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Department of State

TELEGRAM

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TAGS:

SUBJECT: HEALTH IMPROVEMENT OF YOUNG CHILDREN GRANT

AA/LA APPROVES SUBJECT GRANT FOR TOTAL OF 375,000 DOLS.,  
WITH FY 76 AND IW OBLIGATIONS AT 178,000 DOLS. AND  
50,000 DOLS. RESPECTIVELY. KISSINGER

UNCLASSIFIED

PROJECT  
GRANT AGREEMENT  
BETWEEN  
JAMAICA  
and the  
UNITED STATES OF AMERICA  
for  
HEALTH IMPROVEMENT FOR YOUNG CHILDREN

Dated: June 15, 1979

## Project Grant Agreement

Dated June 15, 1979

Between

Jamaica ("Grantee"), acting through the Ministry of Finance and Planning

And

The United States of America, acting through the Agency for International Development ("A.I.D.").

### Article 1: The Agreement

The purpose of this Agreement is to set out the understandings of the parties named above ("Parties") with respect to the undertaking by the Grantee of the Project described below, and with respect to the financing of the Project by the Parties.

### Article 2: The Project

SECTION 2.1 Definition of Project. The Project, which is further described in Annex 1, is designed to assist the Ministry of Health and Environmental Control to implement an integrated primary health care system based on the concept of community health teams. The project will have a national focus as well as concentrated efforts in Cornwall county in conjunction with the implementation of the IBRD "JPP II" health and population loan project in Cornwall. Both long-term and short-term assistance will be provided in such areas as curriculum development, training, evaluation, management, planning, development of policy and procedure manuals, and information system development. Annex 1, attached, amplifies the above definition of the Project. Within the limits of the above definition of the Project, elements of the amplified description stated in Annex 1 may be changed by written agreement of the authorized representatives of the Parties named in Section 7.2, without formal amendment of this Agreement.

### SECTION 2.2 Incremental Nature of Project.

(a) A.I.D.'s contribution to the Project is being provided in increments, the current one being made available in accordance with Section 3.1 of this Agreement. Subsequent increments will be subject to availability of funds to A.I.D. for this purpose, and to the mutual agreement of the Parties, at the time of a subsequent increment, to proceed.

## Article 2: The Project (Continued)

(b) Previously A.I.D. contributed US\$275,000 to the Project (US \$178,000 under Project Agreement 76-4 and US\$97,000 under Project Agreement 78-3).

(c) Within the overall Project Assistance Completion Date stated in this Agreement, A.I.D., based upon consultation with the Grantee, may specify in Project Implementation Letters appropriate time periods for the utilization of funds granted by A.I.D. under an individual increment of assistance.

## Article 3: Financing

SECTION 3.1 The Grant. To assist the Grantee to meet the costs of carrying out the Project, A.I.D., pursuant to the Foreign Assistance Act of 1961, as amended, and the General Agreement for Economic, Technical, and Related Assistance of October 24, 1963, agrees to grant the Grantee under the terms of this Agreement not to exceed ninety-seven thousand United States ("U.S.") Dollars (\$97,000) ("Grant"). The Grant may be used to finance foreign exchange costs, as defined in Section 6.1, and local currency costs, as defined in Section 6.2, of goods and services required for the Project.

### SECTION 3.2 Grantee Resources for the Project.

(a) The Grantee agrees to provide or cause to be provided for the Project all funds, in addition to the Grant, and all other resources required to carry out the Project effectively and in a timely manner.

(b) The resources provided by Grantee for the Project will be not less than the equivalent of U.S. \$480,000, including costs borne on an "in-kind" basis.

(c) Previously the Grantee contributed to the Project the equivalent of U.S.\$692,000 (U.S.\$370,000 under Project Agreement 76-4 and U.S. \$322,000 under Project Agreement 78-3).

### SECTION 3.3 Project Assistance Completion Date.

(a) The "Project Assistance Completion Date" (PACD), which is December 31, 1980, or such other date as the Parties may agree to in writing, is the date by which the Parties estimate that all services financed under the Grant will have been performed and all goods financed under the Grant will have been furnished for the Project as contemplated in this Agreement.

(b) Except as A.I.D. may otherwise agree in writing, A.I.D. will not issue or approve documentation which would authorize disbursement of

### Article 3: Financing (Continued)

the Grant for services performed subsequent to the PACD or for goods furnished for the project, as contemplated in this Agreement, subsequent to the PACD.

(c) Requests for disbursement, accompanied by necessary supporting documentation prescribed in Project Implementation Letters are to be received by A.I.D. no later than nine (9) months following the PACD, or such other period as A.I.D. agrees to in writing. After such period, A.I.D., giving notice in writing to the Grantee, may at any time or times reduce the amount of the Grant by all or any part thereof for which requests for disbursement, accompanied by necessary supporting documentation prescribed in Project Implementation Letters, were not received before the expiration of said period.

### Article 4: Special Covenants

SECTION 4.1 Project Evaluation. The Parties agree to establish an evaluation program as part of the Project. Except as the Parties otherwise agree in writing, the program will include, during the implementation of the Project and at one or more points thereafter:

(a) evaluation of progress toward attainment of the objectives of the Project;

(b) identification and evaluation of problem areas or constraints which may inhibit such attainment;

(c) assessment of how such information may be used to help overcome such problems; and

(d) evaluation, to the degree feasible, of the overall development impact of the Project.

### Article 5: Procurement Source

#### SECTION 5.1 Foreign Exchange Costs.

(a) Disbursements pursuant to Section 6.1 will be used exclusively to finance the costs of goods and services required for the Project having their source and origin in the United States (Code 000 of the A.I.D. Geographic Code Book as in effect at the time orders are placed or contracts entered into for such goods or services) ("Foreign Exchange Costs"), except as A.I.D. may otherwise agree in writing, and except as provided in the Project Grant Standard Provisions Annex, Section C.1(b) with respect to marine insurance.

## Article 5: Procurement Source (Continued)

(b) Ocean transportation costs will be financed under the Grant only on vessels under flag registry of the United States or Jamaica, i.e. Grantee, except as A.I.D. may otherwise agree in writing. If A.I.D. determines either that there are no vessels under flag registry of Jamaica generally available for ocean transportation, or that Jamaica has no access to U.S. flag service, A.I.D. in a Project Implementation Letter may agree to finance under the Grant ocean transportation costs on vessels under flag registry of any country included in A.I.D. Geographic Code Book 941.

SECTION 5.2. Local Currency Costs. Disbursements pursuant to Section 6.2. will be used exclusively to finance the costs of goods and services required for the Project having their source and, except as A.I.D. may otherwise agree in writing, their origin in Jamaica ("Local Currency Costs").

## Article 6: Disbursement

### SECTION 6.1 Disbursement for Foreign Exchange Costs.

The Grantee may obtain disbursements of funds under the Grant for the Foreign Exchange Costs of goods or services required for the Project in accordance with the terms of this Agreement, by submitting to A.I.D., with necessary supporting documentation as prescribed in Project Implementation Letters, (A) requests for reimbursement for such goods or services, or, (B) requests for A.I.D. to procure commodities or services in Grantee's behalf for the Project.

### SECTION 6.2 Disbursement for Local Currency Costs.

(a) The Grantee may obtain disbursements of funds under the Grant for Local Currency Costs required for the Project in accordance with the terms of this Agreement, by submitting to A.I.D., with necessary supporting documentation as prescribed in Project Implementation Letters, requests to finance such costs.

(b) The local currency needed for such disbursements may be obtained by acquisition by A.I.D. with U.S. Dollars by purchase or from local currency already owned by the U.S. Government.

(c) The U.S. dollar equivalent of the local currency made available hereunder will be the amount of U.S. dollars required by A.I.D. to obtain the local currency.

SECTION 6.3 Other Forms of Disbursement. Disbursements of the Grant may also be made through such other means as the Parties may agree to in writing.

Article 6: Disbursement (Continued)

SECTION 6.4 Rate of Exchange. Except as may be more specifically provided under Section 6.2, if funds provided under the Grant are introduced into Jamaica by A.I.D. or any public or private agency for purposes of carrying out obligations of A.I.D. hereunder, the Grantee will make such arrangements as may be necessary so that such funds may be converted into currency of Jamaica at the highest rate of exchange which, at the time the conversion is made, is not unlawful in Jamaica.

