

PROJECT APPRAISAL REPORT (PAR)

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1. PROJECT NO. PIO/T 931-11-570-101	2. PAR FOR PERIOD: 6/30/73 to 10/25/74	3. COUNTRY USA	4. PAR SERIAL NO.
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5. PROJECT TITLE
 Institutional Development in Health and Population

6. PROJECT DURATION: Began FY 7/1/68 End: FY 2/28/75	7. DATE LATEST PROP 75	8. DATE LATEST PIP	9. DATE PRIOR PAR Jan. 8, 1974
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10. U.S. FUNDING	a. Cumulative Obligation Thru Prior FY: \$1,800,000	b. Current FY Estimated Budget: \$150,000 (8 mos.)	c. Estimated Budget to completion After Current FY: \$ 520,000
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11. KEY ACTION AGENTS (Contractor, Participating Agency or Voluntary Agency)

a. NAME Johns Hopkins University, School of Public Health Department of International Health	b. CONTRACT, PASA OR VOL. AG. NO. csd-1939
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I. NEW ACTIONS PROPOSED AND REQUESTED AS A RESULT OF THIS EVALUATION

A. ACTION (X)			B. LIST OF ACTIONS	C. PROPOSED ACTION COMPLETION DATE
USAID	AID/W	HOST		
	TA/H		<p>It is recommended that the current 211(d) Institutional Development Grant (csd 1939) be extended in the utilization mode for a period of two years subject to the following qualifications:</p> <ol style="list-style-type: none"> The university should continue to seek other external sources of funding for its international program in DIH with the aims of reducing its unhealthy dependence on AID for so large a proportion of its support. The principal activity financed by the grant should focus on the areas of AID priority, i.e., health planning and low cost delivery systems. These priorities should be reflected in DIH training and curriculum, research strategy, and in faculty competence to give technical advisory service to LDCs. DIH should develop jointly with TA/H and AID's Regional Bureaus a research strategy and program designed to respond to LDCs and AID's priority requirements. To this end, an informal committee for research strategy and priorities should be established with members from both AID and Johns Hopkins and perhaps with the addition of representatives of WHO, PAHO and other major international groups. Priority should be given to using grant funds to increase institutional response capability for technical advisory services in the field. This means more interdepartmental involvement of economists, social scientists and physicians in direct assistance to LDC's. Provision should be made with grant funds for more release time for DIH staff to be involved in response to LDC and AID requests. <p style="text-align: right;">(continued on page 1A)</p>	Dec. 1974

D. REPLACING NO. SERIES	REVISED OR NEW	<input checked="" type="checkbox"/> PROP	<input type="checkbox"/> PIP	<input type="checkbox"/> PRO AC	<input checked="" type="checkbox"/> PIO/T	<input type="checkbox"/> PIO/C	<input type="checkbox"/> PIO/P	E. DATE OF MISSION REVIEW 24-25 Oct. 1974
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PROJECT MANAGER: TYPED NAME, SIGNED INITIALS AND DATE William E. Worcester, Jr. <i>W.E.W.</i> 12/6/74	MISSION OFFICER: TYPED NAME, SIGNED INITIALS AND DATE Office <i>L.M.H.</i> Lee M. Howard
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Continued from Page 1:

5. The university should continue and intensify its collection of information, data and documents within the range of its interests and country orientation. Efforts should be made to broaden the dissemination of John Hopkins publications data and country information to a larger clientele, especially the data available on AID KPAs.
6. DIH should continue to establish and strengthen LDC linkages with a view to facilitating and encouraging the establishment of strong national institutions for training, planning, research and demonstrations in health planning and low cost health delivery systems.
7. Grant support should be provided for other utilization activities including but not limited to the following:
 - The conduct of at least two training projects per year in LDCs to train planners in techniques and methodologies of health planning and planning low cost health delivery systems.
 - The holding of periodic meetings (two to four) each year with linkage institutions either in the LDCs or in the U.S.
 - The revising and updating of the DIH health planning manual and its distribution to LDC and other institutions as widely as possible.
 - Devote more time and resources to studies of effect of the economic development on health, and to cost effectiveness studies of alternative health measures.
 - Relate the overseas field requirements for graduate students and international health residents to ongoing AID planning and low cost delivery programs in LDCs.

UNITED STATES GOVERNMENT

Memorandum

TO : Dr. Lee M. Howard, TA/H *James Banta*

FROM : Dr. James Banta, TA/H
William E. Worcester, Jr., TA/H *W.E. Worcester, Jr.*

DATE: January 13, 1975

SUBJECT: Analysis of 211(d) Team Report on Johns Hopkins University, DIH

The review of the Johns Hopkins 211(d) represented the inputs of the TAB Grants Coordinator, TA/H, representatives of both technical and program offices of regional bureaus and an outside expert. The team concluded that in spite of the lack of specificity in the original grant, the performance of DIH both quantitatively and qualitatively made an important contribution to AID and the LDCs in support of AID priorities in international health.

The team recommended that the 211(d) grant to JHU be extended as a utilization grant focussed on health planning and low cost delivery systems with certain constructive qualifications. The new grant should focus on strengthening and utilization of response capabilities in: (1) training and education, (2) research, (3) technical advisory services, (4) collection and dissemination of data, (5) institutional linkages. The team further recommended that these outputs be directed toward a redefined focus which emphasizes health planning (particularly micro-planning) and systems for low cost delivery of health services.

In addition to the recommendation that the grant be extended in a utilization phase, the team specified several specific requirements that should be incorporated in the new grant as follows:

1. The university should continue to seek other external sources of funding for its international program in DIH with the aims of reducing its unhealthy dependence on AID for so large a proportion of its support.
2. The principal activity financed by the grant should focus on the areas of AID priority, i.e., health planning and low cost delivery systems. These priorities should be reflected in DIH training and curriculum, research strategy, and in faculty competence to give technical advisory service to LDCs.
3. DIH should develop jointly with TA/H and AID's regional bureaus a research strategy and program designed to respond to LDCs and AID's priority requirements.



4. Priority should be given to using grant funds to increase institutional response capability for technical advisory services in the field. This means more interdepartmental involvement of economists, social scientists and physicians in direct assistance to LDC's. Provision should be made with grant funds for more release time for DIH staff to be involved in response to LDC and AID requests.
5. The university should continue and intensify its collection of information, data and documents within the range of its interests and country orientation. Efforts should be made to broaden the dissemination of Johns Hopkins publications data and country information to a larger clientele, especially the data available on AID KPA's.
6. DIH should continue to establish and strengthen LDC linkages with a view to facilitating and encouraging the establishment of strong national institutions for training, planning, research and demonstrations in health planning and low cost health delivery systems.
7. Grant support should be provided for other utilization activities including but not limited to the following:
 - The conduct of at least two training projects per year in LDC's to train planners in techniques and methodologies of health planning and planning low cost health delivery systems.
 - The holding of periodic meetings (two to four) each year with linkage institutions either in the LDC's or in the U.S.
 - The revising and updating of the DIH health planning manual and its distribution to LDC and other institutions as widely as possible.
 - Devote more time and resources to studies of effect of the economic development on health, and to cost effectiveness studies of alternative health measures.
 - Relate the overseas field requirements for graduate students and international health residents to ongoing AID planning and low cost delivery programs in LDCs.

