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EVALUATION OF SCHOOL OF PUBLIC HEALTH PROJECT  
(660-0101)

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Executive Summary  
School of Public Health Evaluation 1987

The School of Public Health at the University of Kinshasa Project was started in 1985 under a contract with the Government of Zaire, Tulane University of New Orleans, and the Agency for International Development. The goal of the project is to provide Zaire with the capacity to produce the leadership manpower it needs to provide health services for all by the year two thousand, and to control the numerous endemic diseases and to address the problems of child survival. The objectives of the project are to: 1. develop a fully independent and accredited School of Public Health operating at the University of Kinshasa (UNIKIN) serving Zaire and other Central African students. 2. Develop a series of long term and short term programs for undergraduates and post graduates. 3. Establish an applied research program adopted to the health problems of Zaire and other Central African countries. 4. Library. 5. Field Management Research Centers. 6. Renovation of the nursing/allied health sciences building on the UNIKIN campus. 7. Establish a public health laboratory.

Background: The project grew out of discussions between the University of Kinshasa, the department of higher education, the department of public health, the Eglise du Christ au Zaire, and various other actors in the health sector. The original idea was raised several years ago by the former rector of the University who foresaw a need for a united system to train higher level professionals in country in a regional institution that would offer this training to neighboring francophone countries. Subsequent to this the Basic Rural Health project (660-0086) and the Universities' department of public health collaborated in offering short term courses for rural health zone participants. While this collaboration worked well, the process demonstrated that the training needs for a country as vast and as populous as Zaire could not be met by annual ad hoc training during the universities' summer vacation.

The need to create a school of Public Health at this time stems from two considerations. One is that foreign schools are unable to provide the best preparation for working in the subsaharan health environment. The second is that the institutions in francophone sub-saharan Africa capable of providing appropriate training (LOME and COTONOU) cannot train more than one or two students per year from each country. Zaire's projected needs are for approximately 750 masters level health leaders (physicians and nurses for rural health zones, about 30 MPH graduates per year) the above statements were paraphrased from the project paper.

Achievements:

The school of public health has been established in the medical school department of Public Health. It should evolve into an independent institution in the UNIKIN as it grows in faculty and student numbers. The school received its first class of full time student on October 1986. The school has provided an academic program at the post graduate level for twenty two students of which 18 were physician administrators at the rural health zone, the sub prefecture and regional levels. The others were a chemist, a pharmacist, a journalist and a faculty member. The evaluation team felt that the curriculum was comparable to a U.S. or European program for study. The school year is-

divided into four blocks: quantitative measurement (biostatistics, epidemiology, computers and demography) health administration, public health interventions (child survival, water and sanitation, tropical diseases including AIDS, etc.) and behavioral sciences, and research methodology. Field training was performed in each block.

Short courses have been offered on the subjects of "microcomputers and nutritional surveillance", "micro-computers and information systems", "management and primary health care". A course on AIDS is planned for the fall.

The building provided by the University required significant renovations which have been delayed by a lengthy approval process on the parts of all involved. The building cost was grossly underestimated by the AID engineer on the design team and with the recent rapid rise in Zaires' inflation rate the building costs have skyrocketed several fold. As a result of the delay in construction neither the library nor the public health laboratories have been completed, although books and equipment have been ordered. The plans for these two elements were considered sound by the evaluation team. A computer laboratory was developed at the temporary site and functions very actively in the teaching and research programs.

The development of the field research and training program sites is in progress, but due to a lack of staff no decision has been taken on which location will have some construction to turn it into a more permanent base. Training and research are taking place in two areas located within three hours drive of the school. There were three rural field training exercises during the year. There were numerous recommendations for improving the field training. They include changing the objectives to more closely reflect the priority placed on management training, lengthening the time devoted to field training sessions, and adding a full time field training staff to plan and manage the field training and research programs.

Applied research programs are in progress or planned for the areas of nutrition surveillance, AIDS, family planning, breastfeeding, primary health care, diarrheal diseases, and health economics.

The evaluation team attempted to assess the prospects of the school of public health interns of the following: 1) accreditation, 2) independence from the medical school, and 3) sustainability. On the topic of accreditation, the team learned that the government of Zaire will undertake the accreditation process through the University system and the Ministry of Higher Education. There is little likelihood that the school would agree to an outside agency performing such a function. The team suggested that the project might want to use the self study process recommended by the Council on Education for Public Health in order to prepare for any assessment. The question of independence for the school was discussed with several high level UNIKIN leaders who support the independence of the school of public health when it reaches the point of size and complexity that an independent entity is a viable alternative. On the question of sustainability it was determined that the Zairian and foreign students are being highly subsidized by the government of at this time. Those foreign students sponsored by bilateral and multilateral agencies pay \$4,000 per year for tuition plus room and board. No effort has been made, however, to speak an equitable fee to cover the higher costs of Public Health Education. Earnings from research studies and short

courses will make an unknown contribution to funding other expenses. Tulane University has started a fund raising effort for an endowment, hoping to cover core cost imperpetuity.

The major problems of the project at present relate to the delay in completing the building, the high rate of inflation coupled with the decline in the exchange rate for U.S. dollars. Both problems are ones with which USAID/Kinshasa and the project directors are attempting deal already.

The following are the major recommendations:

1. Revise the project budgets for USAID and counterpart funds to reflect the reality of the change in the monetary value of the currencies and the elevated cost for the building renovation, and the need to adjust the scheduling of the departure of expatriate faculty and staff to allow overlap and completion of PhD program required research.
2. Revise the field training program to reflect the priority on management and child survival.
3. Include teacher training university level (pedagogy) in the training program for those studying abroad.

### Abbreviations

ADDR - Applied Diarrheal Diseases Research  
CCCD - Combatting Childhood Communicable Diseases  
CES - Certificat d'Ecole Supérieure  
CISSPAC - Center for higher Education in Public Health in Central Africa  
CONAPOP - National Population Committee  
GOZ - Government of Zaire  
PAHO - Pan American Health Organization  
PRICOR-II - Primary Health Care Operations (Phase 2)  
SANRU - Soins de Santé Primaire en Milieu Rural  
(Basic Rural Health Project)  
SPH - School of Public Health  
TIPPS - Technical Information on Population for the Private Sector  
UNIKIN - University of Kinshasa  
WHO - World Health Organization  
FONAMES - Fonds National Médico-Sanitaire  
CEPLANUT - Center for Planning and Nutrition

Attachments

C-1 - Biostatistics and Epidemiology comments

C-2 - The Teaching of Demography

E-1 - Description of Sonabata and Kisantu rural sites

E-2 - Field Training Objectives

E-3 - Student Attitude about Field Training

F-1 - Survey of Research Activities

G-1 - US. Advisory Committee to S.P.H

H-1 - New S.P.H Photographs

Appendix

Scope of Work

List of Documents Received

Organisation Chart of Council of Associates

## A.I. Project Management

The project management staff is sparse but is getting the job done. At this point there are sufficient administrative personnel to handle the routine chores, but they are expending a tremendous effort to do so due to the lack of the Zairian Assistant administrator who left the project. The biggest management hurdle that has not yet been completely overcome is the completion of the renovation of the school building. This part of the project is about eighteen months behind due to a variety of problems to be discussed below. Two financial management audits have been done and the recommendations implemented. This latter fact has significantly improved the management systems in all areas. The other management constraints are beyond the control of the project: it is the slow dispersment of the counterpart funds for the project by the government of Zaire, inflation, and the falling exchange rate for the dollar against European and Japanese currencies.

**Personel:** The staffing pattern of the central office calls for a Director and co-director of the project to share both administrative and programmatic and teaching responsibilities, as well as overall leadership. Two assistant administrators are to share the roles of carrying out the administrative functions in a way that creates a system of checks and balances for resource and financial management. There are a realistic number of subordinate administrative staff for the time being, although more may be necessary when the new building is opened, and when faculty now training abroad return. Management decisions are taken in a weekly meeting, the "gestion committee". At the present time the U.S. co-director and assistant administrator seem to be handling most of the interface with A.I.D. These processes have proceeded smoothly throughout the life of the project. The major area of personnel shortage is in the operation of the rural field training sites, which require a great deal of logistic, communications and transportation support as well as program development work. At this time responsibility for the support of field training activities and the construction supervision is provided by the sanitary engineer of the faculty as an additional duty. This does not seem to compromise his teaching and research activities.

The director of the project deals primarily with the G.O.Z. management responsibilities and liaison work. Except for the flow of counterpart funds, the G.O.Z. support has been very strong.

The project technical advisory committee has met several times to give advice on a variety of issues ranging from academic to managerial. The committee has dealt with the following kinds of issues: relations with agencies, research ethics, counterpart funds, audit results, long term plans, needs of the government and private sector. The representative to this important committee include the following agencies: The University of KINSHASA administration, the ministry of higher Education, the Ministry of Health for Primary Health care programs, the organization of Protestant churches (Eglise Christo Zaire), the Catholic churches, USAID, Forames (coordinating agency for donor support to the health sector), and W.H.O. The USAID representative has the role of coordinating with the A.I.D. funded health and population and nutrition

projects. Due to the wide variety of projects supported by the mission there is no easy way for the project which are very involved in working with the school to make as much of a contribution to the project as they might be able to. One or two of the projects are funding students attending diploma courses and thus represent a part of the consuming organizations. Several expressed a desire to be able to have their views presented to the technical committee directly, since the working relations are so close to the school's work in such areas as field training and research. For example the training sites in the rural areas are usually at SANRU project mission rural health zones and hospitals. Coordination of the logistics, transport, lodging and field service activities might be an area of significant input.

RECOMMENDATION: THAT THE AID HEALTH OFFICE AND THE SCHOOL OF PUBLIC HEALTH(SOPH) ARRANGE A JOINT MEETING OF THE AID/ZAIRE SERVICE AND RESEARCH PROJECTS WITH THE SOPH TO DEVELOP A MECHANISM BY WHICH THE IDEAS AND CONCERNS OF THESE UNITS MIGHT BE MORE EFFECTIVELY EXPRESSED FOR THE BENEFIT OF THE PROJECTS.

The project implementation plan is still a useful document even though the time frame for some of the critical items such as the building construction and the rural field practice and research center development have slipped considerably. The educational and research programs have moved forward according to the schedule and the plan helps keep those relationships in perspective. This plan calls for a reduction in expatriate presence starting with the third year. This part of the plan may have to be revised considerably because of the later returns of faculty members being trained overseas, and the need to have a greater overlap between expatriates and Zairians. The latter are being required to obtain PhD degrees, and will have to do their thesis research upon return from overseas, as well as start taking part in the teaching and field practice programs. If these new faculty become overly involved in teaching, they may never be able to complete the research or the degree. The University insists that post-graduate degree program instructors have a terminal degree-Doctorate.

## 2. Finances:

a. Annual budgets are submitted for both the USAID support and for counterpart funds. The USAID budget year runs from 1 October to 30 September, while the counterpart fund budget covers the calendar year. The counterpart fund budget is now being forecast ahead by A.I.D. for two to three years in order to give the mission an opportunity to use the funds where they are most needed. Also in the case of the counterpart funds as they relate to the school of public health, it is now necessary to make a massive shift of those funds by the mission to cover the enormous underestimation of costs made by an A.I.D. staff during the project design.

b. The budget expenditures are clearly in line with the project goals and objectives. 41 percent goes to TA, 15 percent goes for training, 12 percent for commodities, 39 percent for travel, 2 percent other cost, 9 percent inflation, 15 percent contingency.

c. Following the most recent audit and consultation by The Coopers and Lybrand auditing firm, the project corrected some routine financial management procedures and has developed a computerized accounting system for USAID funds, local currency and research grants and contracts. This system greatly facilitates the ease with which the project can keep track of funds, obligations and disbursements. and supports the system of checks and balances mentioned above.

RECOMMENDATION: THE PROJECT WILL HAVE TO MAKE A REVISED AID AND COUNTERPART FUND BUDGET TO ACCOUNT FOR THE INFLATION OF THE ZAIRIAN CURRENCY, THE FALL OF THE U.S. DOLLAR AGAINST EUROPEAN CURRENCY AND THE RISE IN THE COST OF THE BUILDING RENOVATION.

RECOMMENDATION: THAT THE AID HEALTH OFFICE AND THE SCHOOL OF PUBLIC HEALTH(soph) ARRANGE A JOINT MEETING OF THE SERVICE AND RESEARCH PROJECT WITH THE SOPH TO DEVELOP A MECHANISM BY WHICH THE IDEAS AND CONCERNS OF THESE UNITS MIGHT BE MORE EFFECTIVELY BE EXPRESSED FOR THE BENEFIT OF THE PROJECTS.

#### B. 1. Overseas Training

B 1 Within the UNIKIN system one must have the Ph.D. to qualify as a professor. Thus the plan for training of persons selected as future faculty members of the School of Public Health was based on having an orderly series of suitable candidates spend an adequate period abroad to meet this requirement. This was envisioned as at least long enough to complete pre-dissertation studies, with the thought that some candidates might finish their dissertation in Zaire. Continued presence of qualified senior faculty members would thus be necessary to provide enough supervision to satisfy the university granting the degree that its standards were being met.

A detailed program for training abroad was therefore drawn up, subject by subject and person by person, as described in the Project Paper. Unfortunately, it has been impossible to adhere to this plan-in-actuality because of such factors as the delay in starting the project, the need to have Zairean faculty return and be on the job sooner than originally planned, and the UNIKIN requirement for professors to have the Ph.D. In addition, the International Monetary Fund has imposed the constraint on the Government that no new positions may be added in the government sector, making it essential that prospective SPH faculty members be selected from those already on the University roster.

It thus became necessary to accelerate the training schedule and to double the number in training abroad:

Two are in Belgium at the University of Louvain, one a physician in the epidemiology of Occupational Health and the other, also a physician, in the epidemiology of nutritional problems.

One physician, in the field of maternal and child health, is completing an M.P.H. at UCLA, with the expectation of doing a Ph.D. at San Diego State University with Dr. Samuel Wishik, who knows Zaire well.

Four are at Tulane, all M.D.s. One is concentrating on the epidemiology of diarrheal diseases, one on the epidemiology of pediatric infectious diseases, one on nutrition (he will shortly be moving to Tufts) and one on demography and family planning.

The eighth person is at the School of Public Health of the University of Alabama doing an M.P.H. in Occupational Health.

The modifications that have been made seem well thought out and justified as making more likely the availability of a qualified Zairean staff at the earliest possible moment. There is need to keep this goal as a priority but it would be a mistake to let overeagerness imperil the already large investment in a high quality school by withdrawing foreign advisers before those needing supervision have completed their Ph.D. dissertations.

In addition to planning for faculty to cover the most evident priorities in Zaire, as has been done, it is essential that basic needs in public health techniques be covered in the teaching. Not provided for yet in regard to future faculty is the need to identify a senior person in teaching administration, theory and practice, and one in the fundamentals of environmental health, water supply and sewage disposal.

#### RECOMMENDATIONS

1. The changes made in the original training plan should be endorsed and the scheduled withdrawal of foreign advisers should be reviewed carefully in the light of these changes. There should be at least two advisers maintained through the 1991-92 academic year, particularly to provide supervision of Ph.D. candidates.
2. Provision should be made for training abroad of Zairean professors of health administration and of environmental health, particularly in regard to water, sewage and food protection.
3. Since it is to be expected that one or more of those currently involved in overseas training will not fulfill the plan, provision should be made to fill gaps that will inevitably arise.

## The Diploma Programme

1. Within the Zairian system, modeled on French and Belgian experience, an educational career comprises several steps after secondary school. The first of these, comparable to a university undergraduate programme in the U.S.A., leads to the LICENCE, representing a basic level of competence in the student's field, e.g. economics, pharmacy, etc. With this in hand, a student can seek a higher degree, DIPLOME d'ETUDES SUPERIEURES, usually requiring two years and a "memoire" (thesis). A DOCTORAT, equivalent to the Ph.D. in the USA, requires several additional years and defence of a dissertation. Medicine is an exception; after six years one receives the degree of Doctor of Medicine but this is not a true "doctorat".

2. The CERTIFICAT is granted usually for specialised studies in a particular field. Incidentally, the first independent School of Public Health, Johns Hopkins, granted a Certificate in Public Health after a one academic year program, during the first 2 decades of its existence. A Master's in Public Health was not awarded at Johns Hopkins until 1939.

3. The objectives of the present course at the School of Public Health leading to a Diploma in Public Health are based on the concept of the team approach used by all USA schools of public health. In this concept, public health activities are carried out by a team of persons including both, professionals with different basic backgrounds, and non-professionals, working together for a common goal. In the early years the team leader was always a physician but, as multi-disciplinarity has become better understood and more practical in application, the most competent person, regardless of his or her position, may be head of the team. Thus, this diploma program sets out to cover all the basic techniques of public health, involving many disciplines other than medicine, such as sociology, demography, economics, political science and education.

4. A parallel but quite different development is taking place in Brazzaville; a Center for Higher Education in Public Health for Central Africa, CIESSPAC, is designed to prepare advanced specialists in epidemiology. For the time being only M.D.s will be admitted and the first class will start in September 1988. The course will be comparable in grade, difficulty and time expended to the training leading to certification of an M.D. in a clinical speciality, lasting four years leading to a "Certificat d'Etudes Superieures (C.E.S.)". The Center is supported by the French government and, like UNIKIN, has the endorsement of WHO.

The Center is based on a quite different approach from the UNIKIN School of Public Health, one that arguably is excessive for African needs. Some believe, however, that this length of training is essential to establish the standing of public health as a medical speciality. Nevertheless, in the view of the Evaluation Team, the UNIKIN program is more practical and satisfies proper academic standards.

6. With the great need for additional trained personnel in Africa it will not interfere and may be beneficial to the School of Public Health to have a quite different kind of post-graduate training center across the river in Brazzaville. It will be desirable to plan for contacts and exchange of ideas between the two faculties.