Article 7: Miscellaneous

SECTION 7.1 Communications. Any notice, request, document, or other communication submitted by either Party to the other under this Agreement will be in writing or by telegram or cable, and will be deemed duly given or sent when delivered to such party at the following addresses:

To the Grantee: The Permanent Secretary  
Ministry of Health & Environmental Control  
Mail and Cable Address: 10 Calèdonia Avenue  
Kingston 5, Jamaica.

To A.I.D.: The Director  
USAID Jamaica  
Mail and Cable Address: 2 Oxford Road  
Kingston 5, Jamaica.

All such communications will be in English. Other addresses may be substituted for the above upon the giving of notice. The Grantee, in addition, will provide the USAID Mission with a copy of each communication sent to A.I.D. Washington.

SECTION 7.2 Representatives. For all purposes relevant to this Agreement, the Grantee will be represented by the individual holding or acting in the office of Permanent Secretary, MOHEC and A.I.D. will be represented by the individual holding or acting in the office of Director USAID/Jamaica, each of whom, by written notice, may designate additional representatives for all purposes other than exercising the power under Section 2.1 to revise elements of the amplified description in Annex 1. The names of the representatives of the Grantee, with specimen signatures, will be provided to A.I.D., which may accept as duly authorized any instrument signed by such representatives in implementation of this Agreement, until receipt of written notice of revocation of their authority.

Article 7: Miscellaneous (Continued)

SECTION 7.3 Standard Provisions Annex. A "Project Grant Standard Provisions Annex" (Annex 2) is attached to and forms part of this Agreement.

SECTION 7.4 Language of Agreement. This Agreement is prepared in English.

IN WITNESS WHEREOF, the Grantee and the United States of America, each acting through its duly authorized representative, have caused this Agreement to be signed in their names and delivered as of the day and year first above written.

JAMAICA

By: R. K. Kanchana

Title: Asst. Dir. Permanent Secretary  
Ministry of Health and  
Environmental Control

By: A. P. E. N.

Title: Deputy Financial Secretary  
Ministry of Finance and  
Planning

UNITED STATES OF AMERICA

By: Aracelis L. L...

Title: Director  
USAID Jamaica

I. Project Description

The goal of the project is to assist the GOJ to develop a national health care delivery system designed to reach the rural population of Jamaica. The sub-goal and purpose of this project are to improve the primary health care delivery system within the County of Cornwall as a prototype for replication islandwide.

The project will assist the Cornwall County Health Administrative Office in implementing a primary health care delivery system by developing revised curricula and training programs for health care providers, management and data collection systems, and increasing the efficiency of support services within Cornwall County. Simultaneous to the work in Cornwall County, the project will assist the Training Branch of the Ministry of Health and Environmental Control to prepare for implementation of the primary health care system islandwide by revising curriculum and developing training plans and parish training coordinators to implement the training programs.

II. Objectives

The objectives at the central level (MOHEC) are to develop training plans, procedures, and teams and to improve management and data collection systems related to implementation of the primary health care system. In Cornwall County, the objectives are to establish a training unit at the Cornwall County Health Administrative Office, to improve and decentralize the health management system and to evaluate the training and performance of health team members under the primary health care system and the efficiency of services provided under the system.

### III. Project Components

#### A. AID

- Long-term U.S. technical assistance in curriculum design and training.
- Short-term U.S. technical assistance in health system related areas, especially curriculum design.
- Local technical assistance in management, evaluation, and production of policy and procedure manuals.
- Participant training in primary health care management.
- Other support costs.
- Project evaluation.
- Local training, commodities and related equipment.

#### B. GOJ

- Salaries of staff involved in implementing the primary health care program.
- Administrative and operating costs of the program.
- Necessary logistic support for Jamaican staff and U.S. and local technicians.
- Training facilities.
- Local costs associated with specific training and evaluation activities.

### IV. Implementation

The project will be implemented by the Central Training Branch and the Cornwall County Health Administrative Office of MOHEC. Technical assistance will be provided through one or more contracts with appropriate individuals and/or institutions with demonstrated capability in primary health care service delivery and training. The contractor(s) will assist in developing the capacity and expertise of the MOHEC Training Branch and the Corn-

Wall County Health Administrative Office (CCHAO) by providing operational guidance and on-the-job training to MOHEC health workers.

## V. Evaluation

There will be two project evaluations. The first will cover the first 18 months of project implementation and will provide GOJ and AID project managers with an indication as to the direction and progress of the project and recommendations for revised project outputs and remedial actions, if necessary. The second evaluation will cover the second 18 months of the project and will examine achievement of project outputs, purpose, and goal and whether the estimated project completion date, now set at December 31, 1980, should be extended.

## VI. Financial Contributions

### A. U.S. Contribution

AID agrees to contribute from FY 79 funds an amount not to exceed \$97,000 for the following purposes: services and technical assistance, \$80,000; training, \$10,000; and other costs, \$7,000.

### B. GOJ Contribution

The GOJ agrees to contribute during the year covered by this agreement the equivalent of U.S.\$480,000 for salaries of Cornwall County health personnel, operating and logistic support, medicine and equipment connected with the primary health care delivery system in Cornwall County, training and other costs. In the previous two Agreements, the GOJ contributed the equivalent of U.S.\$692,000 for a total life of project contribution of U.S.\$1,172,000.

ILLUSTRATIVE PROJECT FINANCIAL PLAN

(Source and Application of Funding - \$ Thousands)

As of May 1979

Project No. 532-0040

PROJECT INPUTS	AMOUNT FOR AN INCREMENTALLY FUNDED PROJECT					
	Cumulative Obligations/ Commitments		This Agreement		<u>Total</u>	
	A.I.D.	Grantee	A.I.D.	Grantee	A.I.D.	Grantee
Services	270	600	80	300	350	900
Training	.5	80	10	150	10.5	230
Other Costs	4.5	12	7	30	11.5	42
<b>TOTAL</b>	275	692	97	480	372	1,172

## ANNEX 2

### Project Grant Standard

#### Provisions Annex

Definitions: As used in this Annex, the "Agreement" refers to the Project Grant Agreement to which this Annex is attached and of which this Annex forms a part. Terms used in this Annex have the same meaning or reference as in the Agreement.

#### Article A: Project Implementation Letters

To assist Grantee in the implementation of the Project, A.I.D. from time to time, will issue Project Implementation Letters that will furnish additional information about matters stated in this Agreement. The parties may also use jointly agreed-upon Project Implementation Letters to confirm and record their mutual understanding on aspects of the implementation of this Agreement. Project Implementation Letters will not be used to amend the text of the Agreement, but can be used to record revisions or exceptions which are permitted by the Agreement, including the revision of elements of the amplified description of the Project in Annex 1.

#### Article B: General Covenants

SECTION B.1. Consultation. The Parties will cooperate to assure that the purpose of this Agreement will be accomplished. To this end, the Parties, at the request of either, will exchange views on the progress of the Project, the performance of obligations under this Agreement, the performance of any consultants, contractors, or suppliers engaged on the Project, and other matters relating to the Project.

SECTION B.2. Execution of Project. The Grantee will:

(a) carry out the Project or cause it to be carried out with due diligence and efficiency, in conformity with sound technical, financial, and management practices, and in conformity with those documents, plans, specifications, contracts, schedules or other arrangements, and with any modifications therein, approved by A.I.D. pursuant to this Agreement; and

(b) provide qualified and experienced management for, and train such staff as may be appropriate for the maintenance and operation of the Project, and, as applicable for continuing activities, cause the Project to be operated and maintained in such manner as to assure the continuing and successful achievement of the purposes of the Project.

Article B: General Covenants (Continued)

SECTION B.3 Utilization of Goods and Services.

(a) Any resources financed under the Grant will, unless otherwise agreed in writing by A.I.D., be devoted to the Project until the completion of the Project, and thereafter will be used so as to further the objectives sought in carrying out the Project.

(b) Goods or services financed under the Grant, except as A.I.D. may otherwise agree in writing, will not be used to promote or assist a foreign aid project or activity associated with or financed by a country not included in Code 935 of the A.I.D. Geographic Code Book as in effect at the time of such use.