The Office of Health generally concurs in the Evaluation Team's conclusions and recommendations. TA/H in reviewing the report agrees with the team that the core staff capabilities of DIH have developed substantially in teaching, research, and advisory capacities and that the Department has reached a level of development which assures adequate

response to demands for services from AID, LDCs and international organizations. TA/H strongly urges that the resource of DIH be utilized in the future in the areas of health planning and low cost delivery systems and that the grant be extended.

With respect to the team's insistence on the University's seeking other external funding, we are in full agreement, but we are also aware of the increasing efforts of Johns Hopkins University to obtain assistance from other sources and the difficulty under present economic conditions and curtailment of contributions from government and foundations to obtain new commitments. The same condition applies to additional support from the University.

We are also in accord with the team's recommendation that more release time be provided for DIH faculty so that it can respond to requests for overseas technical advisory services. We expect a substantial increase of demand for such services.

TA/H is very much aware of the increasing focus of DIH in the areas of AID priorities and supports the team's conclusions that there has been a coincidence of interest of DIH and TA/H in health planning and low cost delivery system emphasis. We have received the same conclusion from the AID regional bureaus which have utilized the services of DIH, particularly in health planning.

In any extension of the grant TA/H will urge participation of AID regional bureaus and TAB with Johns Hopkins in developing a research strategy that will accommodate AID, LDCs and Johns Hopkins needs. Prior to the past year such joint considerations were informal. We endorse the idea of the Evaluation Team that an informal committee be established to consider research strategy.

We strongly endorse the team's recommendation for increased attention by DIH to economic studies on the effect of health on development and on cost effectiveness studies of alternative health measures.

In converting the present grant to a utilization phase, we feel that the linkage already established by Johns Hopkins with overseas ministries and institutions will serve to provide AID and the LDCs with training and demonstration facilities to carry out programs in health planning and low cost delivery systems.

We recommend that you approve the attached PAR face sheet so that we may proceed to process a grant request.

Attachment a/s

UNITED STATES GOVERNMENT

Memorandum

TO : Dr. Lee M. Howard, TA/H

DATE: January 6, 1975

FROM : Raymond E. Kitchell, AA/TA *RE*
Chairman, Comprehensive Review Team

SUBJECT: Review and Site Visit of Johns Hopkins School of Hygiene, Department of International Health, October 24 and 25, 1974.

BACKGROUND

A two-day review of the 211(d) grant made to Johns Hopkins Department of International Health (School of Hygiene and Public Health) was made by an AID team on October 24 at Baltimore, Maryland and on October 25 in Washington. The team consisted of Raymond Kitchell, Chairman, AA/TA; Dr. James Banta, Deputy Director, TA/H; Dr. Edward Cross, AFR/DS; Ms. Maura Brackett, LA/DR; William Binford, LA/DP; and Dr. Donald Pitcairn, Fogarty International Center, NIH; William E. Worcester, Jr., TA/H, served as Executive Secretary to the team. Representing Johns Hopkins were: Ray Selzer, Associate Dean of the School of Hygiene and Public Health; Dr. Russ Morgan, Vice-President; Dr. Carl Taylor, Chairman of Department of International Health; and Professors T. Baker, W. Reinke, Parker, Sarma, Newman, Dr. Sorkin, economist, and other faculty members.

The session began with a greeting to the team members by Dr. Taylor on behalf of Dr. Hume, Dean of the School of Hygiene and Public Health, who was unable to be present. Dr. Taylor expressed his appreciation and stressed the paramount role that the AID 211(d) grant had played in the development of the Division of International Health. He then introduced Dr. Russ Morgan, Vice President for Health Sciences and Public Health.

Dr. Morgan prefaced his remarks by emphasizing the dedication and interest of the University in international health. He pointed out, however, that international health was highly dependent on outside assistance. In explaining the proportion of University contribution to external contribution in the Department of International Health, he quoted the figures of 14 to 15 percent from the University and 85% from external sources, primarily U.S. government and state government, but including other contributions from fees, gifts and tuition. He described the DIH income in terms of \$60-70 thousand dollars of "hard money" (university endowments, overhead, etc.) and the rest from other contributors, primarily from AID. (See Attachment A.)



Mr. Morgan then made the statement that if no contribution was forthcoming from AID, Johns Hopkins would try to keep the Division of International Health going from foundation and university endowment funds for an interim period until other contributors could be found. He explained that DIH had a number of cross appointments with other schools of the University, but that the Division of International Health represents the focal point of overseas effort.

Dr. Banta (AID) then briefly reviewed the AID emphasis on the three key problem areas of health planning, low cost health delivery systems and environmental health. He pointed out that these problem areas coincided with the emphasis of Johns Hopkins and that the Division of International Health was depended upon to provide a resource backstop in the first two of these KPAs.

The history of the current 211(d) institutional grant was then discussed, principally by Dr. Taylor. The original grant was made in CY-1968 to cover the period from July 1, 1968 to June 30, 1973 and was then extended to June 30, 1974 without additional funding. The amount of the grant was \$1,800,000. In June 1974 an additional \$150,000 was added to the grant which, with the carryover from the original grant, extended the operation of the DIH through February 1975. The basis for making the 211(d) grant was in response to the AID's need for enhancing institutional capacity in health and population. The purpose of the grant in 1968 was stated as follows:

1. To strengthen education competence in the University by expanding its teaching capacity and curriculum in international health, population dynamics and family planning as related to the needs of LDCs.
2. To strengthen the research capability in those fields as an integral part of the institutional grant program.

Dr. Taylor pointed out that while 2/3 of the grant came from Title X funds, the actual curriculum and faculty were involved in programs which were identified as 25% health, 25% population and 50% mixed, or programs that both in curriculum and research supported both health and population.

Dr. Taylor also recited the earlier history of the Department of International Health (prior to the 211(d) grant). He stated that the Department of International Health was started in 1961 in response to a request from AID. Both AID and WHO expressed the need for an academic base to provide backup for international health programs. As a result

of this demand the Department evolved as the only U.S. university department entirely devoted to international health. The 211(d) grant was thus built on a base that needed greater faculty strength and more systematic and formal institutional relationships.

Parallel to the DIH, a Division of Population Dynamics was started in 1965 in the Department of Maternal and Child Health of the School of Hygiene. This Division became a separate department in 1971.

In addition to these two departments, funding from the 211(d) has been used in support of the Department of Biostatistics, Behavioral Sciences and Gynecology and Obstetrics.

At the initiation of the grant in 1968, the support of the faculty of DIH provided for four full time equivalent man years. By the fifth year of the grant, 7.7 man years were provided for approximately fifteen people involved in teaching, research and technical advisory service.