7. In trying to cover traditional fields of importance to Public Health and particularly those for a developing country like Zaire, the Kinshasa diploma programme is unusual in at least three major respects:

- 1) It is based on using the approach of teaching students that theoretical concepts need to be interrelated to solve any particular public health problem. This "problem-solving" approach as an effective teaching method is highlighted in the current curriculum at the School of Public Health in Zaire. It was not possible, however, to assess how well this goal is being accomplished in practice.
  - 2) As originally described in the project plan, the amount of time spent in field training within the school year, almost 20%, is substantially greater than at most schools of public health. Detailed comments and recommendations on this phase of the diploma programme are under the relevant heading later in this report.
  - 3) There is an unusual combination of persons directing the effort. Often evaluations tend to concentrate on facts, figures and theoretical implications, without paying enough attention to the personalities involved. In this instance the personalities have had a great effect on the progress of the school. Dr. Kashala brings practicality, public health capability, and extensive knowledge of Zaire. Dr. Adjou-Momouni has an extraordinary balance of long years of experience in many African countries and at WHO headquarters, along with an undiminished and youthful eagerness to use new ideas of value. Dr. William Bertrand has demonstrated quite remarkable drive and imagination, based on a solid scholarly background.
8. Since two of the key figures will be leaving within two years, it becomes important to assure Dr. Kashala the kind of support that will replace the roles currently played by the other two. It is not necessary to seek their "clones", but enthusiasm and drive are important continuing desiderata.
9. From the syllabus, the various courses in the curriculum appear to be of proper breadth and depth, and to cover all the essential techniques and information base comprised in the fundamental areas of public health, including biostatistics, environmental health, maternal and child health, child survival, epidemiologic investigation, administrative principles, community organization, information, education and communication, HIS/MIS systems, and cultural factors. (Attachment C-1). Like any School of Public Health, the aim is to teach principles, knowledge and techniques that are applicable not only to known public health problems but also to those that may arise in the future.

10. Current concepts and developments are constantly emphasized and relevance to the Zairian situation is a paramount theme. Illustrations are drawn primarily from the Zairian experience. Students' attention is regularly drawn to those causes of preventable illnesses and death known to be most common in Zaire, notably the major problems of infancy and childhood, malaria, tropical diseases and the diarrheal diseases. AID priorities, like child survival and nutrition, are emphasized. Teaching of management techniques is a major goal, but how well it is accomplished was not evaluated. The cooperation of SANRU is important in teaching organization of health services for rural areas where the the majority of Zairians live. One cannot assess detail without extensive observation in each course, not feasible in this evaluation. It should, however, be an ongoing concern of the faculty as well as external advisors. Specific comments on some courses are presented as recommendations.
11. A major current problem, AIDS, is covered satisfactorily in the teaching, given that the only known preventive technique is based on education of the entire population. Within present resources of the School of Public Health, the many other pressing responsibilities of the current temporary expatriate faculty, and the existence of special units dealing with AIDS, research at the School on AIDS would depend on outside funding. This may well be possible, particularly since governments are interested in cohort studies and pharmaceutical corporations are seeking rigorous and reliable testing of potential remedies or preventives.
12. As is common with new initiatives the programme may be too ambitious, and some courses demand thirty hours a week of class time. This should be adjusted in the future.
13. Wisely, the faculty have decided that in the first year of active teaching, faculty time and student interest should not be distracted by offering a variety of electives. At present all students are taking the same courses. There is general agreement, however, that electives are desirable in the future, when the school reaches an adequate degree of maturity and has a stable national staff.
14. Recommendations
  1. The general approach of the teaching program, with the modifications already proposed by the faculty for the future, is sound and should be continued. Specific suggestions for change are presented in subsequent recommendations.
  2. While maintaining at least the current emphasis on field training in the total curriculum, the faculty should consider the modifications of organization and procedures detailed under the heading of field training.
  3. More attention should be paid, both in academic theory and in field training, to the kinds of responsibilities a chief of zone in Zaire will have. Since most students have been chiefs of zones, there should be increased emphasis on reviewing and updating the overall tasks of this post. More extensive use of case studies, as well as of coordinated field training experience, would clarify the comprehensive responsibility of the new zone chief.

4. Thought should be given to having students, perhaps in groups, assigned responsibility for one particular zone throughout the year. By studying one zone in depth, each student would learn not only the range of problems faced but also methods of analysis and proposals for comprehensive solutions on a zone-wide basis. This needs to be correlated with the plans for field training, discussed separately.
5. Expanded instruction in the history of Public Health in Zaire would be a useful way to help students learn from the past and not to retrace paths already taken.
6. Greater attention should be paid to the number of hours of instruction per week. Students will be increasingly expected to spend substantial hours of study outside of class on such activities as computers and reading in the library. Actual class work might best be limited to not over 4-5 hours per day and should be further reduced as more profitable outside-of-class work can be offered. Adherence to the UNIKIN norm of Saturday classes would permit better distribution of class hours.
7. More advantage should be taken of the extensive experience possessed by some of the students at the School of Public Health many of whom have worked previously as zone chiefs. One way to do this would be to arrange a seminar with currently active field staff where an exchange of ideas would be mutually beneficial both to staff and to the other students.
8. As permanent staff return, the number of individual instructors in any course should be substantially reduced. Teaching is best carried out when students in any given course have continuing contact with a particular teacher.
9. School health, in its broadest context, and the rational use of scarce medical resources for school children should receive greater attention in the curriculum, despite the fact that this age group has the lowest mortality rate in the life span. As in most developing countries the future of Zaire depends on its children. A crucial aspect is their attitudes towards health developed during the school years, when all human beings are most susceptible to education. Health education (IEC) is a crucial aspect of improving child survival and the school is an ideal site for such education.
10. As part of the information, education, and communication programme more attention should be paid to teaching by example. Hearing or reading about the importance of personal hygiene or the dangers of cigarette smoking can make little impression on a public that sees a health officer smoking or a health center with poor sanitary facilities. The School of Public Health itself should try to set the best example in its own health practices.
11. Obtain the management case studies and epidemiology training material development by SHDS project (698-0298) from AFRO and AFR/TR/HPN.

### C.1. Biostatistics and Epidemiology

The courses of biostatistics and epidemiology form the most essential core courses taught in a school of PUBLIC HEALTH. AT THE UNIKIN SCHOOL OF PUBLIC HEALTH IN ZAIRE .THEY were therefore TAUGHT IN THE FIRST BLOC of courses .(This course was developed before the academic advisor reached the school, and thus needed to be reformed to the standard recommended and approved by the academic committee.)THE BIOSTATISTICS COURSE COVERS THE BASIC USEFUL TOOLS OF BIOSTATIST SUCH AS "CHI SQUARE" AND "T" TEST ANALYSIS ,STANDARD DEVIATION, MULTIVARIANT ANALYSIS.SENSITIVY AND SPECIFICITY, CENTRAL TENDANCY, AND CROSS TABULATION applied to public health problems such as tropical diseases, AIDS, contagious and chronic diseases.. MUCH MORE WAS PLANNED FOR THE COURSE THAN COULD BE TAUGHT IN THE TIME AVAILABLE.

A SYLABUS WAS BEEN PREPARED FOR USE IN THE 87-88 COURSE WHICH SHOULD HELP A GREAT DEAL. THE STUDENTS GENERALLY WERE WEAK IN THIER QUANTITATIVE AND ANALYTIC SKILLS, THIS CREATED A TEACHING PROBLEM WHICH WAS NOT PREVIOUSLY ANTICIPATED.SEVENTY-EIGHTY (70-80%) PERCENT OF THE STUDENTS PASSED THE COURSE. THOSE FAILING WILL BE ABLE TO MAKE UP THE COURSE OR RECEIVE A CEERTIFICATE OF ATTENDANCE.

THE TEXTBOOK USED FOR THE COURSE IS FROM France-SCHWARTZ,D.;Mmethod Statistic a l'usage des Medicines et des Biologist-3rd edition. Flammarion Medical Science,Paris 1986. The instructor for the course was Dr.Mulamba.of Zaire. The Epidemiology course was taught by the project direstor, Dr. Kashala. The course was oriented to a European perspective of the subject, and the teaching followed the methods more common on that continent. The study of the causes and distribution of the tropical and infectious diseases, including what is known about AIDS, provided the subject matter to learn the skills and methods used in epidemiology. The epidemiologic methods which were used in the field practice period which followed the " bloc".

Student performance was hampered by the lack of refined analytic skills which will be reinforced next school year-by-self-study and computer aided exercises. The course has been revised-and a-sylabus-has been prepared for the coming school year. the textbook was of Canadian origin-Jenicek,M. et Clerroux,A.Epidemiology, Quebec,1984 3rd edition. The teachers indicated that the SHDS epidemiology course material would be of extreme values.

- C.2. There are 22 students currently enrolled, 18 physicians, a journalist, a pharmacist, a chemist and an administrator. Within the uncertainties of the human existence they represent the priorities spelled out in the project paper. Costs of training are discussed under sustainability.
- C.3. Review of the curriculum vitae of full time faculty members and many of those who are part time reveals a high degree of competence, quite appropriate to their duties. On the other hand faculty salaries are too low to retain the best teachers and research. Usually they begin to seek a secondary source of incomes which rises in importance overtime and eventually results in their departure. The faculty at the present consists of: 1 Zairian with Ph.D., 5 Expatriates with Ph.D., 1 expatriate MD, MPH, 36 Zairians MD, 4 Zairians MD, M.P.H.

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## SHORT TERM TRAINING

The staff of the SPH has been involved with a number of short-term training programs in the school's first year of existence. "Management of Primary Health Care" was the first such course conducted by the SPH. Fifteen Zaireans participated in this two-week course. The one month course, "Microcomputers and Information Systems in Public Health," was offered twice. The first presentation had 8 Zaireans and 3 Nigeriens. The second, funded by the government of Niger, had 5 Nigeriens and 3 Zaireans.

A short-term course dealing with "Microcomputers and Nutritional Surveillance" will be offered in July. Approximately 30 participants from throughout Africa are expected. The demand has been so great that another offering is planned for Fall 1987.

Another short-term course this Fall will deal with public intervention for AIDS and will include information, education, and communication techniques. This two-week program is intended for health professionals throughout Zaire.

These courses are all directly related to the training needs of health ministry services. This is particularly true with reference to microcomputers. Further training for government employees in this area is being considered for the future.

The first short-term course, "Management of Primary Health Care," was particularly useful in that it selected candidates who in turn could train others. As a result, many of the field people that assist SPH staff came from that program. The microcomputer courses were also aimed at people who, in turn, would teach others.

The SPH has the staff capability to conduct short-term courses in many areas. Possible courses include Management-Continuing Education for graduates, Demographic Techniques, etc. One limiting factor this past year has been space. With the completion of the new building, adequate space will be available to offer at least one course at any time during the academic year. Furthermore, the SPH will still maintain part of its current space.

The SPH can also serve as a host for other related organizations who might offer short courses, and can offer specially designed short courses for other project. An example is the one on management to be offered to CONAPO next year.

Recommendations:

1. Short-term courses are an important part of the services offered by the SPH. We recommend that the number and variety of such courses be expanded in future years.
2. We recommend that the SPH look into the possibility of developing continuing education short courses for its own graduates.

## POPULATION AND FAMILY PLANNING

The one week module on Demographic Techniques is inadequate to the needs of the program. It is impossible to cover the materials listed in the teaching objectives in 30 hours. In Zaire where population growth is an issue and where family planning practices can contribute to both reduced fertility and child mortality, students in Public Health should receive adequate training in Demography. Few vital statistics can be developed in the absence of denominators. In a sense, then, the knowledge of Demography is basic to understanding all public health measurements.

Because of the time limitations, it is not possible to cover all the appropriate concepts and techniques ~~currently in use in Demography and Family~~ planning. Students should know how to construct and apply basic demographic techniques and family planning and ~~contraceptive use~~ measurements. (See Attachment C-5).

Insofar as possible, population and family planning issues are addressed in the field training. Again, time limitations in the field necessarily make such activities less than adequate.

Recommendations:

1-The module on Demographic Techniques should be expanded to 60 hours or two weeks. The additional time should be allocated as follows:

a-More detailed discussion of demographic techniques, particularly in mortality and morbidity.

b-More discussion of the use of demographic data in vital statistics and in the estimation of local area population..

c-More discussion of measures of contraceptive acceptance and the arguments for and against their use.

d-Greater utilization of computer software such as RAPID to develop better understanding of population issues.

e-More discussion of population policies including those of the government of Zaire. (See Appendix for a more detailed discussion.)

2-New materials should be developed ~~particularly suitable to the needs of~~ Zaire students. These should include software that illustrates the use of various techniques. Such materials could then be used in the field by graduates of the program.

3-Most SANRU health zone chiefs are already running small family planning program. Perform an analysis of ~~their training needs and add these family~~ planning subjects such as I.E.C. ~~to the curriculum.~~

4-Most SANRU health zone chiefs are already running child survival programs with child spacing and nutrition interventions. Perform an analysis of health training needs in child spacing and nutrition and add those subjects to the curriculum in adequate amounts of time.

## D-1 Library

Library facilities in Kinshasa are extremely inadequate. The medical school has a limited collection of older texts and a spotty array of journals, quite incomplete. There is no budget at all for subscriptions and they are dependent on donations from such groups as the Conference of Medical School Deans for any current material. There is a good "postgraduate" reading room, where the journals are kept and to which the students have limited access by special request. The general student reading room has about 50 individual study desks but these appear to be used mostly for study of notes. Essentially no texts are owned.

Thus the plans for a separate library for the School of Public Health based on the microfiche collection developed by the Rockefeller Foundation are sound. This will give them the most important public health journals. Inclusion of a number of clinical medical and basic science journals is good strategy in establishing good relations with the medical school. SANRU is participating financially in the purchase of the collection and will collaborate actively in exchanging library materials. The library at Tulane University is exchanging computerized data with the project via mailing of diskettes. Consultation on Francophone literature is being obtained from the WHO Reference Library and the African Regional Office. Two potential short-term consultants are Prof. Beghin of the University of Anvers and the Office International de Librerie in Brussels.

### Recommendations

1. Continue with present plans for the library. Plans for funding maintenance of the collection after the project ends will require special attention.

2. Explore with WHO the designation of UNIKIN as the Zaire depository for all WHO publications. Seek courtesy subscriptions to PAHO/WHO and Canadian public health journals.

3. Urge WHO to initiate computer linkage among African medical schools as in Latin America (BIREME).

4. Seek alternative resources for building and maintaining library such as UN agencies, Private foundations (Ford, Carnegie and Rockefeller), medical societies and public health associations.

5. Explore the possibility of establishing a computer linkage with health library networks.  
(medline etc.)

D. The laboratory of the School of Public Health will play an important role in the training of the students in the following four areas: microbiology, parasitology, environmental chemistry, and medical support. Students will be expected to be able to perform the common techniques and be able to manage the laboratory. During the past year the students were unable to use the planned laboratory as construction was not finished before the school year ended. Instead the students were taught about management problems such as lead times, maintenance, specifications for ordering supplies and equipment, reagents, sources of supply, quality control concepts etc. Some methodology for microbiology and drinking water testing were taught. A field trip was made to the water filtration plant to demonstrate the water flocculation, settlement ponds, sand filter and chlorination system. The laboratory will be able to perform the following kinds of tests when completed: chemical analysis of solids and liquids by spectrophotometry; pH, dissolved oxygen, bio) assay, microbiology and parasite identification, food contents analysis, hematology, and malaria smears. The school laboratory will take on increased importance as the project moves from a diploma program to a certificate and a masters degree. It will also serve as training ground for the students to perform field studies which require laboratory backup. Rural health zone labs can do simple tests such as hematocrits and simple microbiology. The lab director predicted that there will be more environmental health students in the future who will rely more on laboratory tests than do the health inspectors and medicine chief de zone, now being trained. The data processing laboratory has already been established and students have easy access to the ten micro computers available to them. The training program for computers starts early in the school year, so the computers are expected to be used for data processing and word processing from the start. The laboratory contains both clones of the IBM/PC and the Zenith lap top models. The computers are run on batteries which prevent problems from the surges of current which are very common in the zaire electric system. The computer capacity has already shown its value for the didactic learning process in epidemiology and bio statistics, as well as in the research and management areas as discussed elsewhere. Both the public health laboratory and the computer laboratory should continue to be developed in support of the training, research and service programs. There is no reason to think that the emphasis should be shifted elsewhere in the development of the school of public health.

E1. Review of the field training material and visits to field training sites point to a need for rethinking how this important learning experience can be made more relevant and effective. The field training objectives (attachment F.1) as spelled out by Dr. Swartz seem to focus more on research and data collection and management of data than on the use of data in managing health systems as is supposed to be the priority of the Diploma program. The frequent short stays in the rural training centers are so overburdened with the demands of logistic and transportation problems that the students do not have time to get settled and into their field work before it is time to return to class. The orientation of the field experiences is not focused on the experience of learning management skills and applying knowledge gained in the classroom, rather to observation and description of the clinical field operations. Student satisfaction with the field learning experience was very low, see attached summary of student comments (attachment F2). The faculty did not appear to have responded to student input or the consultants' recommendations that the field training agenda be restructured.

E-1

## FIELD TRAINING

In general, sites have been adequately selected. Urban sites have been as successful as rural sites with both emphasizing medical formation and learning about the infrastructure of those areas. Two particularly good sites are those at Sona-Bata and Kisantu. (See Attachment E-1)

While the site staffs are adequate, planning for field training is sometimes weak. There is a need to rethink how this important learning experience can be made more relevant and effective. The field training objectives (Attachment E-2) as spelled out by Dr. Schwartz seem to focus more on research and data collection and management of data than on the use of data in managing health systems as is supposed to be the priority of the Diploma program. The frequent short stays in the rural training centers are so overburdened with the demands of logistics and transportation problems that the students do not have time to get settled and into their field work before it is time to return to class. The orientation of the field experiences is not focused on learning management skills and applying knowledge gained in the classroom; but rather to the observation and description of the clinical field operations. Student satisfaction with the field learning experience was very low (See Attachment E-3). The faculty did not appear to have responded to student input or to the consultants' recommendations that the field training agenda be restructured.

Few discussions take place with the site coordinators in the determination of the themes that will form the basis for the training. The student reports, which are quite weak, are not discussed with the site coordinators. There is an absence of unity among the various themes that form the basis for field training.

E-2

Schedules for field training sessions have been properly developed. However, the short time allocated for the field courses precludes adequate practical experience for the students.

There appears to be a fundamental problem in distinguishing between the concept and the organization of field training. Despite the rigor with which the field training has been organized, a dichotomy between theoretical formation and field training is noted.