SECTION B.4. Taxation.

(a) This Agreement and the Grant will be free from any taxation or fees imposed under laws in effect in the territory of the Grantee.

(b) To the extent that (1) any contractor, including any consulting firm, any personnel of such contractor financed under the Grant, and any property or transaction relating to such contracts and (2) any commodity procurement transaction financed under the Grant, are not exempt from identifiable taxes, tariffs, duties or other levies imposed under laws in effect in the territory of the Grantee, the Grantee will, as and to the extent provided in and pursuant to Project Implementation Letters, pay or reimburse the same with funds other than those provided under the Grant.

SECTION B.5. Reports, Records, Inspections, Audit.

The Grantee will:

(a) furnish A.I.D. such information and reports relating to the Project and to this Agreement as A.I.D. may reasonably request;

(b) maintain or cause to be maintained, in accordance with generally accepted accounting principles and practices consistently applied, books and records relating to the Project and to this Agreement, adequate to show, without limitation, the receipt and use of goods and services acquired under the Grant. Such books and records will be audited regularly, in accordance with generally accepted auditing standards, and maintained for three years after the date of last disbursement by A.I.D.; such books and records will also be adequate to show the nature and extent of solicitations of prospective suppliers of goods and services acquired, the basis of award of contracts and orders, and the overall progress of the Project toward completion; and

## Article B: General Covenants (Continued)

(c) afford authorized representatives of a Party the opportunity at all reasonable times to inspect the Project, the utilization of goods and services financed by such Party, and books, records, and other documents relating to the Project and the Grant.

### SECTION B.6. Completeness of Information. The Grantee confirms:

(a) that the facts and circumstances of which it has informed A.I.D., or cause A.I.D. to be informed, in the course of reaching agreement with A.I.D. on the Grant, are accurate and complete, and include all facts and circumstances that might materially affect the Project and the discharge of responsibilities under this Agreement;

(b) that it will inform A.I.D. in timely fashion of any subsequent facts and circumstances that might materially affect, or that it is reasonable to believe might so affect, the Project or the discharge of responsibilities under this Agreement.

SECTION B.7. Other Payments. Grantee affirms that no payments have been or will be received by any official of the Grantee in connection with the procurement of goods or services financed under the Grant, except fees, taxes, or similar payments legally established in the country of the Grantee.

SECTION B.8. Information and Marking. The Grantee will give appropriate publicity to the Grant and the Project; as a program to which the United States has contributed, identify the Project site, and mark goods financed by A.I.D., as described in Project Implementation Letters.

## Article C: Procurement Provisions

### SECTION C.1. Special Rules.

(a) The source and origin of ocean and air shipping will be deemed to be the ocean vessel's or aircraft's country of registry at the time of shipment.

(b) Premiums for marine insurance placed in the territory of the Grantee will be deemed an eligible Foreign Exchange Cost, if otherwise eligible under Section C.7(a).

(c) Any motor vehicles financed under the Grant will be of United States manufacture, except as A.I.D. may otherwise agree in writing.

Article C: Procurement Provisions (Continued)

(d) Transportation by air, financed under the Grant, of property or persons, will be on carriers holding United States certification, to the extent service by such carriers is available. Details on this requirement will be described in a Project Implementation Letter.

SECTION C.2. Eligibility Date. No goods or services may be financed under the Grant which are procured pursuant to orders or contracts firmly placed or entered into prior to the date of this Agreement, except as the Parties may otherwise agree in writing.

SECTION C.3. Plans, Specifications, and Contracts. In order for there to be mutual agreement on the following matters, as the Parties may otherwise agree in writing:

(a) The Grantee will furnish to A.I.D. upon preparation,

(1) any plans, specifications, procurement or construction schedules, contracts, or other documentation relating to goods or services to be financed under the Grant, including documentation relating to the prequalification and selection of contractors and to the solicitation of bids and proposals. Material modifications in such documentation will likewise be furnished A.I.D. on preparation;

(2) such documentation will also be furnished to A.I.D., upon preparation, relating to any goods or services, which, though not financed under the Grant, are deemed by A.I.D. to be of major importance to the Project. Aspects of the Project involving matters under this subsection (a)(2) will be identified in Project Implementation Letters;

(b) Documents related to the prequalification of contractors, and to the solicitation of bids or proposals for goods and services financed under the Grant will be approved by A.I.D. in writing prior to their issuance, and their terms will include United States standards and measurements;

(c) Contracts and contractors financed under the Grant for engineering and other professional services, for construction services, and for such other services, equipment or materials as may be specified in Project Implementation Letters, will be approved by A.I.D. in writing prior to execution of the contract. Material modifications in such contracts will also be approved in writing by A.I.D. prior to execution; and

Article C: Procurement Provisions (Continued)

(d) Consulting firms used by the Grantee for the Project but not financed under the Grant, the scope of their services and such of their personnel assigned to the Project as A.I.D. may specify, and construction contractors used by the Grantee for the Project but not financed under the Grant, shall be acceptable to A.I.D.

SECTION C.4. Reasonable Price. No more than reasonable prices will be paid for any goods or services financed, in whole or in part, under the Grant. Such items will be procured on a fair and, to the maximum extent practicable, on a competitive basis.

SECTION C.5. Notification to Potential Suppliers. To permit all United States firms to have the opportunity to participate in furnishing goods and services to be financed under the Grant, the Grantee will furnish A.I.D. such information with regard thereto, and at such times, as A.I.D. may request in Project Implementation Letters.

SECTION C.6. Shipping.

(a) Goods which are to be transported to the territory of the Grantee may not be financed under the Grant if transported either: (1) on an ocean vessel or aircraft under the flag of a country which is not included in A.I.D. Geographic Code 935 as in effect at the time of shipment, or (2) on an ocean vessel which A.I.D., by written notice to the Grantee has designated as ineligible; or (3) under an ocean or air charter which has not received prior A.I.D. approval.

(b) Costs of ocean or air transportation (of goods or persons) and related delivery services may not be financed under the Grant, if such goods or persons are carried: (1) on an ocean vessel under the flag of a country not, at the time of shipment, identified under the paragraph of the Agreement entitled "Procurement-Source: Foreign Exchange Costs," without prior written A.I.D. approval; or (2) on an ocean vessel which A.I.D., by written notice to the Grantee, has designated as ineligible; or (3) under an ocean vessel or air charter which has not received prior A.I.D. approval.

(c) Unless A.I.D. determines that privately owned United States-flag commercial ocean vessels are not available at fair and reasonable rates for such vessels, (1) at least fifty percent (50%) of the gross tonnage of all goods (computed separately for dry bulk carriers, dry cargo liners and tankers) financed by A.I.D. which may be transported on ocean vessels will be transported on privately owned United States-flag commercial vessels, and (2) at least fifty percent (50%) of the gross freight revenue generated by

Article C: Procurement Provisions (Continued)

all shipments financed by A.I.D. and transported to the territory of the Grantee on dry cargo liners shall be paid to or for the benefit of privately owned United States-flag commercial vessels. Compliance with the requirements of (1) and (2) of this subsection must be achieved with respect to both any cargo transported from U.S. ports and any cargo transported from non-U.S. ports, computed separately.

SECTION. C.7. Insurance.

(a) Marine insurance on goods financed by A.I.D. which are to be transported to the territory of the Grantee may be financed as a Foreign Exchange Cost under this Agreement provided (1) such insurance is placed at the lowest available competitive rate, and (2) claims thereunder are payable in the currency in which such goods were financed or in any freely convertible currency. If the Grantee (or government of Grantee), by statute, decree, rule, regulation, or practice discriminates with respect to A.I.D.-financed procurement against any marine insurance company authorized to do business in any State of the United States, then all goods shipped to the territory of the Grantee financed by A.I.D. hereunder will be insured against marine risks and such insurance will be placed in the United States with a company or companies authorized to do a marine insurance business in a State of the United States.

(b) Except as A.I.D. may otherwise agree in writing, the Grantee will insure, or cause to be insured, goods financed under the Grant imported for the Project against risks incident to their transit to the point of their use in the Project; such insurance will be issued on terms and conditions consistent with sound commercial practice and will insure the full value of the goods. Any indemnification received by the Grantee under such insurance will be used to replace or repair any material damage or any loss of the goods insured or will be used to reimburse the Grantee for the replacement or repair of such goods. Any such replacements will be of source and origin of countries listed in A.I.D. Geographic Code 935 as in effect at the time of replacement, and, except as the Parties may agree in writing, will be otherwise subject to the provisions of the Agreement.