Since 1970, AID has funneled its Title X funds through the University Population Center by means of a University Services Agreement. As a consequence there has been a significant shifting of AID population funds within the University and the largest proportion now goes to the Department of Population Dynamics. This, together with a progressive decrease of Ford Foundation and HEW support, and larger grants to the Department of Obstetrics and Gynecology, sharply reduces the funds available for core support of population and health activities in DIH.

Following Dr. Taylor's outline of the history of the Division of International Health and the 211(d) grant, there was general discussion of the progress and limitations under the grant. The interdepartmental contributions of faculty and resources were discussed and the shift of emphasis of the 1968 original activities to stress low cost delivery systems (planning was already a prime objective of DIH) was pointed out by Dr. Taylor as having become one of the most important themes of the teaching and research strategy as a result of AID's emphasis. Dr. Taylor further mentioned the number of students moving into leadership roles in LDCs and in such programs as MEDEX, UCLA-Danfa Program, and leadership in AID country programs.

DISCUSSION OF ISSUES

Issue No. 1 - Achievement of Grant Purpose

This issue was posed in terms of qualitative and quantitative increase in the institutional capability of Johns Hopkins during the years of the grant; the number of participants among MPH candidates, the competence of the Department in research areas, design of research projects, and interdisciplinary resources devoted to programs in training and research.

Dr. Taylor pointed out the results of the grant in terms of staff capability and size; 4 man years to 7.7 man years at present and the number of participating professors from 7 to 15 by 1973. Another evidence of the achievement of competence in the field of international health during the period of the grant was its recognition by the professional community evidenced by awards in international health by APHA, the bestowing on DIH of the Ryan Prize and the Goldberger Award.

To a question of the application of some of the techniques and planning methodologies used overseas to the U.S. ghettos and rural areas, Dr. Taylor was doubtful whether there was direct application. Dr. Baker stressed the point that DIH fosters programs of international health throughout the University. Interdepartmental appointments involving Arts and Sciences, the Medical School, the School of Health Services and the School of International Studies are frequently made. In a written reply to a question on this issue as to the relation of teaching staff to AID's areas of specialization, i.e. health planning and low cost health delivery systems, Johns Hopkins replied that approximately 2.7 man years were engaged in health planning activities and 1.5 in low cost delivery systems. The remainder of the time was 3.0 devoted to other health areas.

Dr. Taylor stated he shares the concern of AID that DIH is overly dependent on continuing government support. He pointed out that tenure does indicate some University commitment and four members of DIH staff are tenured; but if funding is lacking, he was of the opinion that the tenured faculty would leave the DIH to go to other areas which did have funds.

In response to a question of how research and teaching are identified as separately funded under the 211(d), Dr. Taylor stated that training included research as well as supervision of overseas training and research by graduates. He called this type of training "one to one" training. Teaching is constantly being evaluated, and curriculum development is a continuous dynamic process. Much of the time spent by the faculty is in assisting graduate residents in research project design, health project planning, follow-up and evaluation.

In terms of present education and training capacity, Dr. Taylor gave the following breakdown:

1. Doctoral Candidates - av. 8 DPH, DSC and Ph.D. per year.
2. International Health Residents - 4 per year.
(DIH offers international health residencies to MDs which include two years of experience in preventive medicine and public health under field supervision after their MPH academic work.)
3. MPH - 20 per year.

4. Senior Health Planners - 20 to 25 per year for a two-month course and 15 per year for the four-month course. DIH also gives non-academic long term training to nationals in LDCs in the field, and finally the Department gives an average of two short courses per year in various parts of the world.

The team then expressed its concern with what appeared a lack of a research strategy. Various members queried Johns Hopkins about how research was related to AID priorities. Dr. Banta expressed the observation that there has not been prior consultation between AID and Johns Hopkins on research strategy. In reply Dr. Taylor acknowledged that there has not been sufficient pre-consultation on research, but pointed out that the areas of health planning and the development of low cost delivery systems were defined as two major emphases in research in the mid 1960's and in frequent consultation with Dr. Howard they were accepted as the first two of TA/H's three KPA's in 1970. Numerous research activities are being developed relating to specific sub-sections of those problem areas. In the area of Health Planning, Johns Hopkins has devised a unique method of microplanning (functional analysis) at the local level and continues developing and utilizing research results stemming from that project. Other areas for research have been manpower planning and sector analysis, both of which can be used for low cost delivery systems. Further questions elicited the reply that specific research projects are decided upon by group decision rather than under a long term research strategy.

The team felt that JHU should concentrate on longer term research strategy and confer with AID on the focus of research planning. They also expressed the opinion that the time represented for research is primarily for research planning. In response to a request from the Chairman a list of areas where DIH feels it can focus and make a contribution was presented.

TA/H is generally satisfied with the quality and quantity of output of training, research and responsiveness to field requests for advisory services under the grant. TA/H would have liked to have had DIH make more release time available for field advisory services. While early research was random, it is encouraging to note that the recent projects are more focussed on AID KPAs. TA/H concurs with the review team that there is need for more frequent consultation with DIH on research strategy.

(See Attachment B.)

Issue 2 - Response Capability for Health Planning and
Health Delivery Advisory Service

The review teams then took up the subject of institutional response capabilities of DIH. At the request of the Chairman, Johns Hopkins furnished a listing of faculty competence - DIH by each member of the staff. (See Attachment C.)

Discussion followed on whether short term consultation could be assured. Dr. Taylor pointed out the constraints of time because of firm commitments in teaching and research. It was then agreed that any new 211(d) should be utilized to provide release time for such requirements. Dr. Taylor then explained some long term involvements of DIH staff in "think tank" activity such as its membership on the advisory board of the APHA and the Council for International Health and consultation with TA/H on KPAs. He felt that a balance should be struck between long range and short range response. It was agreed that the 211(d) request should be reviewed in its utilization mode to provide response services for both types of requests.

Issue 3 - Gaps and Refinements to AID Priorities

In describing this issue TA/H stated that given the fact that grant objectives were vague and mixed with population, there is concern that current AID priorities had not been sufficiently addressed. One of these areas of insufficiency is the economic aspects of planning. One member of the review group also added the area of social science and motivational studies as not having received sufficient attention. In the general discussion that followed Dr. Taylor conceded that economic aspects of health are not well understood and gave several reasons for this.

Economic aspects of health planning methodology have not, in general, been given the attention they deserve for three principal reasons: (1) health professionals tend to be unfamiliar with the basic concepts of economics while economists are generally unfamiliar with the special features of the health care system which affect economic analysis; (2) the economic interactions of health care, the impact of health itself on economic development, and the contributions of economic development to improved health are not well understood; and (3) no clear agreement has been reached concerning the relative importance of health care as an investment in human capital in contrast to its justification as a desired element of consumption.

Despite that, DIH has done a state of the arts analysis of health and economic development. In addition, the Department has added a health economics to its staff, Dr. Allen Sorkin, who has developed courses in health economics. Some studies in this field undertaken by Johns Hopkins include "An Analysis of Punjab Data Related to Health and Population Variables", and "Productivity of Workers and Health in Cali, Colombia". Johns Hopkins does not feel that health economics is a serious gap. Nevertheless, some members of the team expressed the opinion that health and economic development should be explored further in terms of cost-benefit studies.