Little integration of field training into the general education process is noted. Finally, it is almost impossible to prepare the students properly in the time allotted to field training. It is not possible to estimate the cost per student for field training. (See Attachment E-2 Student comments)

RECOMMENDATIONS:

1- Efforts should be made to improve the integration of the field training with the general curriculum. This may necessitate a reformulation of the field training philosophy.

2- A committee should be established to determine the topics to be studied in the field. In addition to the faculty, this committee should include the site coordinators and the coordinators of the medical zones as well as representatives of related projects such as SANRU. At the end of the year, a large seminar should be organized. This would be dedicated to the synthesis of the total experience. In this seminar, all site coordinators, SPH professors and students would take part with a view to deriving new strategies that would contribute to the improvement of the field training.

3- The time allocated to field training should be augmented and a 1-month field session should complete the academic year. This would assure the synthesis of all the knowledge learned during the entire year of field experience. An extended training program might be scheduled as follows:

a- Survey the epidemiology and demography of villages using micro computers. Meet with community organizations.

b- Analyse data to establish calculated community needs. Discuss with community the data based need as compared to their felt needs to develop a set of priorities for action. Plan with faculty for public health intervention in village using village resources (for example SANRU, CCCD or other projects) including monitoring and evaluation.

c- Manage the implementation of public health intervention(s) by students and community using management improvement lessons from the classroom.

d- Evaluation of the project from public and management perspective. Make final report using data collected on health status (e.g. effort like vaccine coverage and number of immunizations given) and management information (e.g. cost benefit analysis, cost recovery etc.)

4- As soon as possible, a Zairean coordinator should be selected. This person should be a professor of medical anthropology.

5- Site coordinators should be integrated with the professional staff of the SPH.

6- Additional vehicles and the construction of a Guest House, possibly at Sona-Bata, would greatly reduce the time spent in driving to and between sites.

7- Arrange for the field reports to be reviewed by the site coordinators and try to improve the form and quality of the field reports.

8- Train the students in the social constraints of organizing a field survey.

9- Send a faculty member for a study tour of field training facilities in other countries.

Concernant les milieux ruraux, deux zones de santé méritent une attention particulière à cause des avantages qu'elles offrent.

Sona-Bata : de toutes les zones de santé rurale visitées, Sona-Bata possède des infrastructures indispensables au bon déroulement du terrain : Existence de nombreux centres et postes de santé gérés par un personnel ayant subi quelques stages de formation en santé publique; ils sont par ailleurs accessibles grâce aux bonnes voies de communication. Mais c'est surtout la grande et longue expérience du Médecin Chef de Zone de Sona-Bata dans l'organisation de santé publique que l'Ecole doit chercher à investir dans la formation théorique et pratique des étudiants. Avec sa maîtrise en Santé Publique de l'Université de Tulane, ce médecin peut bien devenir une personne-ressource pour l'ESP.

Kisantu : l'une de plus anciennes formations médicales du Zaïre. Elle a la même importance qu'I.M.E/Kimpese. Elle dispose des infrastructures matérielles et d'un réseau sanitaire dense qu'elle contrôle. Sa situation géographique lui permet d'assurer une large polarisation médicale. Une expérience dans le domaine de la santé publique depuis 1923. Le Médecin Chef de Zone est spécialiste.

Dans ces deux zones de santé, on trouve des thèmes variés et riches d'enquête susceptibles de contribuer à la formation des étudiants sur le terrain.

2.3. Cependant, la préparation matérielle et administrative du terrain mérite une attention particulière de la part de l'ESP :

- . le travail sur le terrain n'a pas été bien planifié. Et parfois, le terrain a été réduit aux simples visites des sites.
- . Insuffisance de véhicules mis à la disposition du terrain.
- . Absence de contacts avec les autorités politico-administratives des zones rurales.
- . Difficultés de visiter à pied les villages couverts par un poste de santé.

E-2

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REVISED FIELD TRAINING

1

REVISED VERSION

FIELD TRAINING PROGRAM PROPOSAL  
SCHOOL OF PUBLIC HEALTH, UNIVERSITY OF KINSHASA, ZAIRE

Ronald A. Schwarz, Ph.D.

January 1987

This is a revised outline of objectives and activities for the field training component of the masters level program at School of Public Health of the University of Kinshasa. The first version of the proposal was completed in May 1986. Since then the curriculum has been established and the academic program organized into four blocks. This report adapts the original proposal to the four block format. Revisions have been made in all sections and the section entitled TENTATIVE MONTHLY SCHEDULE has been substantially modified. Priority was given to the revisions related to blocs 1 and 2. Additional work is needed to adapt the curriculum for blocs 3 and 4. This is scheduled to occur in February 1987.

This is a working paper for professors, representatives of the Ministry of Health and others participating in the development of the School's academic and research programs. The principle assumption is that the field training should be closely integrated with the other academic and research activities. Requests for additional information, comments and suggestions should be addressed to Dr. Keshala and Dr. Bertrand at the Projet Ecole de Sante Publique, Université de Kinshasa.

The general orientation of the field training program reflects the principles of primary health care expressed in policy statements and programs of the MOH. This focus on "The Components of Primary Health Care" is currently part of the approach used by the SANRU and Sante Pour Tous projects which will play an important role in the implementation of field training component. The field training activities are designed to provide students with the opportunity to critically examine the ecological, epidemiological, organizational and sociocultural dimensions of illness, disease and health services.

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## REVISED FIELD TRAINING

2

### OBJECTIVES

There are three major objectives of the field training component.

1. To reinforce the principal concepts of "public health" and "primary health care" introduced in the formal curriculum.
2. To improve data collection, data management and analytical skills.
3. To provide information needed to adapt the academic program to ecological, social and administrative contexts.

### DISCUSSION OF OBJECTIVES

1. To reinforce concepts of "public health" and "primary health care" introduced in the formal curriculum.

The ecological, epidemiological, sociocultural and administrative perspectives which are the core of the public health curriculum contrast sharply with the individual and clinical perspectives of most health practitioners. The development of a "public health" orientation to illness and disease is, therefore, one of the major challenges of the educational program. Courses in hygiene and environmental sanitation, epidemiology, and community health will introduce students to the diversity of factors related to the distribution and transmission of disease and illness. Field training will develop their capacity to identify and investigate these factors and to take them into account in the design and implementation of primary health care programs.

The field exercises will encourage students to look at health, illness, prevention and treatment from the perspective of the clients -- individuals, families and their communities. It will help them develop an appreciation of social, cultural and psychological aspects of illness and how they are related to decisions such as whom to consult for a diagnosis and where to seek treatment. Field assignments will also increase their understanding of the extent to which principles of public health and prevention are, and are not, already incorporated into belief systems and behavior.

Students will also investigate the organization of health services from the perspective of individuals who plan, manage and deliver them. Training exercises will develop the students capacity to identify and investigate the underlying causes and potential solutions to problems of management, supervision and information. They will also examine health aspects of integrated development with agencies in agriculture, education, transportation and water supply. They will be challenged to identify opportunities as well as the political, administrative and economic obstacles to multisectoral planning and cooperation.

## 2. The improvement of data collection, data management and analytical skills.

Field training in public health may be viewed as analogous to clinical training for physicians and nurses. Just as the medical decisions are based on data collected in interviews, physical examinations and laboratories, health planning decisions are based on analyses of community level phenomena using data obtained through observation, interviews and laboratory tests results of surveys and statistical reports. The field exercises will, therefore, expose students to methodological and behavioral factors involved in planning and evaluation of activities within villages, health centers and zones. They will develop skills to collect, manage and tabulate data from health records and community surveys. The seminars following field work will sharpen their analytical skills and will ask them to consider methodological and organizational issues related to topics such as the organization of epidemiological surveys and multidisciplinary community assessments.

Graduates of the ESP will often be involved in the monitoring and evaluation of health care provided by nurses and village health workers. While the academic program will introduce the theoretical models and methodologies for project and program evaluation, field training will put students into contexts where they can apply their knowledge. Completion of the training exercises require complex judgements, the establishment of priorities and conceptual as well as methodological choices. Students will often be asked to define what key issues should be addressed, what questions should be asked and what combination of methods should be employed.

The demands of the field exercises and seminars will challenge the imagination, intelligence and interpersonal skills of each student. The four to five day periods of field work each month will also give students time to acquire an appreciation of methodological issues and to learn basic skills in the collection and management of data.

## REVISED FIELD TRAINING

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3. To provide information needed to adapt the academic program to ecological, social and administrative contexts.

Extensive field work will have several other direct benefits for the academic program of the ESP, particularly during the first few years of operation. One benefit will be the collection of data and information which could be used to develop case study materials to complement and/or illustrate concepts introduced in books and lectures. Students will be asked to write up problem situations using quantitative and qualitative data collected in the field and to organize classroom exercises based on the information. This approach will challenge their analytical and writing skills and will provide case material which can be integrated into lectures and seminars. It also give students, who in most cases will be experienced health professionals, a chance to participate in a meaningful way in the development of the curriculum.

If the content and pedagogical approach of the ESP is to be truly innovative and flexible, mechanisms for frequent feedback from students and the encouragement of their critical participation is highly desirable. This approach is also consistent with the notion that the academic program of the ESP will focus on the health problems of Zaire and will be adapted to current MOH policies, programs and procedures.

## ORGANIZATION

Staff: Field Training Coordinator (FTC)

The FTC will be member of the faculty, preferably someone with an advanced degrees in public health and one of the social sciences. The FTC should be an experienced teacher/trainer who has also conducted applied health research. In view of the fact that most health care in Zaire is delivered by nurses and mid-level health workers, the FTC should have experience related to the training and management of these health practitioners. He/she should have administrative experience and the ability to manage the financial and logistical aspects of the field program. The FTC will:

-work with the faculty and representatives from FONAMES, SANRU, Sante Pour Tous, Church affiliated groups and other organizations to coordinate the field program;

-conduct field surveys of potential urban and rural training zones and write a report with recommendations on the advantages and disadvantages of each site.

## REVISED FIELD TRAINING

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-serve as the liaison between the university and the Site Training Coordinators (STC) at each rural and urban facility;

-plan and implement logistical arrangements and administrative procedures for field training component including the selection, training and supervision of Site Training Coordinators (STC) in each health zone;

-organize and direct field work seminars held before, during and after field assignments;

-teach field research methods and monitor the students field activities;

-organize joint meetings of students and personnel from the health facility;

-provide feedback to faculty on the implications of field work activities for ESP curriculum;

-work with students and faculty to develop teaching materials based on information collected by students in field visits;

-evaluate student field performance and reports.

### Staff: Site Training Coordinators (STC)

Site coordinators are health officials in each of zones in which field training activities are organized. They are representatives of the agency (i.e. the MOH, PVO or Church group) which organizes and delivers health services in the zone. They should, in principle, be eligible to become part-time employees of the ESP. Their activities will include:

-assisting the FTC in all logistical and administrative activities required to establish and manage field training activities in the zone;

-facilitating contact among health personnel in the zone, community leaders, the field training coordinators and students;

-participation in the planning and scheduling of student activities in the zone;

-supervision and evaluation of training exercises and student performance;

-participation in field seminars;

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## REVISED FIELD TRAINING

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Faculty of the ESP should also participate in the organization and supervision of field training activities related to their courses and on an intermittent basis throughout the year. They will be asked to observe students in the zones and to participate in preparatory seminars and feedback sessions.

## TIME ALLOCATION AND TRAINING SCHEDULE

One week out of every four will be devoted to field training and special studies. Preparatory seminar(s) will be held during the week preceding the field exercises. The seminars will introduce the objectives for each visit and be used to train students in the appropriate research techniques.

Students will spend four to five days per week in field work, write-up and feedback sessions. In the future, as faculty research develops, some field work time may be used for research, meetings with professors and other academic activities.

The organization of students time during the field work week will vary according to the nature and location of specific assignments. For those in urban sites, the suggested format is to have three to four days in field work and one to two days of write-up time and seminars. Students in rural sites, particularly those located several hours from Kinshasa, may spend four to five days in training activities before a final one to two day write-up and feedback period.

Students will also be told to schedule writing time and group seminars while in the field. The exact program will vary for each field visit and will be organized by the ESP Field Training Coordinator (FTC) in cooperation with the Medical Directors of the Zones and the local STC. Additional instruction and guidance will be provided by the FTC and the STC's to individuals and small groups during supervisory visits.

## THE COMPOSITION AND ORGANIZATION OF STUDENT TRAINING GROUPS

Four groups, each with five to seven students. The composition of each group should be as diverse as possible particularly in regard to professional training and job experience. For example, a good mix would include individuals with experience in:

- the delivery of medical services in health centers;
- the implementation of maternal-child health, family planning and/or nutrition services;
- the organization and management of health zones, hospitals;
- the organization and implementation of categorical programs such as malaria control, vaccinations, family planning, environmental health etc.;
- the organization and implementation of training programs for mid-level health workers; and
- the organization and management of primary health programs at the national, regional and/or sub-regional levels.

Insofar as possible groups should be heterogenous in regard to professional education, rural-urban experience, geographical regions and sex. They should include physicians, nurses, administrators and when possible one student trained in economics, sociology, psychology, anthropology or political science.

There are several ways in which the groups can be organized. The suggested strategy for the first year is to change the composition of the groups according to the setting - urban and rural. In this approach, the composition of the four urban groups would remain the same during all urban field training exercises and the composition of the rural groups would remain the same during all rural training. The FTC should organize the groups to maximize interaction among students with different academic training and work experience.

## TENTATIVE SCHEDULE

The field training program is divided into four sections each of which corresponds to one of the BLOCS of the academic program. The schedule of field activities includes two field trips during BLOCS I, II AND IV, and three field visits during BLOC III. The potential volume of work is large enough so that additional visits could be scheduled during any of the blocs without much modification of the program outlined below:

When the field work for each visit is completed, students will write summaries of their activities and results. These will be discussed in seminars at the end of the field work. The reports and seminars will deal with research results, methodology, and the implications of their findings for health planning, management, supervision, and training.

## BLOC 1: METHODS IN PUBLIC HEALTH

Les Objectifs pour la formation sur le terrain et liason avec les objectifs generaux de BLOC 1 et le contenu des cours:

- d'epidemiologie;
- informatique et de la recherche operationelle.

## Problemes Identifies:

Le personnel de sante ne percoit pas d'une maniere globale les problemes de sante qui se posent dans la communaute;

Il s'interesse davantage aux cas cliniques et n'etablit pas la relation entre ces cas, et les communautes d'ou ils proviennent.

## Objectifs de Bloc:

A la fin de la formation prevue dans ce bloc, le personnel de sante doit etre capable de:

- i. identifier tous les problemes de sante qui se posent dans la communaute dont il a la charge;
- ii. quantifier l'importance de ces problemes;
- iii. prioritiser les differents problemes de sante de la communaute;
- iv. prendre les mesures appropriees pour la solution de ces problemes.

## The Organization of Field Visits

Two field trips are scheduled for Bloc 1. Students are divided into four to eight groups according to research topics (e.g. malaria, malnutrition, accidents, diarrhea).

### FIRST VISIT (field visit # 1)

~~Topics: Basic community survey; preliminary epidemiological research.~~

~~Principal field methods: use of maps, mapping, observation, review of documents and medical records, interviews.~~

### Activities and Exercises

Each group will review medical records and other documentation related to the disease they are investigating. They will tabulate data from a sample of the records. Some students in each group will also collect primary data from patients using the data collection instruments at the center and may also ask supplementary questions.

~~Mapping of neighborhoods, villages and households, physical structures (health centers, schools, roads, water sources).~~

The collection of demographic and other background data for the health zone and the catchment area of each health center. A review and analysis of information from non-health sources present in the zone (e.g. schools, non-governmental organizations, other development agencies and programs). In addition to the collection of background data on the community, students will focus their attention on environmental and behavioral factors related to the disease entity they are assigned.

The use of observation guides and checklists to record information.

Topics for write-up and discussion

This section is presented in greater detail for the first visit than for other assignments. It can be viewed as a model for the level of detail which needs to be developed for all field assignments.

### Groups Assignments related to the disease entity

Chaque groupe est responsable pour l'organisation et contenu de la presentation mais les points exprimer au dessous devrait être addresses:

1. Une expose des methodes, des resultats epidemiologiques et, dans certains cas, une comparaison entre les donnees collectees par chaque sous groupe technique. Les tableaux doivent être prepare en avance et distribuees a toutes les participants du seminaire. L'expose devrait addresser les methodes de collecte des donnees:

- planifie au debut

- realise sur le terrain et

- raisons pour les changements

2. Une analyse provisoire des resultats et l'utilisation des resultats pour formuler des hypotheses qui puissent guider les investigations suivants. L'analyse devrait considerer les facteurs ecologiques, socioculturels, economiques et administratives qui soient liees au probleme medecale investique.

3. L'indentification des donnees plus important qui manquent.

4. La precision des objectives et methodes d'investigation pour la prochaine etape (quatre jours sur le terrain). Dans la presentation de son approche, les aspects suivants devraient être consideres:

- le choix d'echantillon;

- l'utilisation des dossiers et fiches medicales;

- les entrevues avec le personnel de sante; membres de la communaute, autres personnes;

- les observations (d'environnement, de comportement dans les contextes differents [clinique, maisons, le quartier, etc.]).

5. Les instruments pour guider la collecte des donnees.

6. L'organisation du travail:

- allocation du temps parmi les activites;

- division des taches parmi les membres du groupe;

## Group assignment related to community survey

-Organisation d'un schema pour la presentation des donnees (consultez l'organisation des themes dans les articles sur la sante communautaire et soin de sante premiere qui ont ete distribuees.)

-Une resume de la situation dans le zone en utilisant la schema etabli.

-Identification des sources des donnees et d'information existant dans le zone et sujets qu'ils traitent.

-Plan pour un jour supplementaire de travail:  
 donnees a collecter  
 methodes  
 division des taches parmi l'equipe de zone.

-Recommandations pour ameliorer les exercice: Reconnaissance du milieu.

## Individual student reports

-Resume d'un entrevue avec un fonctionnaire de sante (les questions et les reponses). Questions importantes pour la continuation d'entrevue:

-Resumes d'un entrevue avec un membre de la communaute. Questions importantes pour la continuation d'entrevue.

-Resume des observations faites dans un endroit (la clinique, le quartier, une maison etc.).

liste des questions a poser pour approfondir votre connaissance de ce que vous avez vu;

une liste des points pour guider l'observation au meme endroit.