SECTION C.8. U.S. Government-Owned Excess Property. The Grantee agrees that wherever practicable, United States Government-owned excess personal property, in lieu of new items financed under the Grant, should be utilized. Funds under the Grant may be used to finance the costs of obtaining such property for the Project.

## Article D: Termination; Remedies.

SECTION D.1. Termination. Either Party may terminate this Agreement by giving the other Party 30 days written notice. Termination of this Agreement will terminate any obligations of the Parties to provide financial or other resources to the Project pursuant to this Agreement, except for payment which they are committed to make pursuant to noncancellable commitments entered into with third parties prior to the termination of this Agreement. In addition, upon such termination A.I.D. may, at A.I.D.'s expense, direct that title to goods financed under the Grant be transferred to A.I.D. if the goods are from a source outside Grantee's country, are in a deliverable state and have not been offloaded in ports of entry of Grantee's country.

### SECTION D.2. Refunds.

(a) In the case of any disbursement which is not supported by valid documentation in accordance with this Agreement, or which is not made or used in accordance with this Agreement, or which was for goods or services not used in accordance with this Agreement, A.I.D., notwithstanding the availability or exercise of any other remedies under this Agreement, may require the Grantee to refund the amount of such disbursement in U.S. Dollars to A.I.D. within sixty (60) days after receipt of a request therefor.

(b) If the failure of Grantee to comply with any of its obligations under this Agreement has the result that goods or services financed under the Grant are not used effectively in accordance with this Agreement, A.I.D. may require the Grantee to refund all or any part of the amount of the disbursements under this Agreement for such goods or services in U.S. Dollars to A.I.D. within sixty days after receipt of a request therefor.

(c) The right under subsection (a) or (b) to require a refund of a disbursement will continue, notwithstanding any other provision of this Agreement, for three years from the date of the last disbursement under this Agreement.

(d) (1) Any refund under subsection (a) or (b), or (2) any refund to A.I.D. from a contractor, supplier, bank or other third party with respect to goods or services financed under the Grant, which refund relates to an unreasonable price for or erroneous invoicing of goods or services, or to goods that did not conform to specifications, or to services that were inadequate, will (A) be made available first for the cost of goods and services required for the Project, to the extent justified, and (B) the remainder, if any, will be applied to reduce the amount of the Grant.

Article D: Termination; Remedies (Continued)

(e) Any interest or other earnings on Grant funds disbursed by A.I.D. to the Grantee under this Agreement prior to the authorized use of such funds for the Project will be returned to A.I.D. in U.S. Dollars by the Grantee.

SECTION D.3. Nonwaiver of Remedies. No delay in exercising any right or remedy accruing to a Party in connection with its financing under this Agreement will be construed as a waiver of such right or remedy.

SECTION D.4. Assignment. The Grantee agrees, upon request, to execute an assignment to A.I.D. of any cause of action which may accrue to the Grantee in connection with or arising out of the contractual performance or breach of performance by a party to a direct U.S. Dollar contract with A.I.D. financed in whole or in part out of funds granted by A.I.D. under this Agreement.

a. Community Health Aide

The latest revised job description for a CHA states "the CHA is a member of the Health Team who has had training to work with families in the community and to be able to identify problems and bring them to the attention of trained personnel."

In order to carry out their functions, CHAs are expected to

- a) Make periodic visits to all homes in their assigned area where there are malnourished children, or where there are other persons sick or in need of assistance.
- b) Work several hours a day in Health Centers in rural areas.
- c) Take an annual census at every home in the area to make all aware of the health services available to the people.

Discussions with CHAs, PHNS, medical personnel and DMWs, as well as experiences reported from international programs, suggest that the CHAs role can be expanded to include more functions than their original focus on nutrition. The role which is suggested for the CHA is to provide personal health services, promote good health behaviour, identify and maintain individual health status, promote and work as a member of the health care team, and assist in planning for health care services in Cornwall County by carrying on an annual census. A detailed listing of functions should form the objectives of the CHAs in-service training which will be required to adequately prepare them for new roles. A detailed listing of those objectives, based upon recommendations obtained in interviews with health care personnel, is presented in Appendix .

b. Advanced Community Health Aides

Experienced, skilled CHAs should be given some job mobility by creating an intermediate level for CHAs. At present CHAs can only turn towards the Auxiliary or Assistant Nurse training for advancement. That means that skilled CHAs have to leave CHA activities in order to advance. That is waste of trained, able personnel.

Competent CHAs could be given advanced in-service training which would include some instruction in intermediate supervision. This training might take approximately 6 to 8 weeks, although guided supervision could begin that time. It is expected that a group of able CHAs could be found for advancement, as the program has been operating in some form since 1969.

c. District Midwife

The primary responsibility of the district midwife is maternity, postnatal and infant care. That role is changing. It is being asked to expand from a childbirth focus to broader child care, or family care. As more and more babies are being born in hospitals DMWs could be more effective if their functions would expand to include immunizations, injections, nutrition, childhood growth and development. The new midwifery school to be located in Cornwall County will need technical assistance to assist in necessary educational analysis and curriculum revision, so that the District Midwife can be trained to perform this expected future role. This is being provided under separate Title X funds.

d. Public Health Inspectors

The Public Health Inspectors' work is important to the health of the community. Sanitation, water and insect borne diseases are of great concern in rural areas. The health team needs the skills of a person who is responsible for environmental sanitation.

There are some overlapping functions of the PHI and other members of the team. PHIs are taught to give immunizations but are only permitted to give smallpox inoculations (PHNs carry out the immunization efforts) PHIs make quarterly visits to households in their districts to monitor sanitary conditions and incidence of insect borne disease. They check on the quality of water at the household source of supply but it is the CHA who monitors the incidence of gastrointestinal disease.

Greater utilization might be made of the PHIs if they were to be included as members of the health team at regular meetings and asked to participate in in-service training along with the CHA, DMW and PHN. Communications with the PHIs must be encouraged, and the opinions of PHIs sought as to how to make the PHI a more effective team member.

e. Public Health Nurse

Public Health Nurses have many important tasks: supervision of other health personnel, communicable disease follow-up, immunizations, etc. Some tasks including part of the direction and supervision of CHAs and the responsibility for antenatal and post-natal clinics for example could be delegated to other responsible team members. With the increased CHA and DMW staff, more supervision will be required from the Public Health Nurse. Delegation will not come easily to the PHN, for they have long had sole responsibility for many vital health services, but the other members of the team offer much. In-service training can help the PHN to delegate tasks so that the impact of the entire community health team will be increased.

2. Assignment

Once trained, the person must be hired and set to work. Approximately half the required personnel are still to be hired for the Cornwall County health project. Persons apply for positions through the central offices of the MOHEC. The MOHEC needs to review its personnel assignment system to assure that those who wish to work in rural area on community health problems have the opportunity to do so; otherwise, the problem of in-service training will be perpetuated.

One means of making sure people are utilized properly is to begin with people who are highly motivated to work in ways that are required. Job recruitment should emphasize the need for semi-autonomous persons who enjoy working in teams, like to participate in the development of programs, and are interested in the provision of rural health service. If informed fully of the needs of the project, people can make their own self-selection for

maximum utilization.

Although staffing goals are already set for this project, there is a need for a uniform method of making manpower projections. The MOHEC might examine the usefulness of the method of establishing a basic service unit per population (e.g., one CHA per 1000 population), and then project the remaining team member requirements according to a ratio of supervisors to staff (e.g., eight CHAs per 1 supervisor.) If the population changes, the manpower projections can be adjusted accordingly. There are advantages to using the number of CHAs per 1000 population as a base unit for projections. Most of the CHA services are directed to the maternal and child health population in the country -- approximately 65% of the population of Jamaica. So the base unit is giving good coverage of services. The CHA ratio would not however be an appropriate basis for planning services for the chronically ill or elderly, at least in this stage of CHA role allocation.