Development of Information Materials and Their Dissemination

Questions were raised by the team on the role of Johns Hopkins Department of International Health regarding information collection, analysis and dissemination as a legitimate and important activity of the department. Dr. Taylor mentioned that in the five years period of this grant, the department has published 160 articles in various scientific journals, dealing not only with specific bio-medical topics such as nutrition, but also with various aspects of health planning, health care systems, and training and education in health sciences. Dr. Taylor felt that the principle obligation in an academic department is a generation of information and its dissemination within the limits of its ability. Dr. Taylor viewed the broad scale collection, classification, and storage of information from extra-departmental sources as a highly desirable objective but one which exceeded Johns Hopkins Department of International Health capacity. He considered that it would be more appropriate for a single agency, federal or non-federal, to serve as a clearing house for information retrieval and dissemination relating to international health. There was general agreement by the team with the viewpoint that Johns Hopkins not be a center for general collection of information but that an outside institution which had that as its primary objective should be designated. Possibilities are the World Health Organization or a private organization such as the American Public Health Association or the Council of International Health.

Institutional Linkages

There was general discussion of the development and utilization of institutional linkages and to what extent the Department of International Health, through its faculty exchange and joint projects for research and pilot projects has developed these linkages. In the written reply to these questions earlier raised in the issues paper by TA/H, Johns Hopkins mentioned several linkages that had been established since and before the beginning of the grant. As an example, the Institute for Child Health in Lagos, Nigeria was mentioned. In this institution, an AID supported

national training program offers the opportunity for pioneering work in the use of ancillary health professionals delivering health and family planning services at low cost for the population of Nigeria. Teams are trained in Lagos who then set up satellite training programs in each state. This demonstration is an example for Africa as well as other regions. Also as part of the international work of the Department of International Health, there are linkages with the Institute for Nutritional Research in Lima, Peru. This Institute has been carrying out pioneering work in nutrition for the past ten years. The research findings have important implications for nutritional components of low cost delivery systems. This linkage has developed interest in productivity, and has led to the award of a Goldberger nutrition prize to Dr. George Graham of DIH. A third linkage is with the School of Public Health in Jakarta, Indonesia which will promote the use of low cost health delivery services throughout Indonesia.

There are other linkages where periodic LDC consultation will be maintained with the Department of International Health, for instance the Department of Community Medicine in Shiraz, Iran, the Fomeco in Zaire, the Bangladesh Ministry of Public Health, International Institute for Rural Reconstruction in the Philippines, also the School of Public Health at Seoul National University in Korea and the Institute of Public Health in Vietnam. In effect, Johns Hopkins took issue with the implication that one of the gaps in the total efforts of the Department of International Health is a lack of comprehensive linkages with LDC institutions. The above examples were presented to counteract such a conclusion.

In the discussion that followed, the point was made that people are the key development resource, and development involves an interaction of attitudes and motivation with ways of doing things through linkages with LDC institutions. To be effective in reaching specified goals within a context of positive and acceptable socio-political side effects, there is need for careful and deliberate planning that involves all the interested parties, particularly those in the country. To have operational usefulness, JHU and other interested parties in the U.S. and abroad are encouraged to disseminate knowledge to support development of operational applications in the field, to encourage additional research and analysis and to support the training of practitioners through linkages.

Coincidence of Interests of KPA's of TA/H and DIH Priorities

As indicated previously, at least two of AID's KPA's, those of health planning and low cost delivery services, have been priority items in the

objectives of DIH. Even prior to 1962, and certainly before the initiation of the 211(d) grant for institutional development, planning was the unique contribution of DIH to international health. Especially through special courses for health planners and senior national planners from various government agencies in the LDCs, this planning course has become well known. The 211(d) grant emphasized this priority, and in 1970, at the time that Dr. Howard, Director of the Office of Health, TAB, proposed health planning as one of the KPA's, extensive conferences were held with Johns Hopkins to develop this key problem area. Since then, the resources and response capability of DIH has been called on frequently to provide technical assistance as well as specialized training for health planners to fulfill the needs of TA/H, the regional bureaus and AID in general as well as LDC's and international organizations. Johns Hopkins pointed out that essentially the Narangwa project in India is a micro planning project; that much that has been learned in the coordination of resources with needs in the villages, and in the local areas in India, is applicable to other low cost local health delivery systems. While "low cost delivery systems" has not been identified as such in the teaching, research, and technical assistance provided by DIH, the titles of the projects, the results of its technical advisory services, and the contents of the curriculum, indicate that low cost delivery programs were a primary output of much of the DIH efforts.

Dr. Banta explained that the Johns Hopkins School of Hygiene and Public Health is part of a larger network of institutions mobilized by TA/H to provide support for the health programs of AID. While Hopkins has been seminal in its influence on international health, several other schools of public health have international health programs - University of Hawaii, Pittsburgh, North Carolina, Michigan, UCLA and Tulane have either programs or divisions. TA/H has the challenge of coordinating and mobilizing the expertise of these academic resources and insuring the kinds of inter-institutional dialogue that is likely to generate solutions to the key problem areas of health. Dr. Banta stated that JHU will be encouraged to consult with its sister institutions concerning low cost integrated health delivery systems and it is anticipated that AID and LDCs will benefit from these coordinated endeavors.

Environmental Health

There was some general discussion on the use of the Division of International Health and Johns Hopkins as a primary resource in environmental health. It was the opinion of the team that there were other sources for obtaining much of the resources and information on international health and the environment. The team discouraged the idea of this 211(d) grant supporting the development of a tropical medicine center as an expansion of their environmental health program. The team recommended that JHU concentrate its efforts on health planning and health delivery systems.

Issue 4 - Rationale for Utilization Grant

In considering extension of the 211(d) in the utilization mode, the team raised several questions about the proposal of Johns Hopkins in moving from emphasis on the development of institutional capabilities to a new phase of primary emphasis - utilization of the resources for response capability. In terms of outputs, the team had certain specific questions and reservations on the areas where the Division of International Health could provide most competence.

Since the purpose of the proposed grant is to maintain and focus the institutional response capacity of Johns Hopkins Department of International Health for active utilization in: training and education, research, advisory services, information collection and dissemination, and the establishment and strengthening of institutional linkages, discussion was held on each of these output capabilities.