## SECOND VISIT (field visit #2)

Topics: This visit is to be closely related to the issues and methods introduced in the operations research course. The major concern is to develop the student's methodological skills and each group will have different topics. The general theme linking the field assignments with the objectives of the bloc is the "solutions to health problems." The specific assignments can range from research related to interventions to solve a specific health problems to methods of financing health care activities. Topics selected for the December 1986 field exercises are:

- community financing and management (auto-gestion);
- external financing;
- health records and information systems and;
- community participation in management (comites de gestion).

Principal field methods: literature review, the design of research protocols and data collection instruments, a review of records (health, management and/or financial), several types of interviews.

#### Activities and Exercises

Day 1: At the ESP: search of the literature, preliminary draft of research protocol.

Day 2: Morning, at the ESP: finalize protocol and research instruments

Afternoon: begin data collection.

Days 3 & 4: Data collection. Students will be supervised by the Professors from the Operational Research course and will hold short feedback and planning meetings at the end of each day.

Day 5: At the ESP: lecture which presents a model and case study for an O.R. study. Time for students to plan and begin their write up.

Week following the field work: Presentation of reports and discussions. Discussion topics:

- Research methods;
- The results of the research activities;
- The operations research approach

**BLOC 2: ADMINISTRATION ET GESTION DES SERVICES DE SANTE****Objectifs généraux de l'enseignement**

A la fin de la formation prévue dans ce bloc, le personnel de santé doit être capable de:

-Organiser efficacement les services de santé placés sous sa responsabilité et;

-Assurer la meilleure mobilisation et utilisation des différents ressources mises à sa disposition (humaines, matérielles et financières).

**Courses:** several courses in the administration and management of human, material and financial resources and, a short course in training methods.

**FIRST VISIT BLOC 2 (field visit #3).**

**Theme:** The organization and delivery of health services.

Most, if not all students will have had several years experience in clinical settings. Many will already have ideas and opinions about problems within health facilities and how they can be solved. The objective of this field exercise is to develop their ability to critically examine the organization of health services and the assumptions on which program and manpower decisions are made. Questions to be addressed include:

-How are the health services within the zone and in the health centers organized?

-What is the authority structure and the resources controlled by people in different positions?

-What are the underlying assumptions on which program and resource allocation decisions are made (i.e. types of services, clinic hours, priorities, schedule of activities, skills required for good medical care)?

**Principal field methods**

Mapping, the use of observation guides, systematic observations of behavior and the use of questionnaires and survey techniques; the analysis and use of administrative and financial records.

**Exercises and Activities**

Mapping of the physical facility and an assessment of physical conditions. Students will investigate the organization and utilization of space and also consider qualitative factors such as cleanliness, lighting and privacy.

Drawing an organization chart for the zone. A comparison of job descriptions, qualifications and actual activities of health workers in a health center. Interviews with medical directors, administrators and health workers about the full range of their duties and what they are actually able to accomplish.

The use of several types of research techniques to investigate recurrent administrative and management procedures and problems. This should include an inquiry into the organization of services, the assignment of tasks, the delegation of authority, and descriptions of actual behavior. All students should briefly cover the full range of health center activities but they will also be asked to pursue specific topics in greater depth; i.e. drug supplies, the repair and maintenance of equipment, the supervision of nurses and community health workers.

Focused observations in different behavioral environments-- waiting rooms, laboratories, pharmacies, examination rooms, and administrative offices. They will describe patterns of behavior, time allocation and will interview health care providers and patients about their activities and attitudes.

Case studies of health care provider roles and of patients as they move through the various settings within the facility. This will include information on the relationship and patterns of communication between staff and between the providers and the patients. [Note: This assignment will involve several preparatory seminars in which each group develops a detailed work plan and schedule of interviews and observations.]

**Topics for write-up and discussion**

A description and analysis of the organization of the facility including an organization chart. Items include detailed descriptions of roles and responsibilities, time allocation, resource utilization, the management of equipment and pharmaceuticals, information flow (communication) and decision-making. The interrelationships among inputs, activities and outputs.

Students will try to determine the extent to which the organization of activities and the allocation of resources are adapted to health care needs of the patients and the operational requirements of the health facility.

Contrasting perspectives on how the system does and how it should work; a description of problems as perceived by health care providers, administrators and patients.

A critical look at the assumptions which underlie the definition of role, the allocation of authority and organization of services. For example:

-To what extent do the actual activities of health personnel correspond to the administrative definition of their jobs?

-To what extent did their training prepare them for the tasks they must perform?

-Should physicians alone be in charge of the planning and management of PHC programs?

The types of changes which might improve the effectiveness and efficiency of services within current resource limitations. For example: redistribution of responsibilities, reorganization of space, changes in the allocation of time and resources among different activities.

#### SECOND FIELD VISIT BLOC 2 (field visit # 4)

The field assignments for this visit build on those carried out during the first one although several new topics are also introduced.

Additional Themes: Health policy and planning, information systems, community participation and human resource administration. Questions to be addressed include:

-How is information communicated within and between different organizational levels?

-What are the styles of leadership and supervision?

-What are information needs at each level?

-What information is used and for what purposes?

-What information should be collected but is not?

-What are the patterns of communication and feedback of information?

Students will also be asked to:

Observe the activities involved in the production of a monthly report by the health facility. Health center staff should explain procedures they follow to the students. Each staff person should also be interviewed about the importance and utility of the records and reports and how they are used to make decisions.

Review zone level monthly and annual reports. Interview the Zone Chief and administrator about the information system.

Review reports and interview regional and sub-regional medical inspectors and chiefs about their information needs and procedures.

Conduct interviews with community leaders and other residents about the activities of the health center and the organization and participation of health committees in the planning and operation of services.

#### Topics for Write-up and Discussion

Issues related to the design of research instruments, the phrasing of questions and interview techniques. A revision of the survey instruments.

A description and critical analysis of the management of human, financial and material resources. Students will analyze the extent to which staff communicates with one another and the their understanding of the problems and concerns of others. They will also consider the extent to which policy and program guidelines of the MOH are, and are not, used to organize the activities of the zone. Specific topics which can be assigned to different groups include:

-The explicit and implicit policies which guide administrative and planning decisions;

-Personnel administration: recruitment, tasks, time allocation, the delegation of authority, supervision, promotion and evaluation;

-To what extent does the "mukonji" complex pervade the way in which the health centers and zone are managed?

-What is the level of community participation in health planning decisions and in the management of health programs?

-What can be done to improve effectiveness and efficiency of services given the human and material resource constraints?

A description and critical analysis of the health and management information systems. Students will report on procedures involved in the collection, storage, tabulation, analysis and reporting of information. They will analyze the quality of the data and its actual as well as its potential use in planning and decision-making. Comparisons will be made between the traditional information system and the new ones being introduced in the Sante Pour Tous and the SANRU projects.

Specific questions to be addressed include:

-Strategies to supervise and evaluate data collection and reporting procedures.

-The use of epidemiological data and other information to develop plans for health programs.

-The discussion and analysis should compare traditional patterns of leadership and decision-making, the "mokonji" style, with those used in the health center and zone.

Other possible discussion topics are:

-The extent to which ethnic, religious and socioeconomic factors affect interpersonal relationships and communication among staff and between the staff and local residents.

-The content short term training which could improve the effectiveness and efficiency of services.

The curriculum for blocs 3 and 4 have not yet been fully defined. The outline which follows is, therefore, based on preliminary interviews with several of the professors responsible for the courses for these blocs and the outline of teaching objectives presented in the "Proces Verbal de la Deuxieme Reunion du Comite Technique" (4 Septembre 1986).

**BLOC 3: SANTE DE LA FAMILLE ET DE LA COMMUNAUTE**  
(field visits 5, 6 and 7)

Themes: Environmental health, health problems and risks of specific groups (infants, mothers, school children, workers and the elderly), the organization of health services targeted to specific groups.

**Objectifs generaux de l'enseignement:**

A la fin de la formation dans ce bloc, le personnel de sante doit etre capable de:

1. determiner les problemes sanitaires prioritaires du groupe vulnérable et prendre les mesures appropriées pour assurer sa protection ;
2. determiner les problemes sanitaires prioritaires du groupe professionnel et productif, et prendre les mesures appropriées pour assurer sa protection ;
3. identifier les divers problemes individuels et de groupe de l'élève et de l'étudiant, et prendre les mesures nécessaires en vue d'améliorer leur sante et leur rendement ;
4. assurer la prise en charge des personnes âgées en organisant un certain nombre des services sociaux et culturels ;
5. utiliser des investigations de masse pour déterminer les conditions sanitaires de l'environnement et assurer une surveillance continue ;
6. déterminer les problèmes liés à la sous-alimentation, identifier et proposer les solutions en harmonie avec les autres secteurs concernés.

Related core courses: environmental health, maternal and child health, health of the elderly, the health of workers and sport.

Principal field methods: observations in community and industrial settings, the use of observation guides and checklists, analysis of medical records, open-ended and structured interviews.

**Organizational and Methodological Notes:**

1. Initial planning sessions with each group of 6-7 students to divide up the specific topics. Areas include: maternal-child health programs, family planning and nutrition, vaccination programs; sanitation; protection of water supply;

industrial health and safety and other preventive programs. Each student should investigate one program conducted in the health center and one that is primarily carried out in the community.

2. Some exercises such as mapping and use of checklists introduced in earlier field visits are repeated here and this pattern will become more frequent in future visits. The training strategy is to build upon the initial exercises through:

-a critique of previous experience(s) using the research technique or instrument and;

-adaption of the technique or instrument to new research problems and situations.

### Exercises

Mapping of neighborhoods, villages and households, physical structures (health centers, schools, roads, water sources). Identification of problem conditions (water supply, latrines, sanitation, animals, food storage and hygiene).

Group exercises to develop survey and other research instruments which focus on the health problems of specific groups at risk.

The analysis of health records focusing on the medical problems of each group.

The identification of key informants for each type of group at risk to be investigated. Individual and group interviews to determine major health problems and possible solutions for each group.

A review of the program reports for the past year and interviews with those responsible for implementation, supervision and financial management. Summary of the time and resources involved in implementation and results.

Observation of the program activities in the health center and in the community. Interviews with practitioners and clients about the organization, content and benefits of the program.

The recording of health related behavior -- interactions between people and the environment. The systematic observation

and assessment of conditions related to disease transmission and health status in general -- the disposal of human and animal wastes, the quantity and quality of water sources, housing, clothing, food storage and preparation. Students will also conduct "walk through" industrial hygiene surveys in factories

#### Topics for write-up and discussion

The types of information which can and should be collected through observation, mapping and the analysis of secondary sources.

Environmental conditions and human behavioral patterns which appear to have a significant positive or negative impact on health status for each of the "at risk" categories. The identification of the major health problems for each group. The use of this information to generate hypotheses for future field work.

The extent to which health programs and activities in the zone take into account and attempt to improve environmental conditions which appear to contribute to disease transmission.

A critical analysis of the assumptions, objectives and activities of programs and health interventions directed toward each "at risk" group. This should cover the organization of activities, training and other instructions provided to those who implement the program, management and supervision.

A analysis of the programs from the point of view of the community, the practitioners and those responsible for implementation and supervision. The extent to which health policies and programs in the zone take account of the needs of each of the "at risk" populations.

An assessment of the costs and benefits of each program and a comparison of the relative contribution of each towards the improvement of the health status of individuals and the community as a whole.

A discussion of alternative and/or less expensive ways in which the program objectives could be reached.

The results of the industrial hygiene surveys: safety hazards, exposure to toxic fumes and dust, protective measures.

How the information on environmental in homes, communities and industrial settings can be applied to topics such as:

- the management of patients in a clinical setting
- planning public health programs
- planning primary health care programs
- resource allocation decisions.

The final organization of field exercises for Bloc 3 requires more information on the content and scheduling of the courses. When this information is made available to the field training staff, the program outlined above will be modified and divided into three visits of one week each. Other field work related to environmental health in the workplace may also be scheduled during this bloc.

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BLOC 4: SOCIETE ET SANTE PUBLIQUE (field visits 8, 9 and 10?)

Theme: Social and cultural dimensions of health: social organization; peoples perceptions of illness, prevention and treatment, the evaluation and planning of community health programs, the participation of community health committees.

Objectifs genereaux de l'enseignement

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A la fin de la formation prevue dans ce bloc, le personnel de sante doit etre capable de:

1. Formuler une politique de l'utilisation optimale des ressources disponibles ;
2. Savoir deleguer les taches afin de s'occuper des taches plus exigeantes;
3. Former la population a la prise en charge individuelle de sa sante.

Related courses: the economics of public health, demography, the anthropology of health and medicine, health education and communication.

Principal field work issues and methods: observation; the identification and use of key informants, social mapping, open-ended interviews, group interviews, use of questionnaires and other interview guides.

Exercises

Interviews to identify key informants and major socioeconomic and ethnic groups within the community. Spatial aspects of these differences (e.g. residence patterns).

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The collection of demographic and other background data for the health zone and the catchment area of each health center. A review and analysis of information from non-health sources present in the zone (e.g. schools, non-governmental organizations, other development agencies and programs).

Individual and group interviews with residents about their strategies to promote health and prevent illness. This will cover topics such as water resources, household and community sanitation, infant feeding practices, nutrition, housing and ritual activities.

The collection of case study material on recent illnesses. This would include in-depth questions about the interpretation of symptoms, consultations within the family and with traditional and modern practitioners, diagnostic procedures, treatment modalities, traditional and modern medicines, and the efficacy of each.

Observations of patients using traditional practitioners and with health care providers in clinical settings. Follow up interviews with patients to get at their understanding of what was happening to them and why. Interviews with residents about health practices within the home.

Visit to local pharmacies. Observations of interactions between individuals who work in these establishments and clients. Interviews with pharmacists, salesmen who dispense drugs and with clients. Inventory of drugs available and illnesses for which they are prescribed.

Individual and group interviews about the organization and role of community health committees.

In addition, there will be extensive training in field methods related to the assessment and evaluation of the full range of primary health care programs. Many of these issues are outlined in the final section on field training which remains to be integrated into the revised program.

Topics for write-up and discussion.

The classification of illness and disease according to categories used by the resident population. A summary of their explanation of the causes of major illnesses and health problems and how they are dealt with in the home and community.

The contrast between the clinical definitions of health and illness and those of the local residents.

Similarities and differences between:

- the organization of traditional and modern systems;
- the assumptions which underlie traditional and modern health systems and;
- the behavior of traditional practitioners and those of physicians and nurses in the health centers.

The extent to which traditional systems of belief and behavior can and should be taken into account in:

- the organization of clinical health services;
- the organization of community health programs;
- the training of village health workers and health professionals.

Factors related to the utilization and non-utilization of health services (access, costs and other factors).

The role of pharmacies and pharmacists in the provision of health care. Changes needed to improve this part of the system.

The role of village and zone level health committees.

Major integrating themes of group and individual assignments during the final months of the program will include:

- the planning of primary health care programs following MOH and WHO guidelines;
- the organization and management of primary health care facilities and programs;
- the relationship of information to decision-making at different administrative levels of the health system;
- the supervision and training of health care providers;
- health and management information systems (monitoring and evaluation).

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THE FOLLOWING ARE SECTIONS FROM THE PRELIMINARY VERSION OF THE FIELD TRAINING PROGRAM WHICH STILL NEED TO BE INTEGRATED INTO THE REVISED FOUR BLOC FORMAT.

Theme: The training and supervision of health care practitioners and administrative personnel.

The objectives of this visit are: to increase the students understanding of the organization and content of training programs for mid-level health workers; to strengthen their capacity to identify training needs and; to examine the relationship between supervision and on-the-job training.

During the month prior to this field visit, students will make one or two short visits to institutions which train administrators, nurses and other health workers. They will learn about the educational programs and interview faculty and students. They will also review the results of evaluation surveys and discuss the methods used and conclusions with the staff.

Related courses: Ties into most courses taught at the school.

Associated MOH activities: the evaluation of education and training programs by the Training Division of the MOH and programs run by SANRU and Sante Pour Tous.

Principal field methods: structured interviews, open-ended interviews, observations at training institutions.

Exercises: Prior to field work in the zones .

A critical review of methods and research instruments currently used to evaluate training programs.

The organization of an training assessment strategy in which students divide responsibility for field work in different training institutions.

The design and administration of questionnaires for interviewing health practitioners, teachers/trainers and those who plan and supervise educational programs for mid-level health workers.

Visits to educational institutions and centers where short term, in-service training programs are conducted. Observations of classroom activities, individual and group interviews with teachers, students and administrators. Topics include curriculum content, program organization, and pedagogical methods.

Interviews with the staff and the participants on the strengths and weaknesses of the educational programs and how the,

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could be improved. Special attention to training activities related to administration, supervision, the management of financial and material resources, and information systems.

### Exercises: In the Zone

Interviews about training with administrators, health practitioners and technicians in the health centers and at the referral facility. They will be asked to discuss and assess the appropriateness of their training for the tasks they now perform. Some questions will deal with recommendations for changes in areas such as: curriculum content, pedagogical strategy, field training and continuing education needs.

### Topics for Write-Up and Discussion

Group task: summary of information from health care personnel in the zones. Their assessment of the training they received and needs for future training.

Individual assignments: description and analysis of information on training institutions and programs for different types of health care workers. Summaries of each program and institutional assessments from the perspectives of the students, the teaching faculty and the administrative staff. Presentation of individual reports within each group.

Group exercise to outline recommendations of ways in which educational and training programs could be improved so as to make them more relevant to the knowledge and skills required. This should cover details of the curriculum and educational methods but should also address broad issues such as continuing education, evaluation and the duration of training programs. Special attention should be given to topics such as administration and management, program planning and supervision, data collection, monitoring and evaluation.

Discussion of the difficulties which might be encountered in trying to implement these reforms and what strategies might be used to introduce changes.

## ADVANCED TECHNIQUES: PLANNING, MONITORING AND EVALUATION

The final four or five field training sessions will cover most of the same topics addressed in the previous six. The approach is to organize field visits within a framework to monitor, evaluate and plan the activities of health centers.

zones and sub-regions. There will be individual and group assignments and, compared to the structured approach of the first six assignments, students will be significantly involved in setting the study objectives, planning the field work strategy and designing the evaluation instruments.