### 3. Supervisory Relationships

The majority of persons on the health care team are supervised by the Public Health Nurse. Lower grade Public Health Inspectors are supervised by PHIs at a higher grade. Senior Public Health Nurses supervise the PHN II and DMW, and, by extension, the AN and CHA. However, with only one or two Senior Public Health Nurses in a parish, such supervision is only minimally possible. The supervisory plans are well organized, but with low ratio of supervisors to the number of persons being supervised, the coverage is limited.

The problem of supervision for CHAs has been especially acute in Hanover since the program started with approximately 145 CHAs and only five PHN IIs and one PHN III. Medical students from Cornell and UWI also provided supervision. The Taylor/Armstrong report states that the number of medical students averaged about 3 or 4 at any given time. At the most then, there was a ratio of 16 CHAs per 1 supervisor (PHNs and medical students.)

The student program needs to continue during the Cornwall Project, to help in expansion of the program to parishes in which the supervisor-staff ratio is low.

The Cornwall County Community Health Project could flounder upon the problem of supervision in the first years. The following table presents the ratio of CHAs to possible supervisors, at present based on plans prepared in 1975 and expected by 1981 rounded to the nearest whole number:

	PHN III		PHN II		DMW		PHI		Total CHAs expected as of 1977
	1975	1981	1975	1981	1975	1981	1975	1981	
St. James	55	45	14	9	6	6	27	35	140 *
Trelawny	--	40	--	9	-	5	20	30	60
Hanover	42	47	28	10	10	6	15	30	160*
Westmoreland	44	55	14	10	5	4	26	30	60
St. Elizabeth	14	78	4	10	3	8	29	30	60

There is, however, an immediate problem. Shortly after the project begins, in January 1977, all trained CHAs will be in the field, but there will be only the present number of nurses to provide supervision, unless all additional required staff are recruited within the first months of the project.

\* These are more than needed however CHAs cannot be transferred outside of their community and will be gradually reduced by normal attrition to reach approximately 60 per parish. This ratio could be improved by including other personnel as supervisors. The most likely group would be the District Midwives. Addition of the DMW into the equation would vastly improve the ratios. However, the District Midwife in-service training will not be completed by that time to permit maximum use of their services for supervision. Plans should be made to have medical students or other students in primary care assist in supervision to those parishes where the program is new and the CHA-supervisor ratio is high. Eventually

the supervision can be expanded to a variety of groups, as the Taylor/Armstrong report suggests.

4. Data Collection, Communication and Referral

It is encouraging that the data information system will have a community health focus. Service data record forms will be revised and information will be gathered on family planning, pregnancy outcome and other health care visits, e.g., antenatal or problem oriented visits. Data collection will take place both in the clinic and at household visits. Information will be obtained on curative and preventive activities by type of provider. Provision will also be made to distinguish the counseling activities of the CHAs and DMWs. The project offers an exciting possibility of recording functions of health personnel in rural areas, as they work in the community, as well as the clinic.

The Chief Statistical Officer at the National Family Planning Board will receive the information, analyse it and then make it available in tabular form to the Project Director, and from there back to the Health Centers. It should be part of the supervisors job to dispense the information then to all the members of the health team.

Since gathering of information is important to the government to monitor its services, a significant portion of the in-service training of team members must be directed toward learning to accurately complete the forms.

5. Recruitment and Selection

According to the chart "Present Manpower and Manpower Requirements for period 1976/81", (Appendix K) 50% of the staff required for the County of Cornwall Community Health Project are presently employed. Approximately half of the remaining positions are to be filled before the end of the project. These figures, however, may be misleading since it is expected that all of the CHAs will be trained and in the field by the end of the

year 1976. The nursing and medical positions will not be filled as rapidly. Such team members must be recruited, selected and trained by more formal educational institutions, e.g., University of the West Indies, Department of Social and Preventive Medicine, St. Catherine's Midwifery School, Cornwall County Regional Hospital School of Nursing. These institutional programs have their own procedures for recruitment and selection and employ differing selection criteria for the education of different professional groups. Little attempt was made to survey these institutional programs as to possible changes that might be indicated for their selection and training. Consideration was given to CHA selection and training, since this constituted the largest group of staff, (70% of the total.) Accordingly, the comments to follow are primarily based on needs for CHA training; however, the principles on which the comments are based apply actually to all team member job categories.

#### 6. Training

The education and training of the members of the Community Health team is a key element of the Cornwall County Community Health Project. With approximately half of the personnel already at work, two types of training will be required: formal in-service education to prepare persons already working for their expanded roles, and new curriculum instruction for persons who will be attending school, graduating and taking positions in Cornwall County. However, in-service education and curriculum revision must proceed at the same time so that by the end of the project, all staff will be prepared to assume new roles in this rural community health effort.

Each job category has its own training needs, therefore the categories will be discussed separately. The recommendations for curriculum revision will be discussed first.

## 1. Medical Staff

If the staff positions are filled as planned, there will be a percent increase in the medical staff. The emphasis then must be on the preparation of new staff. The document "The Development of Community Medicine at the Cornwall Regional Hospital, Montego Bay" (Appendix ) proposes a program for undergraduate and postgraduate medical training in community health. We suggest this proposal be accepted in principle, and that the University of the West Indies through a regional Department of Community Health proceed with the preparation of residents in community medicine.

There is also a place for the training of medical and nursing students in the Cornwall County Project, as the Taylor-Armstrong report states. This can occur in two ways -- through the University of the West Indies, as outlined in D'Souza's proposal and through affiliation with Cornell and other U.S. schools. We would suggest however that the project director not limit the participation of students to medical students, but include also other students in primary care who have a commitment to rural work. This would include such Jamaican students as Nurses and Public Health Inspectors and such U.S. students as Health Associates, Nurse Practitioners, Public Health and other paramedical students.

We also recommend that the committee planning the Community Medicine training be expanded to include other members of the health team, e.g., nursing educator and that the scope of work be broadened to include consideration of preparing nurses for community health services. There are two main reasons for this recommendation. First, there must be a focus at all levels on the team approach to planning and delivery of community health services. Second, the process of planning should be shared by as wide a group as possible; otherwise the leaders of each professional group must go through the educational planning process separately, prolonging the process and increasing problems of coordination. There needs to be a sub-group for each professional discipline in order to deal with specifics of planning, but a more broadly representative committee could deal with

the overall issues of university preparation for community health services.

## 2. Nurse Practitioner

Although the use of Nurse Practitioners is outlined in the staffing proposal "The Nurse Practitioner Programme" (Appendix M), the program has not received permission to begin. A series of complex issues has been associated with beginning this program (as has been the case with the initiation of similar programs in the United States); however, it is suggested that these issues not further delay the initiation of the program. Nurse practitioners have proved their worth in several countries in the provision of safe, acceptable, high quality primary care services. The program in Jamaica should meet with as much success.

The proposal for training nurse practitioners contains the essential elements of a Nurse Practitioner program, although we do not see midwifery training as an essential pre-requisite for practitioner training. We would recommend that some of the community field experience of the NPs be gained in the Cornwall County Health Centers.

## 3. Public Health Inspectors

A representative of the Public Health Inspectors program leading to a Diploma in Community Health, at the University of the West Indies, should be included on any educational committee dealing with community health. The "fit" of this course to actual functions to be undertaken upon completion of the course should be examined, and a report issued to maximize the effectiveness and utilization of Public Health Inspectors in environmental sanitation and general health measures.

## 4. Public Health Nurses

Public Health Nurses need to receive special preparation in management and supervision so they might be more effective in the Cornwall County Project. They are expected to supervise the Community Health Aides, the District Midwives and the Assistant Nurses. Their special in-depth preparation should include the areas of communication, task delegation,

planning, evaluation, management, administration, coordination and supervision. The educational methods used should include lectures, readings and role playing and should emphasize practical experience, including discussion of actual supervisory experiences. Since their new role calls for a great deal of supervisory ability, they should be realistically prepared for the job.

#### 5. District Midwives

The curriculum of midwives is currently being reviewed in Jamaica, so that they may expand their functions to those of one who is trained for a group of categorical illnesses or health problems. In this sense the training required of DMs and CHAs is similar. Instead of the sole midwifery emphasis on childbirth, and the parallel CHA emphasis on nutrition, both groups will be trained to provide integrated services for health, nutrition and family planning.