INSTITUTIONAL RESPONSE CAPABILITIES

(1) Training and Education

Discussion centered around the point made in the issues paper that the Department of International Health since 1962 had devoted a major part of its resources to training participants for leadership in international health. These participants included candidates for MPH degrees, specialized courses in health planning and delivery of low cost health service systems. The number given by the University as to present output was 12 senior planners and 20 or more MPH candidates majoring in international health. In response to the question as to whether the DIH will be able to maintain this level of training with the new grant, Dr. Taylor stated that three types of degree programs will continue. Candidates for the Doctor of Public Health in International Health will continue at approximately two per year. In addition, there will be fellowships for International Health Residents. An International Health Resident is a doctor serving overseas in an approved residency in Preventive Medicine and Public Health. The doctor may work in an LDC on AID priority programs or on other international programs. Dr. Taylor considered that four to six International Health Residents would be the output in this area per year. The MPH candidates in international health would concentrate on AID priority areas, particularly in health planning. The number of MPH candidates in DIH will continue to be about 20 to 25 per year, of which at least half will be from the LDCs. As for senior health planners, degree candidates and senior officials from the LDC governments will take

the short two-month course or the four-month course. Dr. Taylor estimates 20 to 25 participants will take the two-month course and about 15 will take the four-month. The subject of overseas training courses was discussed by the group and Johns Hopkins agreed to running at least two regional training programs per year overseas. The AID members of the team felt that this would be an excellent use of grant funds as supporting the overseas regional training courses. In a written statement accompanying the reply to the issues paper, the Division of International Health mentioned that they anticipate increased participation in the expanded four-month program. Recent expressions of interest by foreign governments coupled with the prospect for formal institutional linkages suggest that it will be possible to conduct short courses, workshops and seminars for a substantial number of participants in selected countries overseas. Such training programs, which would have the advantage of dealing with country-specific programs might be given as often as twice a year. One of the AID Regional Bureau team members pointed out that there will be a sufficient and continuous demand for training of health planners, both overseas and in the Baltimore site for the next three years.

The AID African Bureau representative expressed the idea that training packages could be developed through DIH planning with regional bureaus to include both training at Johns Hopkins and providing for full follow-up in the LDCs, supported principally by funds other than the 211(d).

(2) Research and Extended Knowledge Base

Research capability of the Division of International Health was extensively addressed by the team. It was agreed that support of faculty for design of research projects and working with LDC leaders in field demonstrations was a basic element of the grant. DIH staff should also be required to prepare findings for dissemination and supervise field work. The specific role of the grant in support of AID priorities in research was described by Dr. Taylor as funding core support for actual research projects, and to provide an institutional backstop and follow-through. Mr. Kitchell pointed out that the 211(d) grant could be used support basic research, exploration, and preparatory phases of more involved research and development activity and that the primary purpose of grant-supported research is to extend the knowledge base and keep the capacity in being and viable. It was emphasized that research planning and development of research strategy requires periodic discussions between DIH, TA/H and the LDCs. In this way, the health priorities of AID will constantly be kept in the forefront of Johns Hopkins research strategy.

In response to the question on how much faculty time will be devoted to research, Dr. Taylor mentioned that about 2/3 of the faculty time under this grant will be devoted to teaching and research. This will represent about five full-time equivalent faculty members per year, 60% of which would be for research. A listing of the expected areas of research which would be in accord with AID/KPA priorities is attached to this report. (See attachment C.)

One of the members of the team expressed the hope that under an extended or utilization grant much of the research resource base will be devoted to the support of studies economic effects of health, and methodologies of micro planning. Johns Hopkins will also make comparative analyses of selected low cost delivery systems projects around the world. DIH expressed interest in implementation of local adaptations for training auxiliary health workers and further research will be done on the use of auxiliary manpower in health delivery systems. As a final point in discussing research utilization, it was suggested by members that DIH take the initiative in setting up an annual meeting involving relevant bureaus of AID to discuss research needs and priorities. Also included in that meeting would be representatives of a selected range of other agencies such as HEW, The World Bank, and the UN.

(3) Advisory Services

In the utilization phase, advisory response capability will be of prime importance to AID and other agencies. A general discussion was held on the capability of DIH to respond to AID demands in its priority areas. It was recognized that under a 211(d) utilization grant, greater advisory service response capability will have to be built up while still keeping in balance the other responsibilities of the department. Dr. Taylor mentioned that the principles and areas involved in such advisory response capabilities are similar to the research questions because the development of competence tends to follow the lead of research activities. A list of current faculty capabilities which must be interpreted in light of their efforts to focus on health planning and low cost delivery systems is attached and is included as an appendix to this report. (See attachment D.)

In justifying budget support under a 211(d) grant for advisory service output, Dr. Taylor stressed the importance of several types of personnel support needed. First, the actual faculty time that is not paid for directly by the consultation itself. This includes preparation, reporting, and the essential process of maintaining competence in the area through meetings, seminars, readings, and research. It also includes the ability

to make a quick response which may not justify all of the processing costs of getting separate funding for the consultation. For instance, stopping off to visit AID missions or institutions while engaged in other field activities. And very important, there is the element of release time - the necessity to have sufficient depth of faculty so that there are individuals who can cover on-campus responsibilities while faculty advisory personnel are on field assignments.

At this point, regional bureau representatives of AID pointed out that a substantial demand has been built up in problem areas requiring advisory services. The Latin American Bureau, for instance, is especially anxious to receive the results of their research findings in the area of low cost delivery systems, functional analysis, and health planning. Maintenance of an advisory capacity is therefore essential to the program. While most funding for such consultative service comes in the forms of contracts, basic support is necessary to maintain a continuing capability to respond to requests. Priorities for responding to requests for advisory service will be determined by AID and the country's priority. First priority would of course be given to countries of importance to AID and about which DIH has considerable knowledge. Next, priorities with respect to type of service would be given to those functional categories in which DIH has special expertise and potential for immediate benefits. This would include particular opportunities for productive application of the results of research. It was felt that a utilization grant should include a contingency cost for quick response services for consultation which would not otherwise be covered by such devices as contracts and country grants.

(4) Collection and Dissemination of Health Data and Information

In connection with this topic, it was mentioned in the issues paper that the collection and dissemination of information on international health is at present inadequate in U.S. institutions and international organizations. Discussions centered around how the grant proposes to support the establishment of collection of documents, data, and other information at Johns Hopkins University. In fact, the question was raised as to whether JHU should be a central repository for all data and other information in connection with international health. Hopkins does have a retrieval and collection system for data banks for those countries in which Johns Hopkins makes studies or performs various advisory services. DIH has not attempted to set up a library system except for JHU generated material. It was suggested that the National Council for International Health might be considered for a central repository. Dr. Taylor did not think that Johns Hopkins was the appropriate site for such a center. Some of the

information efforts of DIH that could be funded under a utilization grant would be faculty publications, both completed and in preparation pertinent to the key problem areas of AID, a new collection of teaching manuals for auxiliary and para-medical health programs which are now in preparation and which may run approximately to 40 or 50 volumes, a health planning data bank based on data acquired by Johns Hopkins for countries in which they have particular interest and a bank of video tapes covering topics in international health, family planning and nutrition. About twenty of these are planned for taping in the next several years.

And finally in this area, Johns Hopkins publishes the International Journal of Health Services which is periodically issued and contains a number of articles on health delivery systems, as well as health planning and economic analysis. Johns Hopkins is also involved at the moment in a revision of its manual on health planning. This should be continued as it has become a definitive work for health planners in methodology and technique. Dr. Taylor felt that the principal obligation of an academic department is the generation of information and its dissemination within the limits of its ability.