The educational objective is to reinforce the idea that the key to effective planning is a sufficient quantity of the right type of information. This in turn, is related to the investigators ability to raise the relevant questions and to skillfully collect the necessary data. Major integrating themes will be:

- the planning of primary health care programs following MOH and WHO guidelines;
- the organization and management of primary health care facilities and programs;
- the relationship of information to decision-making at different administrative levels of the health system;
- the supervision and training of health care providers;
- health and management information systems (monitoring and evaluation).

The seventh field visit will teach students rapid survey techniques and will be a group exercise held in a new area. The final three or four field trips will be in their regular training sites and directed towards the production of a detailed annual work plan for the zone with variations adapted to the environmental and socioeconomic conditions around individual health centers. Each group of students will organize and implement a plan to assess health conditions and evaluate preventive and curative programs. This information will then be used to prepare a plan to increase the effectiveness and efficiency of health interventions with the same level of resources. The plan should address the full range of health zone activities. job descriptions, the organization of staff, financial planning, community participation, resource management, supervision, health and management information systems, training, monitoring and evaluation.

The plan developed by each individual and group will be based on resources currently available and will include a fixed number of hours for in-service training. Students will be asked to define and justify objectives, their choice of activities and the allocation of resources. Students will make individual

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presentations of health center plans in their work group and each group will develop a zone level plan. These will be distributed to all groups. Seminars will then be held to discuss and critically analyze the program for each zone.

The exercise will challenge the students' imagination as well as their intelligence and research skills. It provides an opportunity to improve their capacity to participate in multidisciplinary planning and in group decision-making. The group planning exercises will also serve to illustrate management techniques.

Theme: Multidisciplinary rapid survey and assessment techniques.

This field assignment will be carried out in a health zone, preferably rural, not previously visited by the students. The purpose is to have them apply the concepts and methods learned during the first six assignments to a new setting. Each group will have four days to conduct an assessment of a zone and outline an annual work plan to improve health services. The short period of time will focus students' attention on the division and coordination of field assignments and the need to set priorities for data collection.

Field methods: rapid survey techniques and others to be decided on by each group.

Related courses: field visits from this assignment on should integrate materials and methods from all core courses, particularly those aspects which relate to planning and evaluation.

Preferred field site: A rural zone not previously visited by students.

### Exercises

Several planning seminars during the week preceding the field visit. Core faculty should participate in these seminars.

Topics will include:

- training in rapid survey methods;
- the division of tasks and coordination within each group;

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-time allocation.

Implementation of rapid survey/assessment strategy by each group of students. One zone will be assigned to each group. The assessment will cover environmental and socioeconomic conditions, the organization and management of health services and resources in the center and the surrounding communities, training and multisectoral activities.

Daily team meetings to discuss results and revise plans for the next days' activities.

### Topics for write-up and discussion

An evaluation of the current organization and activities of the health centers and the zone.

An annual work plan to improve the effectiveness and efficiency of health services.

The utility and limitations of rapid survey techniques.

Theme: Monitoring and evaluation of the effects of health programs on the environment and the population.

The field work during the last three visits are in the regular training zones. The approach is to have students use data they have already collected to generate hypotheses and questions for evaluation research related to the formulation a detailed annual work plan and, an outline of objectives and activities for a five year program. This visit again focuses on environmental, socioeconomic and health conditions in the community. It is designed to reinforce the principles of primary health care planning based on the elaboration of objectives and indicators generated through a systematic evaluation of local conditions and resources.

Field methods: planned by students.

Related courses: the evaluation and planning dimension of all courses.

### Exercises

Detailed planning seminars organized and conducted by students with faculty participation. Focus here is the use of data and insights students already have based on earlier field

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work. The training task is to help students to use their current knowledge to raise in-depth questions and hypotheses which they will use to guide the planning and implementation of their evaluations. The outcome of the seminars will be detailed work plans for individual and group tasks.

Implementation of the evaluation plans designed by the students. This will include field observations, interviews with the population and with health personnel and further analysis of health records and reports.

Feedback sessions in the field.

Write-up and discussion topics

The evaluation of programs and problems, and a preliminary outline of annual and five year objectives and activities.

A preliminary list of questions and hypotheses for the next field visit.

Theme: the evaluation and planning of health services at the health center and zone levels.

The approach is similar to that of the previous visit but focused on the organization of activities at the health centers and zones.

## LAST VISIT

Continuation of evaluation and planning activities. Some attention paid to activities at the sub-regional level. Write-up and discussion of work done by individuals and groups.

## FINAL SEMINAR

Evaluation of the field training program. Recommendations to improve this component.

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TO: Evaluation team members

30 Juin 1987

FROM: Ronald A. Schwarz, Ph.D., Field Training consultant and acting coordinator of Bloc IV.

SUBJECT: Summary of Activities, Field Training Documents and; comments on the implementation of the training program.

(1) On Monday, June 29, all members of the evaluation team received three brief documents which summarize the academic component of the Information, Education and Information (IEI) module and the current student field training assignments.

(2) Dr. Saba Kindu has a complete file of field training documents and memos and a list is attached to this memo.

(3) Three additional files have been prepared which contain an interim version of the basic Field Training Proposal. The original proposal was developed in May 1986 before the schedule of Blocs and modules were organized (Dr. Saba Kindu has this). The copies included in this folder represent attempts to adapt the original proposal to the bloc format. Substantial work is needed to complete this task. It will be done following the completion of the last field visit and the curriculum for the 1987-1988 academic year. Other documents provided include:

- a memo on the criteria for the selection of field training sites;

- memos on the scopes of work for the Field Training Coordinator and for the outside field training consultant.

- a model work plan which outlines the schedule of activities that need to be carried out in connection with each field trip.

These are included to bring to your attention the scope and scale of both academic and administrative tasks required to develop, implement and evaluate the field program. The experience of this year has made it clear that the number and complexity of activities related to the field program require a higher level of manpower, logistical support and faculty time than were originally planned.

This year the program operated without a full time coordinator and several individuals have assumed this role at different times. The current coordinator is Professeur Lapika of the Facult des Sciences Economiques et Sociales. My own direct involvement was limited to the first and last field trips.

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(4) Summary of documents in the field training files.

This is a summary of work done during three consultant visits (April-May 1986; November-December 1986 and February 1987. Total consultant time was approximately 15 weeks. Documents produced by Professor Lapika, who works part-time as the field training coordinator are also included).

#### 1.0. PLANNING STAGE, April - May 1986.

The purpose of the visit was to design a field training program to complement the academic program. The program was developed using the project paper as a guide and supplemented with approximately thirty interviews with ESP faculty, representatives of the Ministry of Health, international agencies involved in the health sector and non-governmental groups. A full list of persons contacted is included in the Field Training Program Proposal: School of Public Health, University of Kinshasa, Zaire. (May 1986) (1.4 below). This work was done before the academic year was divided into blocs. Documents and memos marked with \*\* are included in your folders.

1.1. MEMONE.RAS, (May 19, 1986) Outline of field training component in the Project Paper and suggested modifications.

\*\*1.2. MEMTWO.RAS (May 21, revised May 27, 1986). Criteria for selection of sites for field training.

1.3. MEMTHREE.RAS (May 27, 1986). General comments and suggestions related to field training and the diffusion of information obtained during interviews about the school's activities.

1.4. FTMAY 86.RAS Field Training Program Proposal: School of Public Health, University of Kinshasa, Zaire. (May 1986)

This is the initial field training document. It has undergone several revisions but still needs substantial work. It outlines a training philosophy, a strategy and the details for ten visits of approximately one week each.

1.5. An Executive Summary of the above proposal for the Steering Committee and the Working Committee of the ESP.

#### 2.0. FIELD WORK PROGRAM, BLOC I. November 1986. (5 week consultancy).

The objective of this visit was to participate in the selection of field sites and the implementation of field work activities. Some time was also used to revise the original field training proposal and to adapt it to the curriculum divided into four blocs.

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Before I arrived, Dr. Makamba, Director of the Sante Four Tous program in Kinshasa, had begun preliminary planning of field work at Sante Four Tous zones. Together we worked out an orientation program and schedule of field work activities. In view of his other administrative duties, the amount of advance preparation was too brief. In general, the ESP did not have the staff (or, staff time) available to systematically implement the site selection, orientation and other pre-implementation academic and logistical tasks outlined in the preliminary Field Training Program Proposal: School of Public Health, University of Kinshasa, Zaire. (May, 1986). In spite of the difficulties, the results were encouraging and student feedback was helpful and positive.

Documents prepared for the field trip are listed below.

2.1. ORGAN.FTR. A memo to Dr. Mashala and Dr. Malamba outlining major questions dealing with administration, logistics, academic content and field supervision of students.

2.2. PPS.FTR. Formation Sur Le Terrain: Organisation, Administration et Programme Preliminaire Pour Le Premiere Sortie. Administrative decisions, schedule, the organization of student groups, field work activities and the presentation of results.

2.3. T1C1.FTR Formation sur le terrain: tches individuelles et collectifs. Preliminary schedule of tasks and activities provided to, and discussed with, students. Before leaving for the field they developed work plans and schedules.

2.4. FRT1C1.FTR. Formation Sur le Terrain: Presentation des Rapports Concernant Les Taches Individuelles et Collectives. Bloc 1: Sortie 1 (Novembre 1986). This document was given to students as a guide to the preparation of group and individual reports and, to help them organize presentations to the class.

Field work was conducted during the day at urban sites. Students returned home each night. They worked in small groups and carried out individual assignments. Dr. Makamba and I visited students in the field sites each day. The last part of thursday and all day friday was used for write-up, feedback and group presentations.

2.5. EVAL.FTR. Formation Sur le Terrain: Evaluation: Bloc 1. November 1986. A questionnaire administered to the class at the end of the feedback sessions. Results were tabulated and discussed.

2.6. VANGA2.FTR. Field Trip Report: Vanga (Nov. 19-22, 1986). A four day visit was made to Vanga, a health zone which is included in the SANRU program, to evaluate its suitability as a rural field training site. The approach used to

conduct this site evaluation is outlined in MEMTWO.RAS, Criteria for the Selection of sites for field training (May 27, 1986).

2.7. Some work was done to revise the Field Training Program Proposal and adapt it to the new bloc format and set of objectives for each bloc. The results of this were incorporated into the Revised Version: Field Training Program Proposal (November 1986) and covers field exercises through the first field trip for Bloc II (The Organization and Delivery of Health Services).

#### General comments

The lack of a full time field coordinator seriously limited the coordination, planning and implementation of the field training program. I expressed this concern to Drs. Bertrand and Kashala and they agreed to take action to correct this problem. They identified two candidates and requested I return to assist in the selection and orientation of a Field Training Coordinator. This was done during January and February 1987.

#### 3.0. THIRD CONSULTANT VISIT: RECRUITMENT AND ORIENTATION OF THE FIELD TRAINING COORDINATOR and THE PLANS FOR THE FIELD WORK PROGRAM, BLOCS II and III.

This was a two week assignment which focused on the selection and orientation of a Field Training Coordinator. Some time was also devoted to the development of a detailed field work plan for Bloc II and revisions in the Field Training Program Proposal. Revised version (February 1987).

Memoranda and documents prepared for this visit and Bloc II are listed below.

3.1. MEMOSOW.FEB. Memo to Drs. Kashala and Bertrand outlining my understanding of activities they wanted me to carry out during this visit.

3.2. CANDIDQ.FEB. An outline of information and questions to be used in the evaluation of candidates for the Field Training Coordinator (FTC) position. Reports were submitted on each candidate and Professor Lapika from the Faculty of Economics and Social Sciences was selected. He has been employed as the FTC on a part time basis.

\*3.3. FTCMEMO.RAS (Feb. 8, 1987). Suggested scope of work for the Field Training Coordinator. It covers: planning and administration, teaching and training, curriculum development and supplementary duties.

BEST  
AVAILABLE

AIDEVAL.FTR

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\*\*3.4. WORI.PLN.FEB (Feb. 9, 1987). IMPORTANT. A detailed memo outlining step by step procedures to guide the planning and implementation of field work activities for each bloc. It is based on information in the early planning documents and the experience acquired during the implementation of the field program during Bloc 1.

3.5. Memorandum on the suggested scope of work for the field training consultant (March 10, 1987). This was sent after the assignment was completed and sent to Kinshasa.

3.6. BLOC2.FEB. An outline of field work objectives and activities for Bloc II. This was developed in consultation with the Bloc II Coordinator, Dr. Adjou Moumi.

\*\*3.7. A revision of the Field Training Program Proposal: School of Public Health, University of Kinshasa, Zaire. February 1987. This incorporates changes in the objectives and activities for Blocs I-IV but is still far from a fully revised document. (COPIES IN FILE FOR CONSULTANTS IS A DRAFT VERSION).

3.8. LAPADMN.RAS (Feb. 12, 1987). Suggestions for administrative support needed for the new field training coordinator, Professeur Lapika.

3.9. Document produced by Professeur Lapika, Field Training Coordinator, for Bloc II activities.

3.10., 3.11. and 3.12. Documents produced by Professeur Lapika, Field Training Coordinator, for Bloc III activities.

4.0. BLOC IV (to be added) (Dr. Bertrand distributed some of these materials on Monday, June 29th.

#### (5) COMMENTS AND SUGGESTIONS

While there have been problems of planning, coordination and logistical support, the field training program has made progress towards the development of an effective program of field work. People in the Ministry of Health and other agencies have been involved in the development and implementation of the field program and actively support it. I believe most of the points outlined in the documents you have provide a foundation for the program.

The major problem is that of execution and the training of both faculty and field support staff to properly plan, integrate and coordinate the academic components with the field work activities. This is an innovative approach and it will take time and a great deal of trial and error to develop the content and

timing of field activities. In addition, a great deal of effort is needed to select and prepare field work sites so that the student's time can be used effectively and efficiently. To be successful, the program requires a high level of faculty participation in planning, implementation and evaluation.

#### (6) STUDENT COMMENTARY

Shortly after my arrival for this latest visit I met with two groups of students (eight students in all) to review the field work program. Below is a summary of their comments.

##### Program Administration

1. More advance preparation is needed. Often individuals at the zone and in the centers were not advised of our coming and the program's objectives.

2. There were delays in getting per diems to students and in making other arrangements in the rural zones.

3. A special budget should be prepared in advance to cover the extra costs of food, lodging and other expenses.

4. Better planning is needed to provide transportation for students in the field.

5. More attention should be given to site selection and the assessment of which topics can be usefully explored in each zone.

6. Students suggested that in view of the number of health centers involved in a single visit that it would be useful for the FTC to have more administrative support to adequately notify health personnel in the zones and prepare the logistical support.

7. They strongly recommended that the Field Training Coordinator spend more time participating in the academic program of the school.

8. They suggested that all professors, regardless of their field of expertise, learn more about the content and organization of health care systems and programs in Zaire.

9. Some suggested the participation of professors in the supervision of field exercises and feedback sessions. They see the present pattern as too fragmented.

## Organization

1. Better planning to integrate the content of the coursework with the content of the field exercises. This includes a selection of key concepts to be explored in the field setting and a definition of student tasks.

2. More classroom time needs to be devoted to the planning and discussion of the field exercises. Students wish to participate in this.

3. More time is required to teach students field work methods. They suggest more exercises on data collection techniques in the preparatory sessions.

4. They were critical of the short time they had to discuss the results of their work and the lack of feedback after several of the field visits.

5. More attention should be given to discussions with professors about their field reports. They want more commentary and critical feedback.

6. More time should be planned to allow them to observe and understand the organization and management of primary health care activities in the zones.

7. They agreed that overnight stays in the zones were useful and thought this should be done in the urban sites as well as in the rural ones. [Other students may not share this view, but their reasons for supporting this approach were good ones].

8. More variation in the length of stays. Some exercises only require short visits (e.g. those oriented to technical issues) while others would be more productive if they were in the field for ten to twelve days. A few suggested that some vacation time could be productively used in field work activities.

9. More flexibility in the selection of topics for field work. They suggest that they be allowed to spend part of the field time to investigate a problem that reflects their professional needs and/or interests.

10. The organization of feedback sessions and/or the sending of reports to the zones where they conduct field work. They feel an obligation to share their information and to give the health professional they interviewed an opportunity to critically comment on their results.

11. They believe the school has not taken advantage of the past experiences and knowledge of many of the students. Some have had extensive experience in a wide range of health care

activities and believe they could make substantive contributions to the academic and field programs. - They believe the faculty should learn more about their strong and weak points.

12. They recommend that faculty spend more time at the beginning of the year to learn more about the students and try to use them more actively in the academic activities.

13. They suggested that students be contacted before coming to the school and told to bring reports, health statistics and other information which they may wish to analyze at school.

#### Content

1. More academic preparation required on methods of field research. This included the collection of quantitative as well as qualitative data. Students strongly stated their need to develop skills in using these techniques and not just learning about what they are. They want to learn and practice how to use research methods. They suggested professors spend time demonstrating research methods in the class and, when possible, in the field.

2. More attention should be given to the collection and analysis of epidemiological data and environmental health issues.

3. More attention to the use of microcomputers in relationship to the analysis of field data and the production of reports. They would like to develop additional skills to use software programs to analyze epidemiological and financial data they collect in the field.

4. They cited the need to have more written information on topics related to the field work exercises. They referred to the methodological and well as the substantive issues.

5. Some recommended more laboratory related activities.

6. Additional exposure to special programs and industrial settings. Examples cited included factories, the water and sanitation department, vertically organized primary health care programs and health professional training institutions.

7. More time (in class or in field) to develop technical skills. Examples cited included environmental health and techniques of anthropometric measurement.

## RESEARCH ACTIVITIES

Research activities at the SPH are proceeding quite well, considering that the school is just completing its first academic year. The staff is engaged in numerous projects directly relevant to the needs of Zaire. These include "Technical Information on Population for the Private Sector" (TIPPS); "Primary Health Care Operations Research" (PRICOR-II); "Applied Diarrheal Disease Research" (ADDR). The staff is cooperating with other researchers in numerous AIDS-related projects. (See Attachment F-1).

The staff should be encouraged to continue research. Not only does it enhance their teaching and the status of the SPH, it provides a source of financing. The above cited studies are examples of such activities in which SPH staff serve as sub-contractors. Financing for a new study, totally under the auspices of the SPH, is expected momentarily. Other research is planned for the future. Continued high quality applied research is to be expected from this staff. Not only are the professionals research-oriented, an excellent group of local research associates has been created. With such assistance, it is possible for staff professionals to undertake applied research despite their heavy teaching loads.