In revising the midwifery curriculum, the planners and consultants should give consideration to the inclusion of instruction and guided experience in supervision, since DMs will also be asked to provide more effective supervision to CHAs. Again, since this role is being asked of them, they should be realistically prepared for the demands of the job.

#### 6. Assistant Nurse

The Assistant Nurse is not considered in the planning document (Appendix K), although a few are already working in Cornwall County. They appear to be uncertain of their role in the community and are underutilized. This job needs more study and definition to be most useful in this project. Faculty from the Assistant Nurse School need to be a part of any educational advisory committee so that their curriculum can best reflect the needs of the community, as seen in this project. Discussion also needs to be held with the Public Health Nurses who supervise ANs and delegate tasks to them, to work out a better utilization of this category of health worker.

7. Community Health Aides

All of the CHAs to be employed in Cornwall County during the initial three years of this project will have completed their initial training by the end of 1976, so that specific preparation for their roles in the Cornwall County project needs to be done by in-service training. We would recommend that future CHA training prepare the CHA at graduation to carry out the tasks listed in Appendix D. The MOHEC should continue to employ a formal approach to training, and to send mobile training teams to conduct the training in local areas where the candidates live and will work.

8. In-service Training: Supervisors

Team members must understand that the unique role and function of each member of the team and how to use each member most effectively. Supervisors, especially, must be able to provide the CHAs with guidance and support and enable them to work at fullest capacity. Special training is necessary for persons who will supervise aides, since this would not have been part of their initial, formal professional training.

Groups of supervisors should receive in-service training. The groups should number from eight to ten, and should include within the same group, Public Health Nurses, District Midwives, Public Health Inspectors and some experienced skilled CHAs who can be promoted to act as intermediate supervisors. Training should focus on communication, task delegation, definition of mutual roles and functions.

Training of supervisors should be done, as should other in-service training, by mobile training teams in local areas. This has the advantage of permitting systematic and standardized instruction, adapted for local needs. Cost of transportation and lodging for personnel are minimized, and there is less disruption of normal work patterns. This does however, require more administrative coordination, and personalities of the instructors are key to the success of such training.

It is very necessary that such mobile training involve local health team members including certain qualified CHAs, in working with the training team. The CHAs can be constructively used in reviewing in-service training programs.

9. In-service Training: CHA and DM

Since at the beginning of this project almost all of the CHA staff will be working, as will over 60% of the projected number of DMs, the new skills which these two groups need to learn must be gained through in-service training. This should consist of formal training, by mobile teams, but include supervisors of the groups being trained. The focus should be to expand their skills to provide maternal and child health, family planning and nutrition services in the community. The present training manual should be reviewed to see that it encompasses all the primary health care functions listed in the above discussion of team member roles.

10. In-service Training: Other Personnel

Just as the community needs to be informed of the total community health project, informal training should extend beyond members of the health team to involve key personnel at all levels, e.g., hospital personnel, supply workers, vehicle maintenance men, pharmacists. These personnel should have the opportunity to learn about emerging patterns in the use of the community health team. They need to be familiar with the changes occurring in the roles of the CHA, DM and PHN. Such communication serves as feedback on the project's efforts, and helps increase general public awareness of government efforts in the provision of rural health services.

7. Evaluation of Selection, Instruction and Job Performance of the Health Care Team

The basic principle of evaluating the manpower component of the Cornwall County Project is that evaluation must be made of the entire Community Health Care Team. It is recommended that such evaluation include the areas of selection, instruction and job performance.

1. Selection

1. It is possible to evaluate the selection process of health care team members by means of:

- a. a survey of job satisfaction of team members;
- b. examination of the records for rate of turnover (including the numbers of team members who have resigned or been dismissed);
- c. interviews with other members of the health care team as to the appropriateness of those who were selected.

2. Instruction

1. An annual check should be made of all training material and audiovisual aids used in in-service training and initial training of team members to establish whether the educational material is appropriate to the particular literacy level of the group being trained.

2. Adequacy of the training program can be determined by measuring the student's achievement at the end of the course of study in terms of the aims and objectives which were set at the beginning of the training program. Graduates should be assessed in terms of

- a. skills needed to carry out their jobs;
- b. knowledge necessary to carry out their jobs;
- c. understanding of their roles as members of the health care team, and the expectations for their job performance.

3. Job Performance

1. Periodically a functional analysis of the community health team activities should be undertaken to establish whether the team members are performing the tasks for which they were trained, and to establish what additional services they are providing which are not included in their respective curricula.

It should be noted that a functional analysis is critical to the evaluation of staff utilization in the Cornwall County project. The functional analysis should measure quantitatively in terms of time, interpersonal contacts and content the various activities of all community health team staff. Estimates should be made of the volume and source of client services, and the costs of such services.

In short the functional analyses is basically a combination of job audit to back validity of training to assignment and job specific tasks and also an analyses of the costs of the services rendered in performance of assignment.

2. Evaluation of job performance should include observation of team members in client households, in the clinics, and a check on the thoroughness and completeness of required records (e.g. Gomez charts.)

3. Evaluation of the community focus of the program can be made by determining the extent of community participation of team members, viz. the amount of time the team member spends in the clinic versus the amount of time that person spends in the client's household and travelling to households.

4. Periodic verification of the reported impact of the program on nutritional status, family planning and infant and maternal mortality in Cornwall County should be made. An attempt should be made to verify the mortality results, the incidence and prevalence of malnutrition and the adequacy of the census which the CHA has taken.

#### B. Facilities

Approximately one half of the population of Cornwall County (approximately 250,000 people) now has access to a local level health care facility, and under the World Bank loan facilities will be constructed which will make it possible to establish a comprehensive network of four types of rural health

centers throughout the county. The planned network and the four types of health centers are described in the World Bank proposal and will not be discussed here. This project, concerning human resources and management improvement will complement the construction and related activities sponsored by the World Bank, and a synergistic effect is expected. However, it is felt that the present project, even without the World Bank's parallel contributions, would be justifiable in terms of its intended benefits to the health care system and thereby to the health of the people.

C. Supply System

The MOH medical stores and equipment supply system is currently a highly centralized operation with its base in Kingston, at the other end of the island from Cornwall County. Slow and sometimes inadequate responses to the County's supply needs have awakened interest in attempting to diminish such problems by decentralizing the supply distribution system to the county level.

The IBRD will assist the GOJ in developing, implementing and evaluating a decentralized supply system in Cornwall County, as a test of its usefulness and as a model for possible later implementation in the other two countries.

D. Transportation

The importance of transportation to the adequate functioning of the health care system increases as the system attempts to serve more people, many of whom live in hard to reach places, and as responsibilities are delegated to community level workers whose supervisors need to be able to reach them in their communities.

The MOH provides some workers with interest-free loans for vehicle purchase and with a mileage-based allowance for use of private vehicles in their work.

The IBRD loan will supply 60 vehicles for use of the Cornwall County project, but these will not resolve personal transportation problems of CHAs for whom no vehicles are provided. Consideration might be given to assisting CHAs to obtain bicycles or light motorcycles where terrain permits their use.

E. Management System - Priorities for Change

This section briefly discusses management areas which should have priority in the design and implementation of the revised health care system in Cornwall County.

Personnel Management and Planning. There is need for review and revision of personnel policies and practices, including selection, training and supervision (which are discussed in the section on training.) Job mobility, delegation of authority and functions, and incentive systems are other areas needing review from a management viewpoint. The new health care system will require role expansion, other role changes, and the creation of certain new positions at the county level, i.e. Assistant nurses.

Decision Making. At present, decision making in the MOHEC is highly centralized and probably suffers from a certain degree of rigidity and the need to seek multiple approvals for what could easily be handled as routine decisions at lower decision making levels. In spite of the collection and storage (without refinement or adequate analysis) of large amounts of data, actual and potential decision makers at all levels lack adequate and appropriate information for many needed decisions. Improved and more timely decisions would probably result from delegating decision making authority to lower levels of the system, with guidance supplied by centrally established policies and guidelines and both initial and feedback information provided through an information system which includes data collection and processing, and analytic and feedback services.