The team agrees with Dr. Taylor's description of the role of the university, but feels that wider dissemination of information materials should be made under the utilization grant

(5) Institutional Linkages

A whole network of linkages now exist between JHU and various institutions and individuals around the world. The team discussed the need to organize them into a pattern of programmed linkages to accomplish specified purposes on several levels:

1. Institutional linkages on the domestic level with other university programs in international health and U.S. based international organizations, e.g. PAHO, Church World Service.
2. On the international level with W.H.O., The Christian Medical Commission, etc.
3. On the LDC level with LDC institutions and key individuals.

The purpose of these linkages, e.g., may be to transfer new ideas or assist in problem-solving in the development of health planning and the delivery of health services to the working level of activities in the LDCs by participating in joint operational programs, joint research, faculty and student exchanges, the sharing of curriculum materials with LDC training

institutions, and by personal contacts with former students and national leaders. Since change must take place within the cultural, social and political framework of the LDC, it can only be effected by LDC personnel and the input of JHU will be the transfer of ideas and innovative joint approaches to LDC problems through LDC linkages.

JHU has a wealth of contacts with former students who have now reached positions of influence in LDC institutions and government programs. The faculty also serves as governing board members or consultants to numerous organizations active in the international health field. Therefore, they are able to get a LDC feedback into their university teaching program and to act as the transfer agent for innovative approaches among various groups. The establishment and maintenance of institutional linkages at these various levels is an ongoing activity by all members of the faculty and should be included as part of the core activity which any utilization grant supports.

FINDINGS AND CONCLUSIONS

The review made it clear that the DIH staff capabilities under the 211(d) development grant had increased considerably in teaching, research, supervision and design of projects, and in new techniques and methodologies for microplanning. The PHA/POP evaluation report on the University Services Agreement with Johns Hopkins, University of North Carolina and the University of Michigan dated November 11, 1974 in discussing the performance of the schools, states that JHU is the most qualified in the management and operation of its activities.

There is some doubt as to the University's ability to furnish additional financial support to the Division of International Health and the team was convinced that a viable response capability could only be maintained by the continued infusion of funds from external sources. There was no doubt as to the intent and commitment of the University to maintain international health as a major mission and objective of the University as evidenced by Dr. Morgan's statement. The team was concerned with the need for more cooperation and discussion on research strategy and the focus of research on the key problem objectives of AID. The team also felt that greater attention should be given to domestic linkages for purposes of inter-institutional contributions to problem solving in the LDCs. It was also concluded that Johns Hopkins potentially had the capability in a single organizational entity (the Department of International Health) to assist in most aspects of health planning and health delivery systems. There was some feeling on the part of the team that the DIH response capability for field consultation needed to be strengthened. An

extension of the grant would have to provide for release time during the absence of one or more of the teaching staff on assignments. The team felt that in general AID's KPA objectives coincided with the DIH objectives in two of the problem areas.

It was generally agreed that there had been some problems in communication between AID and DIH, especially in research, in that AID did not tell the University just what it wanted, and in turn DIH had not taken TA/H into its confidence in setting up its priorities. The team was impressed with the recognition of DIH by its peers as a major influence in international health as evidenced by the awards of national and international prizes in that field to the Department. The team also evidenced interest and commended JHU on the "think tank" activity of DIH staff whereby its members participate in long range planning bodies of APHA and other organizations for LDC development.

Achievement of Grant Purpose

Given the lack of requirement for definite activities and given the broad general objectives of the earlier 211(d) grant, the Division of International Health has accomplished a great deal. Quantitatively, the staff has been supplemented in numbers and by the addition of greater interdisciplinary resources and capability. The curriculum has been developing in the areas of planning and delivery services as related to the needs of LDC's and AID objectives. Even though no quantitative goals were set in terms of trained planners, it was concluded by the team that there is evidence that the grant had served to enhance the capability of Johns Hopkins to train senior health planners and leaders in LDC Public Health.

In terms of the "ability of the Institute to strengthen research capability" there was no stated research strategy, but the DIH conference method for selection of research projects developed a comprehensive list of projects that related to health planning and delivery systems.

Support by the University

It was evident that the University supports DIH and regards it as the focus for their international activities as indicated by the statement of the Vice-President. It was, however, also obvious that such verbal commitment was not supported by actual funding commitments for any long period of time. It was obvious to the team that DIH would cease to function as an organization that could effectively support AID's international health activities without a continuing flow of external funds for the indefinite future. While the conclusion was reached that AID should not commit itself indefinitely to be the major supporter of DIH, it is

evident that a 211(d) in the utilization mode is necessary so long as DIH serves AID priority purposes and utilization by USAID's, other donors and/or LDC's warrants such support.

Compatibility of DIH Research Objectives with AID Priorities

The lengthy discussion of research strategy led to the conclusion that a comprehensive research strategy had not materialized during the period of the grant and although research competence in design, conceptualization and methodology had increased substantially, a broad program addressing AID's and LDC's needs had not been mutually developed by Johns Hopkins and AID. It was obvious to the team that if AID is to support and utilize the research capabilities of DIH, there is need for closer planning coordination in strategy determination and priorities and informal dialogues between AID's regional bureaus, selected USAID's, and DIH during the course of research activity. The discussion also brought forth the necessity for Johns Hopkins to make its research results available more widely by dissemination of data and information through publications, seminars and discussions. The team also concluded that in the research area as well as in other activities, linkages should be established toward common goals with domestic "sister" institutions. The discussion also led to the conclusion that the DIH teaching and research competence in the economics of health should be strengthened considerably especially in producing cost-effectiveness studies to support low cost delivery systems.

Information Collection and Retrieval

It is evident that Johns Hopkins is not in a position to maintain information repositories and data banks on all aspects of international health. The effort and resources required for an extensive information collection and dissemination system would tax the Department of International Health far beyond its capacity and expanding its capacity to accommodate a total information system would be inappropriate for a department of a university. The review team concluded that DIH should continue to collect information and data on the selected countries and subjects that it had a specific interest in, and that it should expand the dissemination of its collection of planning documents, manuals, videotapes and other information relating to its areas of competence and interest. As a result of the discussion on information, the team agreed that a broader data bank and information retrieval system on all aspects of international health is greatly needed and that AID and other interested parties should seek to establish such an information program within a private foundation or organization especially set up for that purpose. DIH, along with other health institutions, could feed in its information and data to such a system for retrieval and dissemination.

Advisory Service Response Capability

The team was convinced that the 211(d) institutional development grant had played an important role in improving and expanding the capability of DIH to provide advisory services to AID, LDCs and other donors for assistance in health planning. However it was clear that the demands of teaching and other university commitments limited the staff's ability to satisfy much of the AID requirements for field technical advisory service planning assistance and advice on delivery systems for health, population and nutrition. It was felt that a utilization grant must give priority to providing support for advisory service to LDCs in depth. With the expected frequency of demand, means must be found to provide release time so that the consulting staff could respond more readily to anticipated AID regional bureau and LDC requests. The range of competence displayed by the faculty of DIH convinced the team that Johns Hopkins provides a rich resource in planning, manpower, project design and evaluation of low cost delivery systems and national health planning programs.