Applied research can be of little value if its findings are not widely distributed. It is too early to assess this aspect of the SPH's activities. The staff is well aware of its professional responsibilities in this area.

Students at the SPH have not been actively involved in research undertaken to date. Their course requirements make such an activity inappropriate. However, in the Operational Research module, considerable attention is given to research training. The students complete a small project in their field studies. The ability to undertake individual research is of prime importance for the students who will eventually work in medical zones. They should become familiar with the many aspects of operational research. Perhaps the Operational Research module should be revamped. Switching it to Block 4 from Block 1 is an improvement. Rather than be limited to two weeks of intense training, the module could be spread throughout the entire Block. If this were followed with extended time in the field, student research capabilities would be improved. The graduates of the SPH will eventually form a nation-wide network with the responsibility for applied research on public health problems. It is thus important that they adequately prepared.

The computer training received by the students is excellent and suited to their future needs. Combined with extended training in research methodology, future students should become fairly competent to instigate basic applied research.

Recommendations:

1- The scheduling of the Operation Research module should be changed. Rather than being limited to 2 weeks of intensive training, the module should be lengthened somewhat and be taught throughout Block 4. The computer-related module, "Medical and Health Information" should be taught in a similar manner.

2- The middle-level staff of research associates should be expanded. By making use of the skills of this group, new Zairean instructors, returning from overseas training, members could become involved in research activities sooner and with less restraint.

3- The research capabilities of SPH graduates should be reinforced through continuing education short term courses and more field resources such as "lap top" micro computers.

4- First priority in any research undertaken by the SPH staff should be to research relevant to the needs of the people of Zaire.

5- The SPH should develop a data bank derived from their research projects. These could then be used to encourage further research by new staff members.

## ZSPH: RESEARCH PROJECTS UNDERWAY/PLANNED

- BREASTFEEDING & FERTILITY
- "TIPPS" - *Technical Information on Population for the Private Sector*
- "PRICOR II" - *Primary Health Care Operations Research (2nd phase)*
- "ADDR" - *Applied Diarrheal Diseases Res.*
- AIDS - Primarily "social epidemiology"
  - *Analysis of Projet SIDA sero-registers*
  - *TIPPS - AIDS module*
  - *Pilot study: "K-A-P" - AIDS patients*
  - *"K-A-P" - more AIDS patients*
  - *"K-A-P" - health personnel*
  - *"K-A-P" - university students (??)*
  - *["K-A-P" - Kinshasa residents (PSND)]*
  - *Mathematical modeling of AIDS - Zaire*
  - *[Economic impact of AIDS - REACH]*

## SUMMARY OF INDIVIDUAL RESEARCH PROJECTS

1. BREASTFEEDING AND FERTILITY - (\$6900)
  - *WHO multi-country study to evaluate impact of BF on fertility*
2. "TIPPS" (\$29,000)
  - *Examines health behavior of 1000+ employees/wives of UTEXAFRICA with a view toward integrating family planning into their health system*
  - *Field work completed 5/87, data entry underway --> 1st analyses ZSPH*
  - *Cost studies underway (w/ L.Emrich)*

SUMMARY OF INDIVIDUAL RESEARCH PROJECTS

3. PRICOR II (\$69,000)

- Examines knowledge/practices of all level health professionals plus mothers regarding EPI, ORT, malaria and growth monitoring in 4 health zones
- Data collection 2 zones completed, for last 2 zones by 8/87
- Data entry about to begin
- Preliminary analyses by ZSPH (SPSS)

4. ADDR (budget not yet established)

- Two-part study whose protocol is currently under review for funding (AID/W sponsored project)
- 1st: dev't. of computer programs to generate study protocols
- 2nd: compare studies undertaken using/not computer protocols (results, reliability, time..)

SUMMARY OF INDIVIDUAL RESEARCH PROJECTS

--- 5. AIDS RESEARCH ---

a. ANALYSIS OF SEROLOGY REGISTERS

- 1986: 8874 persons tested
  - 81% from Kinshasa
  - 90% reported ill
  - 86% with 2 or more major signs
  - 55% seropositive
  - Seropositivity patterns by age different for males/females
  - Relatively high predictive value positive in ages  $\geq 25$  for each major sign
  - Relatively high predictive value negative in ages 0-24yrs for each major sign
- Graphs/slides prepared for Pr. SIDA personnel for 6/87 int'l conference

## SUMMARY OF INDIVIDUAL RESEARCH PROJECTS

### --- 5. AIDS PROJECTS ---

#### b. "KAP" STUDY OF AIDS PATIENTS (n=150)

- Origin: 58% Kinshasa/BZ/Bandundu, 37% other (Zaire), 4% non-Zaire
- Mostly adults 20-40y, male=57%
- 67% primary/second. sch, 18% univ.
- 63% with previous gonorrhœa
- 88% had heard of AIDS, 8% "seropos"
- 19% had visited traditional healer
- Opinion on how one contracts AIDS:  
88% sex, 31% syringes, 28% transfus  
11% mosquitoes, 2-6% kissing/food.
- 91% would continue to visit family/  
friend with AIDS (4% "chase out")
- 88-87% would want self/family to  
know diagnosis of AIDS (none did)
- 35% knew someone who died from AIDS  
(mostly casual acquaintances, 8% fam)

## SUMMARY OF INDIVIDUAL RESEARCH PROJECTS

### --- 5. AIDS PROJECTS ---

#### c. TIPPS - AIDS module

- Examines sexual & health info. of  
interest to AIDS, correlates with  
HIV serology status
- Data collection completed, sera at  
Projet SIDA

#### d. CAP - AIDS CASES (larger study)

- Currently envisaged - to extend  
study to additional cases in diff't  
hospitals, possibly a case-control  
study to attribute causality to  
certain social aspects of AIDS

SUMMARY OF INDIVIDUAL RESEARCH PROJECTS

--- 5. AIDS PROJECTS ---

- e. KAP STUDY - HEALTH PERSONNEL
- Will examine knowledge, practices related to AIDS of 2000-3000 health practioners (all levels) as basis for planning educational intervent.
  - Base protocol, questionnaire dev'd.
  - Awaiting funds (req'd from AID/W)
  - Would like to commence work - 7/87
- f. KAP - UNIVERSITY STUDENTS
- Potential study, justification demographic group of importance both wrt AIDS within Zaire's future
- g. MATHEMATICAL MODEL OF AIDS
- Will allow projections of expected curve of AIDS epidemic under diff't assumptions re interventions

SUMMARY OF INDIVIDUAL RESEARCH PROJECTS

--- 5. AIDS PROJECTS ---

PROJECTS COORDINATED WITH ZSPH PROJECTS

- g. KAP - KINSHASA RESIDENTS
- PSND project, will evaluate contraceptive practices of 5000 males & females
  - AIDS-related questions coordinated with those from KAP-CASES & CAP-PERSONNEL studies
  - Field work June-Sept 1987
- h. ECONOMIC IMPACT OF AIDS
- REACH project, will evaluate econ. implications of AIDS in Zaire
  - Results can be integrated into mathematical model dev'd at ZSPH

G.1. Relationship with the School: the evolution of the school of public health from the department of public health in the medical school is expected by all those involved in the project at the University.

It is expected that this development will occur after the programs of education, service and research are well-established. The fact that the school will soon be housed in its own building separate from the medical school is a big step in the path of being independent.

A U.S. advisory committee has been established. Its meetings have been held at the annual American Public Health Association meeting. The committee is composed of representatives of the consortium of schools involved in the project. They include Tulane Morehouse Medical College, Univ. of Alabama, Harvard, Johns Hopkins, San Diego State Univ., Centers for Disease Control, and AID/W. The committee reviewed the progress of the project and offered a number of recommendations as well as arranged for several of the schools to send guest lecturers. (see attachment G.1.)

The School of Public Health is seen as the source for training its present field management staff and its future leadership. The school strongly supports the government's strategy of developing 300 rural health zones in order to reach the rural population. The ministry is represented in two ways, one by the Fifth direction responsible for Primary Health Care and by FONAMES which is responsible for coordinating donor support for the health sector.

The School of Public Health is very much involved in supporting other bilateral, regional and centrally funded A.I.D. projects. SANRU sends medicine chief de zone to the course and supports the field training sites, as does CEPLANUT. Pricorp and CEPANUT have developed research projects.

H.1. Physical Plant: The school was provided a unused building on the university campus as its center of operations. This shell was in very good condition but required renovation to make a combined classroom, office building, dormitory and laboratory facility. AA/Renovation of the physical plant is three quarters complete as of the first of JULY 1987. There remains the installation of electrical and plumbing equipment, cooking facilities, and various service connections such as water and electricity. Work appeared to be in progress on a daily basis during the evaluation. The quality of construction, fittings and finishing work is of very good quality and the end product should be a very satisfactory school facility. The building, located near the medical school, will contain dormitory space for twenty five students, a cafeteria, library, two laboratories for teaching and research, a meeting room, two large classrooms, a computer room, 10 offices for faculty and eight for administrative staff, two studios for visiting professors, and five offices for departmental chairmen. Supplementary classroom space is available in the nursing school part of the building. Parking and sports activities areas are being constructed on the grounds. The windows and doors have been reinforced for security purposes. The university will be responsible for the cleaning and maintenance of the building. It is possible that the building could be finished before the start of the new school year. h///// /With the availability of the supplemental class rooms in the nursing school, it is likely that sufficient space is available for the regular courses and the short courses. IT might have been better if a few smaller rooms had been provided for group work and small classes. The offices will likely meet the needs of both the administrative staff and faculty the time being. With the level of research activity and the use of part time faculty, the space will be occupied very quickly. There are now at least six full time faculty and two administrators requiring offices. IN addition to office space there does not appear to be adequate storage.

Recommendation:/ That the school of public health retain at least a portion of the office space it now occupies in the medical school for the overflow of its staff./H.2. At the present time the students are lodged in a hotel not too far from the campus. They receive two meals there and one luncheon meal on campus. They are transported once a day to and from the hotel to the campus. This creates a problem if the students wish to stay at school or need return to their lodgings during the day. There is very limited public transportation between the campus and the hotel. A microcomputer was placed at the hotel for student use, but h///// /there are no library facilities nor other learning resources. The student lodging cost is 2183,000 per month. This arrangement is fairly well tolerated by the students although all recognise the severe handicap that it imposes on their program. Comment .All parties recognise that this is a temporary situation imposed on the program by the delay in construction, and that little can be done to correct the matter./

## MISCELLANEOUS RECOMMENDATIONS

1- A number of modules have more than one instructor assigned to the course. It is recommended that the team of instructors take special care to assure that there are neither omissions or duplication of materials in this pedagogical procedure.

2- The overall program of modules and blocks is quite intense. It is recommended that the school year be extended from 10 to 11 months. In addition, the SPH might give consideration to following the schedule of the UNIKIN and offer courses on Saturday morning. For example, modules that are planned to extend the length of a Block might be offered on Saturday morning.

## APPENDIX

### "The Teaching of Demography"

The teaching of Demography or Population or Family Planning is sometimes viewed with a certain amount of distrust by some people, particularly in developing countries. This is unfortunate as Demography, like any other science, is a value-free discipline; Demography does deal with controversial issues, however.

Demographic facts are vital information of great utility to health workers everywhere. Without the denominators that generally come from population counts, it would be almost impossible to develop health indicator rates. Of course, Demography goes well beyond the gathering of numbers to be used in the construction of rates. The demographic measurements of fertility, migration and mortality in and of themselves are of considerable value to planners of all types. These rates, in turn, form the basis for the analysis of population change over time. The facts of population growth are mathematically indisputable; the interpretation of these facts can be controversial. Because of the prime importance of Demography for every sector of Public Health, the decision on the part of the School of Public Health to shift the module on "Demographic Techniques" from Block 4 to Block 1 is applauded.

A course in Demography should explain in detail how populations grow; it should explain to the student what is meant by population momentum. Insofar as possible, visual aids should be used to better explain these important demographic concepts. The relationship between population growth, age composition and health factors should be clearly indicated. However, it is up to the user of these data to determine their policy implications.

A similar situation exists insofar as family planning and contraceptive usage is concerned. All aspects of family planning should be discussed. The relationship between child spacing and infant mortality is an example of the importance of family planning for public health. All types of contraceptives should be discussed together with an objective analysis of the positive and negative factors associated with each such method. This allows the student to be better prepared to respond to questions about their utility when in the field.

Sexually transmitted diseases are an increasingly important cause of death in many countries. The impact of such deaths on population growth should be discussed as well as their effect on the age composition of a region.

Migration is generally not as important a component of growth as are fertility and mortality. Nevertheless, it does contribute to population decline in rural areas and rapid growth in cities. Again here, controversial issues may arise. The student should be aware of all facets of these issues.

Together, fertility (and the ways to limit or increase it); mortality (and the problems associated with certain death-dealing diseases); migration (and its impact on rural and urban areas) comprise the basic ingredients of Demography. The students should become familiar with every dimension of these three variables and know the various measurements used in each instance. Together these three variables are the building blocks of population growth. Again, the student should be aware of every aspect of growth and what it means for every dimension of society. Based on all this information, the student can then determine his or her attitude with reference to rapid growth, family planning, contraceptive use and so on.

Population policy is not Demography. It however is strongly affected by demographic findings and should be discussed at some length in any Demography course. Here again the student should be exposed to all variations of population policy. Particularly important is the evolution of population policy in the student's country.

The teaching of Demography and the discussion of family planning and contraceptive usage issues need not be a matter of concern for anyone if they are taught in an entirely objective manner and if the course covers every aspect of the various issues that have sometimes led to controversy. If the student has received a solid demographic base, he or she will better appreciate the issues and be in a better position to judge how to approach them.

### I.1. Project sustainability:

The training fees do not reflect the cost of training at this time. According to the university the tuition charge is 5000 per annum per student for citizens of the country and 25000/an for foreign students. There are about 100 foreign student each year throughout the university. The actual cost per student is z40-50,000 per student per mois or 500,000 per year (\$160) according to the vice rector. He also indicated that the university would begin to have great difficulties accepting foreign student levels in the twenty percent range.

The project staff estimated that the recurrent cost of the project, after A.I.D. support is terminated to be about \$183,000 per year, a figure significantly higher than the universities cost estimates. The cost of education is highly subsidized making comparisons to other third-country training risky, but \$4,000 in the same range as other similar africa Universities. The schools of the University of Kinshasa do not have individual budgets which report all cost in a single document, rather the salaries are handled centrally and support cost are allocated by school. Additionally, the cost to operate a faculty of Zairians will be much diference than that of one with numerous expatriate faculty and staff. The cost will be clearly much less than training for the MPH degree in the United States and should be comparable to fees(ave \$3500) charged for out of country students by university programs in many parts of Africa.(See twenty-nine institution pre- PID feasibility study on Health Leadership Training Project, June 1986-REDSO/WCA).

At present the fees are being paid by the USAID project SANRU for the medicine chief de zone(13/22), the MOH for 3/22, the source of support for the other students was not determined., but the fees should not prove a barrier to the course at this time. The ministrty has indicated that it plans to support as many of its staff as they can in the course. Other potential sources of student support include UNICEF, WHO, MISSION HOSPITALS, other bilateral missions, Private and voluntary

organizations and foundations interested in health and health management training. NHO has already signated its intent to support general students from French speaking countries. Foreign students sponsored by UN agencies and bilateral assistance agencies should be charged more than cost(z400,000-500,000.\$4000-410) plus perdiem. The idea of enrolling students from other countries is a well established practice throughout Africa, especially encouraged by the WHO Technical cooperation among developinnng countries (TC/DC) strategy. How much imapct the support of these students will have on covering the cost of the schools' operation is open to conjecture at this time, but assuming that no more than five of the projected thirty student slots are likely to be reserved for foreign nationals, it is doubtful if the financial impact will be very great.

The school of public health will be under great pressure from the frankophone countries to offer slots for their health service personell, since there is no other complete school of public health on the continent at this time. There are great advantages in opening the school to student from neighboring African states and those from overseas U.S. and Europe. The exchange of information,

ideas, and approaches to problem solving alone are worth the effort. Further it opens the door for collaborating on handling mutual public health problems and research efforts. The priority, however, must remain with the national interest in developing an effective public health management training capacity within Zaire.

4. In several discussions about the question of recognition of the school by some exterior group in order that foreign students will have a accredited Diploma or degree, the general thinking is that the Government of Zaire will surely embark on the national accreditation process in the very near future, and that any external accreditation is not likely to be acceptable. The self-study process used by U.S. Schools could be used to prepare for the Zairian process.

(see discussion attachment(I.1.)

The Tulane University School of Public Health has taken steps to establish an endowment fund for the U. of Kinshasa School of Public Health. The university president visited the project last year, and upon his return assigned a full time fund raiser to launch a campaign to raise about \$3,000,000 for the endowment, which could yield about \$183,000 per year for core support to the school. Assuming that the government of Zaire continues the salaries and that the rates of inflation and foreign exchange do not change more drastically than they have in recent years, this sum could support a major portion of the operating expense of the school as it is now constituted.

2. The long term prospects that the GOZ will continue funding for staff commodities, renovation and operating expenses seem very good at this time. There is a very high level of interest in the project both in the ministry of health and in the ministry of higher education. For the ministry of health, it is a major response to their strategy to extend primary health care services to the 300 rural health zones that are planned, as it trains the management for these zones.

The project staff has also adopted a strategy for making the school of public health self sustaining, by collaborating in research with other A.I.D. funded projects and providing data processing services to investigators from as far away as Yaounde', Cameroun. At this time the school is involved in 4 research studies and is processing data for 3 studies. They are conducting a study for the World Health Organization. (see section F.) It is too soon to say how much money the research activities will contribute to the support of the school overall, but the yield should be very significant.

Recommendations: Concerning sustainability, the project should continue to encourage the effort to obtain financial self sufficiency through all the means necessary particularly the research and short term training and the endowment.