Support Systems. There are indications that the MOHEC logistics and supply systems are not adequately responsive to the current health care system's needs; the increased volume and dispersion of services under the revised health care system would exacerbate these problems. Resolution of such difficulties could be attempted either by improving the established system (without making fundamental changes) or by making basic changes, such as decentralizing support services in Cornwall County. Decentralized services would be expected to improve the speed and adequacy of the support system's response to problems presented to it (e.g., an acute need for a specific drug which might now require shipment from Kingston.) The economic analysis section of this paper discusses costs which should be considered before decision to decentralize such services nationwide.

F. Development of an Information System for the Cornwall County Community Health Care System

Purposes

Information systems serving the Cornwall County Community Health Care System should be designed to facilitate and improve decision making at all levels of that system and at the national level. Decisions with which its designers should be concerned range from overall evaluation of the Cornwall County System (replication and continuation decisions) to individual client care decisions made daily by CHAs.

Information is expensive. An information system designed for a low cost health delivery system should facilitate the system's functioning without absorbing a disproportionate share of the total system's resources. Careful attention should be paid to the opportunity costs of devoting resources to health care information systems; within such a system, the costs of alternate means of filling information needs should also be considered.

Decentralization of MOHEC decision making and of support systems to Cornwall County suggests that the information needs of the health care system might best be met by a decentralized system which would permit basic tabulations and analyses to be done at the parish and county levels.

One of the most important means of streamlining the information system is to decide as early as possible to what analyses the data will be subjected, with each analysis and all data included in the system justified by the decisions to be based on the data and on the results of analyses.

Cost-effective functioning of the overall health care system might be promoted if reviews of accomplishments of the system and of its personnel considered not only quantities of services and efforts but also the population coverage attained, the distribution of services among patients and groups of patients, and the appropriateness of services provided to particular types of patients. The information system should facilitate such reviews.

#### Content Criteria

As mentioned above, inclusion of any item in the information system should be justified in terms of decision to be based on that data.

Duplication of data collection by various health workers should be reduced. Where crosschecks on data are needed, special studies can provide them.

Population denominator data is important both for planning purposes at all levels and for evaluation. Adequate denominator data is not available in Cornwall County and will have to be provided under the health project, since it is needed by the project and will not otherwise be provided. Such denominator data should be disaggregable to the family and individual level (and possibly to dwelling units) and simultaneously retrievable for all geographical units and demographic characteristics (i.e. age and sex) of importance to the project. Denominator data should result from the annual CHA census.

Generation of lists and locations of persons in the population who had not been contacted by health personnel would be useful, given the importance of population coverage in this project.

Special purpose data, which need not be collected on all patients or at all times, should not be given space on permanent forms for general use and may be included as modules to the permanent forms to be used as required or on a sample basis.

### Storage and Retrieval

Information should be stored and retrievable at levels and locations convenient to the intended usual users. Consideration should be given to methods which will allow the user to retrieve and tabulate such information with minimal or no assistance.

It is proposed that each client (or even/<sup>each</sup>potential client) be assigned a unique identity number which would remain with that client throughout the system and would survive geographical moves, etc. As a further assurance that client's records will remain linked to them, copies of vital parts of client's records (such as the CHAs growth and immunization charts) could remain in the possession of the client or of another person (e.g., mother) responsible for the client's welfare.

Providers of services should also be identified in some way on client records, perhaps by title (CHA, PHN-I, etc.) and initials or names if identification numbers cannot be used.

### Information Flows

The amount and type of information which flows from one part or level of the health care system to another should be considered and planned as carefully as the content of the basic data collected. An excessive amount of information, especially if needed analyses are lacking, can impede good decision making. Therefore, "filters" should be present in order to prevent such information overload by selectively limiting information flows on the basis of decision makers' needs. Potentially useful raw or partially analyzed data which does not pass a Filter, should however, be stored and retrievable for further analysis or use. At all levels, some provision might be made for the automatic removal to other storage facilities of data for which no immediate use exists if its presence in a given storage facility hampers retrieval and use of other data and its selection, removal and storage are not prohibitively expensive. (This problem arose with older records and with records of older patients in the National Family Planning Board's computerized client and clinic information system.)

Feedback of information should occur at all levels of the health care system, both for decision making and to show contributors and gatherers of data that the information system is working and is serving them.

Periodic checks should be made of timed flows of information through the system and on the use of information within the system. Results should be used in adjusting the information system's content and flows to meet the changing needs of decision makers. Such changes, however, should be made only after due consideration of their potential benefits and of costs, including disruptive effects.

### Linkages

Examples of data which will need to be linked to one another or merged are:

District household census by CHAs

Census by PHIs

National census if done

Updates of census data (e.g., household membership; family relocation) based on verifiable information from any reliable source.

Patients services records by providers.

Retrieval and storage systems should increase the ease with which cross-referencing can be done from one part or level of the system to another.

Development of the client identification and tracking system and the possibility of linkages with other information systems outside of the health sector will make it necessary to carefully safeguard the confidentiality of information in the health care system. This is necessary both out of respect for human rights and in order to increase client and provider cooperation with the health system's information needs.

### Technologies

Information systems which rely heavily on computers frequently turn out to be more expensive to operate than had been anticipated. Such systems also depend on the availability of highly skilled computer workers for their operation and

maintenance and on skilled programmers for the development, testing and modification of the necessary computer programs; if any of these key personnel are not available when needed, the system may cease to operate or may malfunction, and corrections may not be possible or may require months of effort.

Careful consideration should be given to these problems before heavy reliance is placed on computers. Other technologies, "intermediate technologies", might prove very effective and efficient in the MOHEC information system, especially since the system will need to support decentralized decision making and health care services which will be focused on the community and family. MOHEC personnel at the central, regional and community levels express interest in the possibility of using edge-punched cards, for example, to retrieve and tabulate information needed for planning their work and for preparing reports.

Canadian (CIDA) technical assistance personnel and others working at the GOJ Central Data Processing Unit should be contacted by project workers with regard to the costs and adequacy of Jamaican computer facilities which might be available for use on this project.

### Training

Training of all personnel for the Cornwall County Health Care System should emphasize the needs for and importance and use of the project's record forms and information system. Teaching should make use of problems and case histories in order to facilitate learning to make proper use of the system. This will require co-operative efforts on the parts of the training unit, MOHEC operational personnel, and the designers of the information system.

Certain personnel (e.g., statisticians to be added at the parish level) will need to be newly trained for the project. Such training at this level is proposed for GOJ consideration and not included under this grant.

## PART III - Project Analysis

### Economic Considerations

Economic analysis of a decentralized integrated rural health care system presents certain immediate difficulties.

Standard benefit cost or cost effectiveness analysis, if attempted at this time, would yield few insights commensurate with the efforts and costs required. An attempt to demonstrate that this particular course of action represents the best allocation of scarce resources would require availability of data on costs of alternative programs which cannot be obtained at this time.

Notwithstanding such difficulties, there is some usefulness in a preliminary examination of the proposed systems' economic soundness which also points out possible directions for a full-scale economic appraisal. This is suggested on the understanding that such appraisal must take place after a reasonable period of project operation, as a part of project evaluation.

The decision by the GOJ to integrate program activities and to decentralize functions associated with program implementation limits available program options. This project aims to modify and/or improve existing program functions and to routinize them to permit replication in other counties. Assessment of the project's economic viability must therefore be done after such improvements have been installed and working so that the full economic costs and implications can be analyzed.

In their evaluation of the Nutrition Project in Hanover, Taylor and Armstrong calculated the per capita costs of the project involving nutrition alone at approximately \$2.00 and the costs for providing total health services to be in the region of \$6.00 per capita per annum (see Appendix J.) With adequate data it should be possible to quantify more completely the inputs of the integrated system. This would also permit identification of any economies of scale to be realized from integration of services and consequently from more intensive use of resources. A "before and after decentralization" comparison must include estimates of program effectiveness to the extent possible within the constraints of data availability.

### Increased Costs and Other Considerations

The GOJ's decision to decentralize is likely to lead to increased expenditures, especially in salaries, administrative support, drugs and supplies. In examining the effects of decentralization, however, care must be taken to distinguish start-up costs from recurrent costs in estimating longer term requirements. It is obvious that some costs will not be repeated if the project is replicated elsewhere, i.e., improvements in health team training, revision of information systems, etc.