Institutional Linkages

In the course of the development of DIH, both prior and during the current grant, important linkages have been developed with LDC institutions and ministries. The linkage with Narangwal and villages in the Punjab has served to make that site a key laboratory for training, research and testing of new methodologies in planning and low cost delivery systems. DIH, through its training of senior planners, its degree programs including field residencies and short training courses in LDC's, has achieved an established network of LDC institutions with which it can collaborate in dissemination and demonstration of research results. In addition, as a result of its technical advisory service in health planning and manpower planning for many LDC ministries of health, a solid base is available for achieving AID health goals in a number of LDCs. The team concluded that the linkages already established would be a critical factor in assuring widespread collaboration with and utilization of DIH resources if the present grant is extended into an active utilization phase.

The team was somewhat less impressed with the nature of cooperative and collaborative linkages that DIH has established with U.S. institutions. There are some interchanges of information and knowledge with other universities and public health schools in the U.S. but neither concerted efforts nor joint collaboration with other institutions toward problem solving in key health areas was apparent. The team felt that greater efforts should be made by both DIH and TA/H to develop specific and purposeful linkages leading to faculty and student exchange, joint research, etc.

RECOMMENDATIONS

The review team recommends that the existing grant be extended and converted into an active utilization phase but, within the framework of the findings and conclusions set forth above, be subject to the following qualifications and/or conditions:

1. The university should continue to seek other external sources of funding for its international program in DIH with the aims of reducing its unhealthy dependence on AID for so large a proportion of its support.
2. The principal activity financed by the grant should focus on the areas of AID priority, i.e., health planning and low cost delivery systems. These priorities should be reflected in DIH training and curriculum, research strategy, and in faculty competence to give technical advisory service to LDCs.
3. DIH should develop jointly with TA/H and AID's Regional Bureaus a research strategy and program designed to respond to LDCs and AID's priority requirements.

To this end, an informal committee for research strategy and priorities should be established with members from both AID and Johns Hopkins and perhaps with the addition of representatives of WHO, PAHO and other major international groups.

4. Priority should be given to using grant funds to increase institutional response capability for technical advisory services in the field. This means more interdepartmental involvement of economists, social scientists and physicians in direct assistance to LDC's. Provision should be made with grant funds for more release time for DIH staff to be involved in response to LDC and AID requests.
5. The university should continue and intensify its collection of information, data and documents within the range of its interests and country orientation. Efforts should be made to broaden the dissemination of Johns Hopkins publications data and country information to a larger clientele, especially the data available on AID KPA's.
6. DIH should continue to establish and strengthen LDC linkages with a view to facilitating and encouraging the establishment of strong national institutions for training, planning, research and demonstrations in health planning and low cost health delivery systems.

7. Grant support should be provided for other utilization activities including but not limited to the following:
 - The conduct of at least two training projects per year in LDC's to train planners in techniques and methodologies of health planning and planning low cost health delivery systems.
 - The holding of periodic meetings (two to four) each year with linkage institutions either in the LDC's or in the U.S.
 - The revising and updating of the DIH health planning manual and its distribution to LDC and other institutions as widely as possible.
 - Devote more time and resources to studies of effect of the economic development on health, and to cost effectiveness studies of alternative health measures.
 - Relate the overseas field requirements for graduate students and international health residents to ongoing AID planning and low cost delivery programs in LDCs.

SUPPORT AVAILABLE TO DEPARTMENT OF INTERNATIONAL HEALTH FY '75GOVERNMENT SOURCES

<u>AID</u>		
csd 1939	\$191,378 @	
nesa 435	257,484 ***	
ta c 1085	23,115 @	
pha c 1039	431,312 *	
csd 2832	17,002	
csd 2956	<u>11,105</u>	
Total AID		\$ 931,396

<u>NIH</u>		
5 P01 HD06268-02	9,827	
AM 09980-10	42,484	
3 R09 FM 09640-08SL	<u>1,551</u>	
Total NIH		53,862

PRIVATE SOURCES

Miles Laboratories	10,517 @	
The Pathfinder Fund	10,000	
Chesapeake Physicians, P.A.	3,000 @	
China Medical Board	8,350	
World Health Organization	4,224	
The Edward M. Ryan Prize	10,000	
Christian Commission for Development in Bangladesh	<u>61,981</u>	
Total Private Sources		108,072

<u>UNIVERSITY SUPPORT</u>	<u>92,277 @**</u>	
Total University Support		<u>92,277</u>

TOTAL SUPPORT

\$1,185,607

Sources of support marked (@) will be utilized in FY '75 primarily to support the activities of the Baltimore faculty.

* Includes approximately \$90,000 of support for Department activities. Balance restricted to local project costs in Nigeria.

** In previous years the University provided less than 1% of Department funding

*** Primarily for special research project

12/5/74

THE JOHNS HOPKINS UNIVERSITY
 School of Hygiene and Public Health
 Comparative Statement of Revenues and Expenditures
 (Thousands of Dollars)

Attachment

	General Funds			Sponsored Research, Training and Other Programs 1974-75	Total Budget 1974-75
	Actual 1972-73	Budget 1973-74	Budget 1974-75		
<u>Revenues</u>					
Allocated General Revenues	\$ 2,095	\$ 1,733	\$ 2,500		\$ 2,500
Designated Funds	-	-	-		-
Endowment Income	703	618	916		916
Funds Functioning as Endowment	-	-	-		-
Restricted Gifts and Grants					
Government	444	462	465	12,010	12,475
Private	66	144	150	900	1,050
Other Sources	17	12	13	-	13
Auxiliary Enterprises	114	162	125	-	125
<u>Total</u>	<u>\$ 3,439</u>	<u>\$ 3,331</u>	<u>\$ 4,159</u>	<u>\$12,910</u>	<u>\$17,079</u>
<u>Expenditures</u>					
Instruction and Research	\$ 1,454	\$ 1,521	\$ 1,973	\$12,424	\$14,397
Organized Activities	42	53	36	436	522
Libraries	22	29	31	-	31
Operation and Maintenance of Plant	766	834	874	-	874
General Services and Administration	503	473	511	-	511
Student Services	162	153	166	-	166
Student Aid	117	100	400	-	400
Auxiliary Enterprises	144	168	173	-	173
Contingencies	-	-	-	-	-
<u>Total</u>	<u>\$ 3,210</u>	<u>\$ 3,331</u>	<u>\$ 4,159</u>	<u>\$12,910</u>	<u>\$17,079</u>
Excess (deficiency) of Revenues over Expenditures	229	-	-	-	-
	<u>\$ 3,439</u>	<u>\$ 3,331</u>	<u>\$ 4,159</u>	<u>\$12,910</u>	<u>\$17,079</u>

ATTACHMENT B

POTENTIAL AREAS FOR RESEARCH

- 1) Health Planning
 - a) Cost/benefit matrix in allocation of resources.
 - b) Applications and refinement of functional analysis methodology.
 - c) Approaches to decentralization of planning and getting maximum peripheral involvement as a means of improving implementation.
 - d) Methods of job analysis in functional terms as basis for reallocation of roles in manpower planning.
 - e) Educational planning for new role allocations.
 - f) Motivational issues at the interface between health and population planning, especially the strength and manipulability of practical program considerations arising from the child survival hypothesis.
 - g) The ethical-political issues arising from the increasing inability to cope with famines and disasters.
 - h) The administrative and planning considerations relating to how disaster relief can be used to promote general development rather than interfere with it, with special reference to nutrition planning.
 - i) The ethical-political issues arising from the current U.S. and worldwide posture on international assistance as they relate to health-population and nutrition planning.
 - j) The balance of program relationships between nutrition planning, population planning and health planning.