Recommendations: School of Public Health

1. That the AID Health Office and the School of Public Health (SPH) arrange a joint meeting of the AID/Zaire service and research projects with the SPH to develop a mechanism by which the ideas and concerns of these units might be more effectively expressed for the benefit of the projects.
2. The project will have to make a revised AID and counter part fund budget to account for the inflation of the Zairian currency, the fall of the U.S. dollar against European currency and the rise in the cost of the building renovation.
3. The changes made in the original training plan should be endorsed and the scheduled withdrawal of foreign advisers should be reviewed carefully in the light of these changes. There should be at least two advisers maintained through the 1991-92 academic year, particularly to provide supervision of Ph.D. candidates.
4. Provision should be made for training abroad of Zairean professors of health administration and of environmental health, particularly in regard to water, sewage and food protection.
5. The scheduling of the Operation Research module should be changed. Rather than being limited to 2 weeks of intensive training, the module should be lengthened somewhat and be taught throughout Block 4. The computer-related module, "Medical and Health Information" should be taught in a similar manner.
6. The middle-level staff of research associates should be expanded. By making use of the skills of this group, new Zairean instructors, returning from overseas training, members could become involved in research activities sooner and with less restraint.
7. The research capabilities of SPH graduates should be reinforced through continuing education short term courses and more field resources such as "lap top" micro computers.
8. The SPH should develop a data bank derived from their research projects. There could then be used to encourage further research by new staff members.
9. Obtain the management case studies and epidemiology training material development by SHDS project (698-0298) from AFRO and AFR/TR/HPN.
10. We recommend that the SPH look into the possibility of developing continuing education short courses for its own graduates.

11. The module on Demographic Techniques should be expanded to 60 hours or two weeks. The additional time should be allocated as follows:

a-More detailed discussion of demographic techniques, particularly in mortality and morbidity.

b-More discussion of the use of demographic data in vital statistics and in the estimation of local area population.

c-More discussion of measures of contraceptive acceptance and the arguments for and against their use.

d-Greater utilization of computer software such as RAPID to develop better understanding of population issues.

e-More discussion of population policies including those of the government of Zaire. (See Appendix for a more detailed discussion.)

12. New demographic training materials should be developed particularly suitable to the needs of Zaire students. These should include software that illustrates the use of various techniques. Such materials could then be used in the field by graduates of the program.

13. Most SANRU health zone chiefs are already running small family planning program. Perform an analysis of their training needs and add these family planning subjects such as I.E.C. to the curriculum.

14. Explore with WHO the designation of UNIKIN as the Zaire depository for all WHO publications. Seek courtesy subscriptions to PAHO/WHO and Canadian public health journals.

15. Seek alternative resources for building and maintaining library such as UN agencies, Private foundations (Ford, Carnegie and Rockefeller), medical societies and public health associations.

16. Explore the possibility of establishing a computer linkage with health library networks.  
(medline etc.)

17. That the objective of field training be redefined to reflect the priority need for managers of the rural and urban health zones.

that the rural training period(s) be of sufficient length to allow the learning objectives to be achieved. A single six week training program might be scheduled as follows; week 1. survey the epidemiology and demography of villages using micro computers. Meet with community organization. Week 2. Analyse data to establish calculated community needs. Discuss with community the data based need as compared to their felt needs to develop a set of priorities for action. Plan with faculty for public health intervention in village using village resource (including SANRU, CCCD or other projects), including monitoring and evaluation.

Week 3&4&5 Manage the implementation of public health intervention(s) by student and community using management improvement lessons from the class room.

Week 6. Evaluation of the project from public and management perspective. Make final report using data collected on health status (effort like vaccine coverage and number of immunizations given) and management information (cost benefit analysis, cost recovery, etc.)

18. Efforts should be made to improve the integration of the field training with the general curriculum. This may necessitate a reformulation of the field training philosophy.

19. A committee should be established to determine the topics to be studied in the field. In addition to the faculty, this committee should include the site coordinators and the coordinators of the medical zones as well as representatives of related projects such as SANRU. At the end of the year, a large seminar should be organized. This would be dedicated to the synthesis of the total experience. In this seminar, all site coordinators, SPH professors and students would take part with a view to deriving new strategies that would contribute to the improvement of the field training.

a-Survey the epidemiology and demography of villages using micro computers. Meet with community organizations.

b-Analyze data to establish calculated community needs. Discuss with community the data based need as compared to their field needs to develop a set of priorities for action. Plan with faculty for public health intervention in village using village resources (for example SANRU, CCCD or other projects) including monitoring and evaluation.

c-Manage the implementation of public health intervention(s) by students and community using management improvement lessons from the classroom.

d-Evaluation of the project from public and management perspective. Make final report using data collected on health status (e.g. effort like vaccine coverage and number of immunizations given) and management information (e.g. cost benefit analysis, cost recovery etc.)

20. Additional vehicles and the construction of a Guest House, possibly at Sona-ABata, would greatly reduce the time spent in driving to and between sites. Research Center.

21. Study tour to see other field training for SPH.

Document 1001c

## LISTE DES DOCUMENTS INCLUS.

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1. INFORMATION GENERALE SUR LE P.E.S.P. ( 3 pages ) ;
2. PROCES-VERBAL DE LA PREMIERE REUNION DU COMITE TECHNIQUE DU P.E.S.P. ( 9 pages ) ;
3. PROCES-VERBAL DE LA DEUXIEME REUNION DU COMITE TECHNIQUE ( 14 pages ) ;
4. OBJECTIFS EDUCATIONNELS DU PROGRAMME ACADEMIQUE DE L'E.S.P. ( 3 pages ) ;
5. RAISONS DE CREATION D'UNE ECOLE DE SANTE PUBLIQUE ( 7 pages ) ;
6. ECOLE DE SANTE PUBLIQUE AU SEIN DE L'UNIKIN (ANNEE 1 ) ( 7 pages ) ;
7. ADMINISTRATION ET GESTION DES SERVICES DE SANTE ( 7 pages ) ;
8. PROCES-VERBAL DE LA REUNION ACADEMIQUE DE L'E.S.P. ( 16-3-87 ) ( 3 pages ) ;
9. MEMO ( 4 pages ) ;
10. PROPOSITION DE PROGRAMME POUR LES AFFAIRES ACADEMIQUES ( 2 pages ) ;
11. PROPOSITION DE RESTRUCTURATION DES BLOCS ( 4 pages ) ;
12. QUELQUES REMARQUES DE Dr. GUILBERT ( 3 pages ) ;
13. COMMENT TRADUIRE DANS LA PRATIQUE LES RECOMMANDATIONS DE LA MISSION GUILBERT ( 3 pages ) ;
14. STRUCTURE DES BLOCS ANNEE 1987 - 1988 ( 6 pages ) ;
15. REUNION PEDAGOGIQUE DU 07 MAI 1987 ( 2 pages ) ;
16. MEMO ( 2 pages ) ;
17. REUNION DU COMITE PEDAGOGIQUE ELARGI ( 28 MAI 1987 ) ( 12 pages ) ;
18. EVALUATION ( 2 pages ) ;
19. TABLEAU RECAPITULATIF BLOC ( 1 page ).
20. REUNION DE COMITE PEDAGOGIQUE ELARGI ( 28 MAI 1987 ) ( 15 pages ) ;
21. REUNION DU COMITE PEDAGOGIQUE ( 29 AVRIL 1987 ) ( 2 pages ) ;
22. ECOLE DE SANTE AU SEIN DE L'UNIKIN 2eme partie ( 4 pages ) ;
23. SYNTHESE DES DECISIONS DE LA 3 eme REUNION DU COMITE TECHNIQUE DU 12 FEVRIER 1987 ( 2 pages ) .

BREAKDOWN OF FULL TIME PERSONNEL AT PESP

DIRECTOR: Dr. KASHALA TUMBA DIONG

CO-DIRECTOR: Dr. WILLIAM E. BERTRAND

ADMINISTRATIVE ASSISTANT: MELINA S. HILL

PURCHASING AGENT & CASHIER: MBOMBO MUTEMBA

ACADEMIC AFFAIRS:

COORDINATOR: Dr. ADJOU-MOUMOUNI

FULL-TIME

PROFESSORS: Dr. KASHALA TUMBA DIONG  
Dr. WILLIAM E. BERTRAND  
Dr. ADJOU-MOUMOUNI  
Dr. WALTER MASON (ALSO IN CHARGE OF THE  
CONSTRUCTION PROJECT)  
Dr. MELINDA MOORE (ALSO IN CHARGE OF ALL RESEARCH  
PROJECTS)

PART-TIME PROFESSORS WHO HAVE TAUGHT AT ESP /  
RESIDENT IN ZAIRE (\*) / RESIDENT OUTSIDE ZAIRE (+)

TOTAL: 25

1. Dr. NKOKO BAGALWA (\*)
2. Dr. IVAN BEGHIN (+)
3. Dr. AUVERT-BERTRAND (+)
4. Dr. JANE BERTRAND (\*)
5. Dr. DELACOLLETTE (\*)
6. Dr. XAVIER EMMANUELLE (+)
7. Dr. GAMBOA (\*)
8. Dr. GERNIERS (\*)
9. M. GUIDO GROENEN (\*)
10. Dr. KALULA KALAMBAY (\*)
11. Dr. SANGWA KAHZOZI (\*)
12. Dr. KIDINDA (\*)
13. Prof. LAPIKA DIMOMFU (\*)
14. Dr. LUABEYA MESU'A KABWA (\*)
15. Dr. MIRIAM MALENGREAU (\*)
16. Dr. MAMPUNZA MA MIEZI (\*)
17. M. L. MARTIN (\*)
18. Dr. MATONDO MASSAMBA (\*)
19. Dr. MULUMBA (\*)
20. Dr. MUSINDE (\*)

21. Prof. NAGAHEUDI (\*)
22. Dr. NGOY (\*)
23. Dr. NKAKUDULU (\*)
24. Dr. RON SCHWARZ (+)
25. M. DAVE SHAPIRO (+)
26. Prof. TITE (\*)

CONSULTANTS WHO HAVE VISITED ESP/GENERAL ORGANISATION (\*)/  
ACADEMIC AFFAIRES (+) / SHORT TERM TRAINING (!)

TOTAL : 9

1. Dr. J.-J. GUILBERT (\*)
2. Dr. ALBERT HENN (\*)
3. M. JOHN IZARD (!)(\*)
4. M. FELIX LEE (!)
5. M. TIM MANCHESTER (!)
6. Dr. ALPHONSO MEJIA (\*)
7. M. JIM SETZER (!)
8. Dr. MEL THORNE (!)
9. Dr. SAM WISHIK (\*)

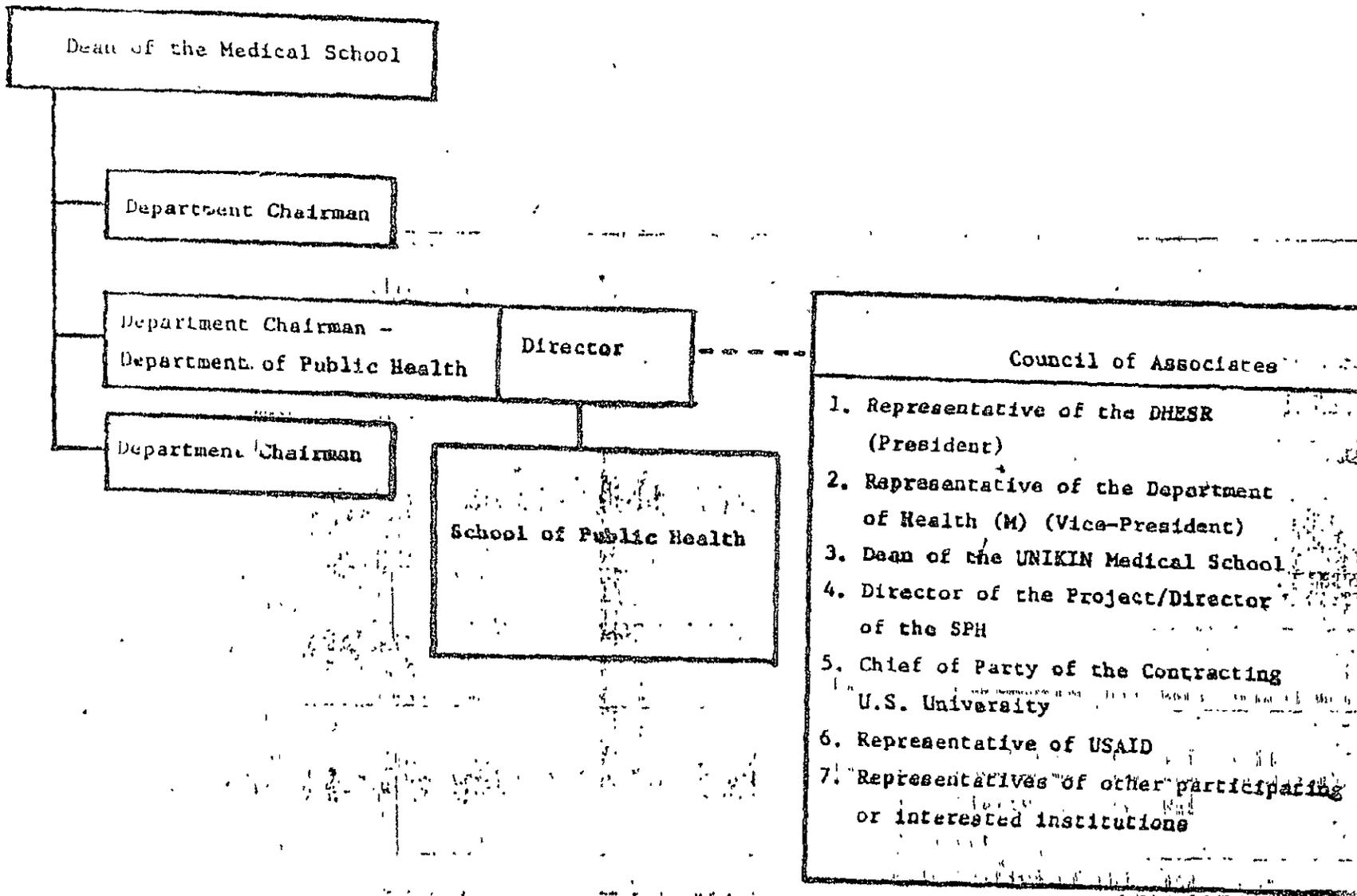
CONSULTANTS FOR RESEARCH PROJECTS

TOTAL : 5

1. Mme. NEEN ALRUTZ
2. Dr. JAMES FARROW
3. Dr. GERALD KEUSCH
4. Dr. DAVID NICHOLAS
5. Mme. JEAN SHAIKH

Organization Chart of the Council of Associates

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6.1  
U.S. Technical Advisory Committee  
for Zaire School of Public Health Project

Oct. 2, 1986

Riviera Hotel  
Las Vegas, Nevada

Agenda

Welcome and  
Introductions

Dr. James E. Banta, Tulane

Presentation  
of Year One  
Progress Report

Drs. William E. Bertrand  
and Kashala Tumba-Diong

Questions & Discussion

Participants from Consortium  
Institutions

Participants

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Summary of Report by Drs. Kashala and Bertrand to the Members of the Consortium for the Zaire School of Public Health.

Major Activities in Year One:

1. Development of an administrative structure within the University of Kinshasa took approximately four months. This process included setting up a bookkeeping and project management system and hiring appropriate administrative personnel. The activities were completed with the assistance of one U.S. consultant and the AID auditors from the Embassy in Kinshasa.

2. The contract for the building renovations is approximately eight months behind schedule. This was due to the gross under-estimate of the cost of those renovations as originally outlined. AID/Kinshasa has been very helpful and supportive of the continued efforts to complete this task successfully.

3. Courses will begin on schedule this fall as planned using the facilities of the Medical School and the Polyclinic. Twenty-five students will be in the first class. The laboratories and library are still somewhat limited.

4. The field training component continues to be a very important part of the overall program. CCCD, CDC, MCH, and WHO will be assisting with field sites and training so that 25% of each student's program will be in the field.

5. The academic programs will consist of four blocks each of two and one half months in duration for a total of 695 contact hours. The blocks will be in Epi/Biostat/OR/Medinfo, Health Management/Policy, MCH/Community Health, and Health/Society.

6. Future faculty are currently in training programs in Brussels, UCLA, Tulane, UBA and San Diego.

7. Students for the first class have been selected by a Local Advisory Committee made up of membership from WHO, Faculty of Medicine, Ministry of Health, various religious groups, and Drs. Bertrand and Kashala. Each student has four to five years experience in the field and is directly responsible for the primary health care of a region in Zaire.

8. The project has enjoyed very good support from the Ministries of Health and Higher Education in Zaire.

9. The U.S. Advisory Committee will be receiving copies of the annual report of the School of Public Health. (A copy of the Draft Annual Report was distributed at this meeting. In addition several copies of the complete Appendices were available for review.)

Questions and Discussion by the Members of the Consortium for the Zaire School of Public Health.

1. Dr. Mel Thorne reported on the first short course taught this summer at the School of Public Health and presented the materials produced during that course. He stressed the importance of doing each course in such a manner that a document is produced after the course which can form the basis of a textbook for future courses.

REINVENT THE WHEEL?

2. Dr. Bertrand requested each consortium member to consider reviewing the various course curriculums as they become available. The School would like responsible persons to critique each for content and applicability. The project could pay consultants from each university if this is necessary. Dr. Bertrand indicated that each member of the consortium would be sent copies of the curriculum and course outline for the first block. He then asked if each member would identify someone to review these documents for the school. He estimated that three to four days of work would be required.

3. What about examinations? Each professor sets the standards for performance in his/her course. The School is heading towards a behavioral approach in evaluating performance.

7

4. Could the accrediting body for the U.S. schools of public health be asked to do an accreditation of the Zaire School of Public Health? This is a suggestion which has merit since then credits would be transferable and masters degrees would be recognized when higher degrees were sought at U.S. institutions. Dr. James Banta agreed to investigate this possibility.

5. WHO is changing the training policy. Now local sites for training will be given priority; followed by regional sites; and lastly, international sites would be considered.

6. The Zaire School of Public Health could be considered as a potential field laboratory for U.S. researchers looking for field sites.

A BIT EARLY?

7. How important is the role of the microcomputers in the Zaire School of Public Health? There are 30 contact hours in computer training which focus primarily on the management of information using the microcomputer. The laboratory has eight to ten IBM compatible microcomputer systems. The students will be given the basic tools of data based management and statistical and epidemiological packages.

COMPUTERS AVAILABLE IN MOH?

8. Are students required to take English training? No. The level of English is currently sufficient to read the necessary journals. It is more important to prepare and translate materials into French.

9. Could the Zaire School of Public Health be designated an official NIH review board in Africa? The school is currently following the WHO guidelines for human subjects review. Dr. Bertrand and Dr. Kashala would welcome information on the CDC/NIH guidelines for such a review board.

EARLY

10. How are the four blocks integrated? The four blocks are integrated by the field experiences and the individual student projects. There will probably be local Zairian preceptors named for each student. Students going to the U.S. for training at the doctorate level will have U.S. preceptors.

11. What is the possibility of using satellites for courses? The problems are not technical; they are political. It is an idea to consider in the future.

12. How is Antwerp involved? They are members of the consortium and are going to supply faculty and consultants.

13. How is the private sector involved? Blocked currency not a big issue in Zaire. A project has been signed with TIPPS for work with the family planning industry in Zaire.

14. Another important aspect of the project is the planning for local medical services. The school is currently using the WHO country planning approach.

15. Representatives from AID expressed great pleasure at the early attention given to the administrative set up of the project.

16. Consortium members expressed an interest in knowing in advance what sorts of short term consultants would be needed, and when, so that they might assist in suggesting candidates.

D R A F T

ANNUAL REPORT 1985-86

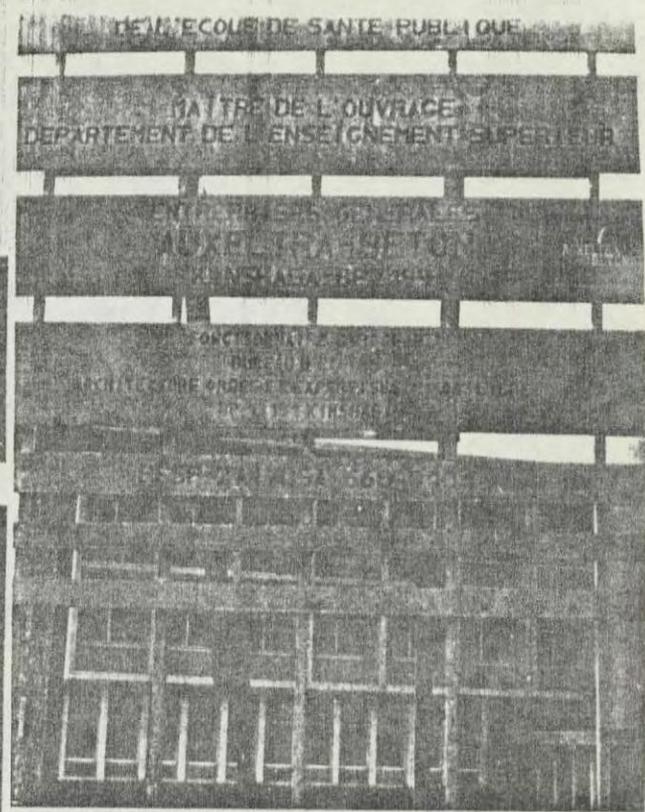
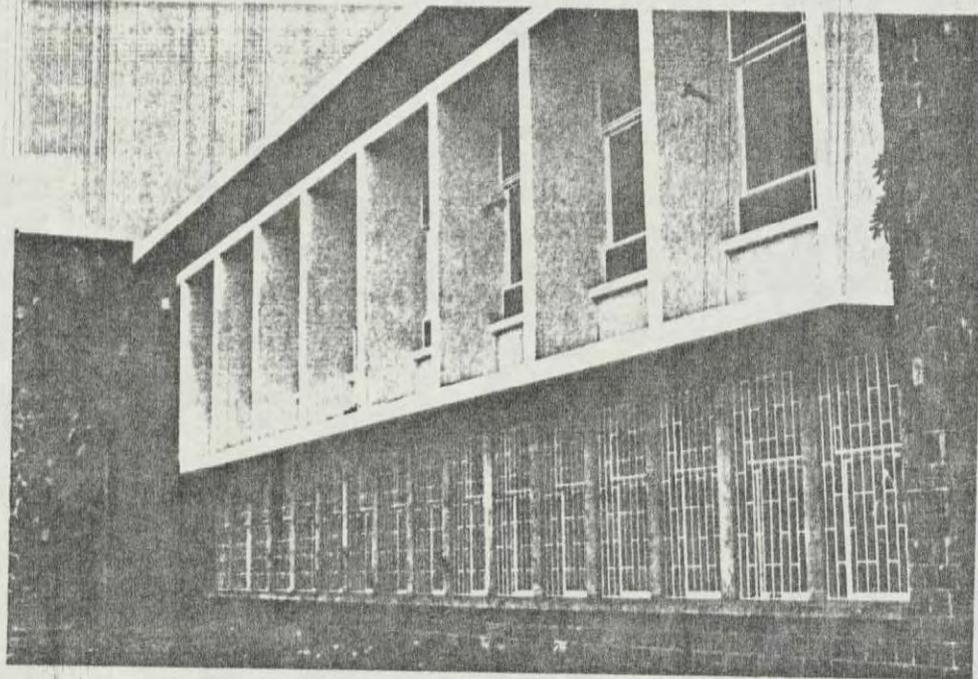
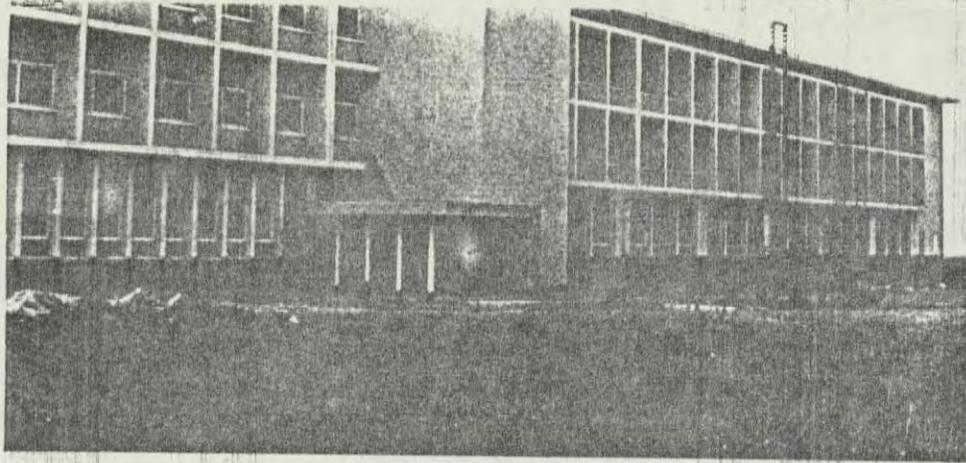
ANNUAL REPORT 1985-86

ZAIRE SCHOOL OF PUBLIC HEALTH PROJECT

TULANE UNIVERSITY CONTRACT TEAM

WILLIAM E. BERTRAND, PH.D.  
KASHALA TUMBA DIONG, PH.D.

D R A F T  
SEPTEMBER 30, 1986



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## Introduction

This document is intended to report on the progress made during the first year of contract activity involving the Tulane University contract team and its component consortium members. As a starting point this document refers to the three year plan developed in early 1986 and summarizes activity in each segment of this plan. The Three Year Plan includes a restatement of project purpose and goals as well as 13 major activities which will provide the general structure for this report. While the primary goal of developing a public health school within the University of Kinshasa has not changed from the initial plan, the following sub-activities have been highlighted for planning purposes.

1. Formation of Advisory Council.
2. Establishment of a Project Management Coordinating Unit.
3. Selection of long term trainees.
4. Building pre-plan and reconstruction.
5. Development of three year plan.
6. Design of academic program.
7. Development of the library plan.
8. Development a Research Plan.
9. Selection of Field Sites.
10. Teaching of microcomputer course (stage).
11. Development of laboratory plan.
12. Selection of Students.
13. Development of computer facility.

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15. Opening of first academic year

Since a number of activities of interest to the development of the school have been added to the original plan these will be incorporated into the narrative as indicated. Supporting material will be included as appendices where warranted. Although the contract with the Tulane consortium was signed in early October of 1985 this initial report will consider briefly project activity before the technical assistance contract was signed and report on activities up to the beginning of the academic year on October 15, 1986. The reporting cycle of the school will be roughly concurrent with the academic year of Oct. 15 to July 31st of each year.

First Steps in School Formation

Developing the administrative and control structure of the new school is a needed first step and one that involves each future element. A sound administrative base was needed in order to provide appropriate information to AID and the University of Kinshasa as well as to facilitate future developments within the school's activities. The project co-ordinating unit was first established in March of 1986 as the committee with the mandate for directing the school. As programmed in the Project Paper the unit was composed of the Director and Co-director of the project and the Zairian and Tulane contract Administrative assistants.

Prior to the formation of the unit decisions had been taken by the Director and Co-director and the Zairian Administrative Assistant. During the period prior to the signing of the Tulane contract administration of the school was under the control of

the Cairian staff under AID direct-monitoring.

Appendix A illustrates the minutes of the management committee, (Comite de Gestion) which chronicles important decisions taken during the first year. The group meets weekly with a careful record of all decisions kept for the disposition of project monitors and evaluators.

The weakest point of any beginning administrative system is its financial records. Irregularities which resulted in the dismissal of two Cairian administrative assistants sparked a review of all financial systems with the assistance of AID comptroller representatives. A consultant from the Tulane staff with experience in management systems was recruited to assist in the development of record keeping systems and to aid in the installation of a preliminary system. Appendix B includes the final report of the consultant complete with forms and organigrams illustrative of the current project management operation. By reviewing the minutes of project meetings and Mr. Izard's report, a complete picture of formal administrative arrangements for the school can be developed. Appendix B also includes a complete listing of current project employees at all different levels.

The final administrative points involve the establishment of the project advisory committees. The first project advisory committee is located in the United States and is formed of senior representatives of consortium-member schools. It is intended as a quality control mechanism in order to assure that project development represents the current and best thinking in

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graduate public health education. Appendix C

indicates the names and positions of the current members of the committee which held its formative meeting at the APHA meetings in Washington D.C. in 1985. It is expected that the second meeting of the group will take place at the APHA meetings in Las Vegas on Oct. 20, 1986. As the program of the school becomes more defined we expect to have more communication with consortium members on all subjects regarding school direction.

The final major administrative point involves the formation of the School Technical Advisory committee. This committee was intended to serve the function within Zaire of guiding the School through its formative period while assuring that its objectives and functions are consistent with the practical problems in Public Health in Zaire. The first meeting of this group was held on July 29, 1986 and included representatives of different organizations active in Public Health in Zaire.

A progress report was presented as well as the initial drafts of the academic calendar and related schedules. The committee appointed sub-groups responsible for establishing training objectives for each of the blocs and have begun to develop these written objectives. Full details of the first meeting complete with names and organizations represented are included in Appendix D of this report. After careful investigation of the legal code of Zaire and discussions with responsible University and Government officials, the first Human Subjects committee in Zaire was established as a function of the School of Public Health Technical Advisory committee. With representatives of major religious and scientific organizations.

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the University, the community and the government, this group will follow the WHO guidelines for same and review School proposals with regards to potential problems with research on human subjects. The probability of scientific research directed by and through the Zaire School of Public Health is an important side effect of the School formation since it opens the way to possible self financing mechanisms through research contracts as well as the normal function of research within the academic context. Details of this process are available in appendix E.

#### Building Reconstruction

The one major area of Project development that is delayed is that of the reconstruction of the physical space for the school. A number of problems arose in each of the preliminary steps of contract design, letting and signature with the result that a final contract was not signed until early August 1986. This represented a delay of almost two full years in original project plans. As a consequence of this delay and poor original estimates the cost of the programmed renovations went from an estimated 12,000,000 Zairas to 63,000,000 Zairas. At current exchange rates that is equivalent to about 1.07 million dollars (\$=55). This had further implications for the budget which had been calculated at a figure well below that noted. The AID staff reacted admirably in working out a solution to the problem whereby funds were added to this years budget and the payments to the contracting firm were spread out so that a significant proportion would land in year two allowing access to a new fiscal year's counterpart fund budget.

With that solution in mind the construction firm Auxeltra-Beton was chosen and work started on the building. An elapsed time of 210 working days or approximately eight months is programmed. We expect to move in to the new building in or about May of 1987.

Delay in the construction has created other difficulties due to lack of facilities. This includes problems in developing laboratory and library space, the need to renovate certain existing Medical School space for the first year of school operations, and difficulties and extra cost attached to the lodging of the first year's students. While solutions to all of these problems have not been completely worked out it was felt that the first academic year should start on schedule. Using existing resources the school is programmed to open on October 15, 1986 as per the revised work plan.

Appendix E details the state of the current building, the core information regarding the contract and some photographs of the current physical space and the building to be renovated.

#### Library, Laboratory and Microcomputer Laboratory

The problems in the construction of a permanent facility for the School of Public Health are of course reflected in those parts of the facility required for resources needed in the teaching program. Temporary solutions have been found for each of the facilities considered important for teaching as follows:

#### Library

An office dedicated to library activities has been set aside in current space allotted to the project within the Medical School Buildings. In an attempt to apply appropriate technology while at the same time building a

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quality research and teaching reference library in a small space we have moved in two directions. We signed a contract with a Belgian library supply company whereby all french language books in public health and related fields were purchased as listed in the French equivalent of Books In Print. Secondly, important reference books were also purchased through normal channels in the United States. This core of materials will provide the base for the Library collection.

In the area of scientific periodicals it is difficult to be comprehensive yet stay within any kind of budget. The Rockefeller foundation several years ago in recognition of this problem began to develop a microfiche based periodicals library which was designed to cover 80% of the literature cited in contemporary medical and health literature. This library and its attendant equipment has been purchased for immediate delivery and will be available to the first year's professors and classes. In recognition of the problems associated with accessing all of the above mentioned materials in french we have also undertaken studies related to providing a micro-computer desk top publishing capability for the School. We foresee the need to produce a number of documents for coursework and microcomputer technology will allow us to do this in a cost effecient manner. Appendix F includes references to all purchases made in the first year regarding the library activity and provides more information regarding its future management.

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## Microcomputer Laboratory

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With its ability to handle quantities of information and data the microcomputer is fast becoming one of the technical supports of public health research and education. In order to use this information processing power both for administrative functions related to school activities and for the potential teaching and research work in the establishment of a microcomputer laboratory was an important first step. Accordingly, a temporary facility has been established with a full compliment of hardware and software within the current facilities. It is hoped that this facility will also be the basis for income generation as we move into later stages of school development.

Appendix 6 gives a more complete list of equipment available to students and researchers in the school as well as a list of organizations that have used the School facilities during the first 12 months of operation.

## Public Health Laboratory

This has been one of the problem areas due to the difficulties in acquiring equipment without the physical space ready for same. For the time being facilities currently available within the medical school will be utilized. The students will also profit from the presence and state of the art equipment of CDC personnel researching AIDS and other infectious diseases. Dr. Walter Mason, one of our long term advisors, will take over the development of this laboratory with the first courses requiring its use programmed for bloc' three of the first year.

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Faculty Development

The major resource of a University is its faculty. In accordance with this fact, advanced public health education has been programmed for junior members of the current staff and other University personnel who will eventually become full-time staff members. A total of ten such individuals to receive a mix of Masters and Doctoral level training are budgeted for. we have advanced the departure for training schedule somewhat to insure the return of these highly qualified staff members within the shortest possible delay. six trainees have already departed. Their names and training institutions are as follows.

- |                        |                               |         |
|------------------------|-------------------------------|---------|
| 1. Dr. Mapatano Ali    | Masters Degree: Nutrition     | UCLA    |
| 2. Dr. Thefu Kitoto    | Masters Degree: Tropical Med. | Tulane  |
| 3. Dr. Lusamba Dilassa | Doctoral: Epid.               | Tulane  |
| 4. Dr. Kiyombo Mbela   | Masters: Occ. Health          | Alabama |
| 5. Dr. Esakwa Botuli   | Masters Degree (Occ. Med.)    | Louvain |
| 6. Dr. Ngo Bebe        | Doctoral: Adm/PHC             | ULB     |

As part of the first years activities two short training courses were programmed as first runs through the system and to begin the short term training function envisioned for the school. These two courses were a 6 week course in microcomputer use in health systems and a two week course in methodologies for Primary Health Care Management. A total of 28 persons participated in the course activities with the result that both courses were

completes the first stage of the course. In addition, the  
short course certificate is a valuable asset provided a useful  
tool for the individual concerned. The course of the same  
title being provided by the Government of the Province of Ontario, the  
government of the Province of Ontario, the Government of the Province of  
more complete information regarding the course should be obtained from the

Course Objectives

The course is designed to provide the student with a sound  
School of Business Administration, and to provide the student with  
an opportunity to gain a better understanding of the business  
is a requirement for the student to be able to understand the  
understanding of the business environment, and to be able to  
feature of the business environment, and to be able to  
definitely to be able to understand the business environment, and to  
be able to understand the business environment, and to be able to  
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And the course is designed to provide the student with a sound  
judged to be a valuable asset provided a useful tool for the  
program of the business environment, and to be able to  
come subject to be able to understand the business environment, and to be able to  
constrains to be able to understand the business environment, and to be able to  
years to be able to understand the business environment, and to be able to  
class size of the business environment, and to be able to  
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plan in French by Dr. Ngwete, with the assistance of Dr. Wishik. The supporting documents and progression of activities in this particular case are available in Appendix \_\_\_\_\_ for closer study.

Because the field study component of the program is of such importance and represents an innovative approach to graduate public health training, considerable effort has been invested in planning the activity. As a first step an outside consultant, Dr. Ronald Schwarz, a Public Health/Educator trained in Anthropology, was brought in to do the ground work and offer an initial design of how a field training program would work. His report is attached in appendix I. The selection of field training areas has been partly undertaken and will be continued during the first year as more is understood about how the training will fit into the planned course work. By definition one of the sites utilized will be the Polyclinique at the University which is under the direction of the Project. This is a functioning primary health care facility serving the population in the Mount Amba area which includes an urban and semi-rural residential pattern. It will be an important part of several components of our educational activity until the completion of the building for the new school. Since we will actually be holding classes in the physical space of the polyclinique.

One other urban and one or two rural zones within a two hour drive from Kinshasa will be utilized during the first year until a protocol we feel is appropriate is established.

#### Research Program

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