- k) Relation between categorical programs and general health services with methods of integrating them when the categorical program is in a maintenance phase.
- l) Efficiency/equity trade-offs in the location of health services.
- m) Assessment of the relationship between content, context, and effectiveness of health services.
- n) Identification of appropriate health-service activities for delivery of health care under varying circumstances of health needs, socio-cultural constraints, density of population, terrain, level of skills of available manpower, etc.

2) Low Cost Delivery Systems

- a) Entry points for family planning in delivery systems integrating health, family planning and nutrition.
- b) Practical methods of maintaining program synergism between activities for improving nutrition and infection control.
- c) Measures to maintain and improve environmental conditions as part of integrated peripheral services.
- d) Patterns of organization that can be adapted to the needs of the urban poor as well as the rural poor.
- e) Basic issues related to practical measures making it possible for communities and families to pay for their own health care while maintaining a primary emphasis on complete coverage as part of a general effort to diminish corruption and inefficiencies in administration by getting control into the hands of consumers.

- f) Selection of peripheral primary care workers and means of matching worker profiles to village profiles.
- g) Supervisory patterns in the health team and simplified information systems.
- h) Adjusting training to job analysis especially through in-service educational activities.
- i) Mobilization of resources within the community especially local payment mechanisms, practical measures for identifying, training and using village volunteers.
- j) Epidemiological studies of health and nutrition problems and how low cost delivery systems can be adapted to meet specific health needs.
- k) Improved use of specific family planning methods in integrated health systems.
- l) Alternatives to fixed service delivery points.
- m) Development of integrated low cost health delivery systems so as to incorporate existing specific disease control programs.
- n) Development of effective and simple information and record keeping systems for low-cost delivery programs that permit adequate evaluation as well as provide immediate information for control and management.

1. Listing of Faculty Competence in DIH

a. Carl E. Taylor, M.D., Dr. P.H., Professor and Chairman

1) Integration of health planning, population planning and nutrition planning and integrated service packages for family planning, nutrition and maternal child health.

2) Ethical and value issues in the planning process.

3) Community involvement in health planning.

4) Job analysis in integrated health teams and educational planning to accommodate reallocation of functional roles and for teaching in public health and community medicine.

5) Design of research projects for low cost delivery systems and for field surveys for defining need and demand.

b. Timothy D. Baker, M.D., M.P.H., Professor

1) Health planning techniques.

2) Health manpower planning.

3) Evaluation of health services.

4) Design and evaluation of low cost health delivery systems.

5) Combinations of epidemiologic and economic techniques in health planning and development of low cost health delivery systems. (Areas of previous work in the health field - India, Ceylon, Taiwan, Indonesia, Saudi Arabia, Vietnam, Thailand, Brazil, Peru, El Salvador)

c. William A. Reinke, Ph.D., Professor

1) Evaluation of health and family planning projects or programs; especially developing planning cells and information systems.

2) Health practice research, operations research, systems analysis in health and family planning.

3) Planning of health services, applications of functional analysis and utilization patterns of health services.

4) Development of alternative approaches to health administration, allocation of job responsibilities, and control and management functions.

d. Robert D. Wright, M.D., M.P.H., Professor

1) Integrated service packages for family planning, nutrition and maternal child health.

2) Ethical and value issues in the planning process and training of health personnel.

3) Educational programming to accommodate reallocation of functional roles.

4) Design of projects for low cost delivery systems.

5) Educational planning for public health and community medicine.

e. Alan L. Sorkin, Ph.D., Associate Professor

I am willing to consult on projects in the economics of health and development in the summer months and January (my duties at UMBC preclude consultations at other times during the year).

f. Prakash Grover, M.P.H., Ph.D., Assistant Professor

1) Exploring collaboration potential of indigenous medicine systems in furthering the objectives of official health systems.

2) Health services delivery systems and problems emerging from: factors related to the providers of care and their organizations; socio-cultural characteristics of the populations served.

3) Planning health service projects for rural populations within the constraints of a less developed economy.

4) Strategies for community health education for rural populations.

5) Family decision-making processes.

g. Jeanne S. Newman, Ph.D., Assistant Professor

1) Location of service delivery points.

2) Catchment area analysis - boundary definition, regional assignments.

3) Routing of mobile units.

4) Development of small special-purpose data archives, information unit for health, population planning.

5) Evaluation of demographic data for health and population planning.

6) Population estimation and projection - national, regional.

7) Demographic analysis - fertility, mortality, inter-regional migration flows.

8) Social area analysis.

9) Analysis of regional settlement structure.

10) Field surveys - sampling, questionnaire design, quality control.

h. Robert L. Parker, M.D., M.P.H., Assistant Professor

- 1) Assessment of health services (functional analysis, evaluation, health services research).
- 2) Research-development-organization of low cost delivery systems (rural, auxiliary based).
- 3) Integrated MCH-family planning services.
- 4) Field research - organization and implementation of health related studies (surveys, health service statistics, observational studies, etc.)

i) R.S.S. Sarma, Ph.D., Assistant Professor

- 1) Design of community health and family planning studies.
- 2) Conduct of demographic studies and evaluation of family planning programs.
- 3) Curriculum development and teaching of demography and biostatistics.
- 4) Cost-benefit and cost-effectiveness of health and family planning programs.
- 5) Development and use in evaluation of service statistics.
- 6) Development of macro and micro demographic models.
- 7) Data management and analysis in the field of health and family planning.

j) Melvyn C. Thorne, M.D., M.P.H., Assistant Professor

- 1) Design, organization and management of family planning and maternal and child health services.
- 2) Programs and techniques for training of health personnel.
- 3) Design, organization, management and use of service for evaluation of health services.
- 4) Training of auxiliaries and indigenous practitioners.
- 5) Planning for population education, including design of teaching materials and training of teachers.
- 6) Health planning and population planning.

k) Arnfried A. Kielmann, M.D., M.P.H., Research Associate

- 1) Organization of field surveys for defining health and nutrition needs and demands.
- 2) Design and evaluation of nutrition research, demonstration or service programs.
- 3) Development and evaluation of integrated service packages for maternal-child health and nutrition.
- 4) Design and evaluation of low-cost service delivery programs.
- 5) Elaboration and evaluation of health auxiliary training programs.
- 6) Health and nutrition service planning and their intergration.