The project will develop costs as related to the decentralized system so that the GOJ may use this information in decision making in the future health plans.

### Expected Benefits

(a) Greater coverage and more comprehensive services - the Cornwall County project aims to more than double the present number of people with access to basic health care (40% in 1975 to 90%). At the same time a corresponding increase in the range of services and improvement in service delivery is expected. Such an expansion is being achieved by increasing the numbers of the lowest cost members of the community health team, i.e., CHAs. This has a dual effect of minimizing increases in salary costs while at the same time implying savings by reduction in time spent on minor cases by more expensive personnel.

(b) Use of health facilities - A lessening of the strain on curative hospital facilities which are higher cost and distribution of demand throughout all levels of health facilities should result from the greater emphasis being placed on preventive outreach care and the establishment of referral systems that channel patients to appropriate facilities.

(c) Effect on productivity - The increased well-being of the rural communities is expected to have a beneficial effect on productivity. Related beneficial effects may include reduced rural to urban migration.

(d) Employment - While increases in employment and income are not principal goals of the project their importance need not be overlooked. In an area of traditionally high unemployment, (See Appendix B, Table I), the hiring of 300 additional CHAs will have a positive impact on levels of employment and distribution of income in the rural areas.

## Social Analysis

General - The population of Jamaica in 1974 was estimated at 2.0 million and by 1985 it is projected to reach 2.3 million. In 1974 it was estimated that 45% of the total population were living in urban areas. Assuming a rate of rural urban migration equal to that of 1974, the percentage of the population in urban areas is expected to reach 54% by 1985. 46% of the population were under the age of 15 years in 1974 while 48% were within the group 15 - 64 years of age, with the remaining 6% being above 65 years of age. This results in a dependency ratio of 108. Department of Statistics figures give a birth rate of 34.4 per 1000, with a death rate of 7.2 per 1000. The rate of natural increase is 27.2 per 1000.

The doctor/population ratio is approximately 2.5 per 10,000 population. The distribution of doctors however is highly skewed since approximately 80% of doctors practice in urban areas with the result that 55% of the population of Jamaica are served by 20% of the available doctors. Assessment of the adequacy of medical care in Jamaica reveals that rural hospitals are short on medical manpower and deficient in facilities. They are overburdened by having to provide primary medical care to rural populations inadequately served by satellite health centers.

National Accounting figures for 1975 show a per capita income of approximately \$820.00 U.S. but it is necessary to point out that the distribution of income is highly skewed (quite unequal). Later analyses have shown that the situation has not improved and consequently equitable income distribution is one of the main thrusts of the Government of Jamaica. (Figures obtained from Social and Economic Survey 1974 show unemployment rate of slightly over 22%).

Agriculture contributes slightly over 8% of Gross Domestic Product and can be categorized into two sections - domestic agriculture and export agriculture. The former tends to be made up of a large number of small farms which provide hardly more than a subsistence of living. When it is considered that more than 80% of all farms in Jamaica are less than five acres and in many cases five acres comprise hillside or marginal lands, an understanding of the nature and degree of rural poverty emerges. Figures from the Agricultural Planning Unit suggest that per capita income of agricultural workers is less than \$500 U.S. per annum.

Project Area - The County of Cornwall consists of the five most westerly parishes of Jamaica. Table I below provides population figures and areas of the Parishes:

<u>Name</u>	<u>Area</u>	<u>Population (1974)</u>
Trelawny	352.55	65,500
St. James	240.61	115,700
Hanover	177.08	62,900
Westmoreland	320.39	119,000
St. Elizabeth	474.44	134,900
TOTAL		497,500

Source: Demographic Statistics of Jamaica and National Planning Agency

Women of reproduction age (15 - 44) comprise 18% of the population of Cornwall, and children under 14 years of age comprise 49%. The population of mothers and children requiring health services is estimated 61% of the total county population. (333,000)

A major part of the County consists of mountainous terrain making transportation in some areas difficult and time consuming. Approximately 75% of the population live in rural areas and the majority engage in small own account farming which is generally uneconomical. Even though the importance of agriculture has declined in recent years with the growth of the tourist and manufacturing sectors, it still remains the major employer of labor.

The overall density for the county is approximately 318 persons per square mile and except for the Cockpit country and the Great Morass in Westmoreland, which are uninhabited, the rural population is distributed fairly evenly throughout the county. Rural migration rates differ between the parishes, from a loss of under 10 persons per 1000 in St. James to a loss of between 12 - 14 per 1000 in Trelawny, mainly to urban areas. <sup>1/</sup>

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<sup>1/</sup> Source: Regional plan 1974 (Ministry of Mining and Natural Resources).

The 1970 Nutrition Survey showed that 49.8% of children under 5 had nutritional deficiencies (39% Grade I, 9.4% Grade II and 1.4% Grade III). Protein-caloric malnutrition has been identified as the major cause of mortality and morbidity among young children in Jamaica. Nutritional deficiencies and anaemia among pregnant mothers have been a major cause of morbidity. The percentage coverage for pregnant women attending antenatal clinics was estimated to be about 55% and the average number of visits per woman during pregnancy averages less than two, which is far below that desirable for adequate health protection. It is also estimated that 25% of the deliveries are unattended by trained health personnel due to shortage of staff; of the remaining deliveries, over 50% take place in hospitals and 20 - 25% are conducted at home by midwives. The coverage of health care facilities for these groups requires improvement through greater outreach services.

#### Social Feasibility Considerations

The principal objective of the Cornwall County Health project is to provide a primary health care system that integrates curative and preventive aspects of medicine and is oriented to educating and serving the health needs of the communities.

During the past two years a project involving the use of Community Health Aides has been in operation on a trial basis in the County of Cornwall. Community Health Aides have actively assisted in identifying the health needs of their communities, motivated mothers to make use of services available in nutrition, family planning and child care. This project succeeded in lowering the prevalence of malnutrition and child mortality in young children under four years of age.

The CHA program has achieved a reasonable level of success in a short period of time. This success has included acceptance by a majority of households in communities served and a relatively smooth transition period of incorporation into the existing health care system. Some of the reasons that can be advanced for this success are as follows:

- (1) The CHA in most cases is recruited from the community which she serves. The aide therefore possesses from the outset a familiarity with both the area and its residents, which helps to provide her with sufficient

understanding of the community and thereby hastens her acceptance by the community.

(2) The CHA's motivation is likely to be high because being from the same socio-economic status as her client population increases her desire to solve problems with which she is able to identify.

(3) The services offered by the CHAs have long been requested by the communities themselves and the program has therefore been supportive of the community.

(4) The Community Health Aides have also been accepted by other members of the health team (e.g. DMs, public health nurses), since the aides relieve them of many time-consuming duties, i.e. attending to minor ailments, dressing wounds, screening infants and children for malnutrition, etc.

#### Social Impact on Women

It is worth noting at the outset of this section that women are employed at all administrative and professional levels including medicine. Cultural and economic constraints on employment of women are low in comparison with many other developing countries. About 65% of women country-wide are in the labor force, ranging from 50% to 70% in different parishes. <sup>1/</sup> This is doubtlessly associated with the predominant pattern of consensual union rather than marriage and with a matriarchal family structure in the rural and lower income segments of the population as men migrate more frequently than women in search of job opportunities. Unemployment of women however is significantly higher than the average. (See Table I, Appendix 3.) It is therefore critical that rural women continue to benefit both from greater employment opportunities and from the outreach services extended to them and their children.

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<sup>1/</sup> A Food and Nutrition Policy for Jamaica, National Advisory Council, June 1974.

The greatest number of employment opportunities to be created by expansion of the community health program occur at the base of the health care delivery structure, i.e., the CHAs, who return to the rural communities they are selected from after they are trained. However, by the end of this year the full complement of CHAs in Cornwall County will have been employed and trained. Additional job opportunities for women will be created during the course of this project as plans to employ and train a layer of supervisors above the CHAs are implemented. Greater employment opportunities are also opening up to qualified women in certain job categories which have been primarily filled by men, i.e. Public Health Inspectors.

DETAILED DESCRIPTION (LOGICAL FRAMEWORK)

Goal:

The goal of the GOJ is to develop a national health care delivery system integrating curative and preventative, personal and environmental health services designed to reach the rural population of Jamaica. Special target groups of this population are the most vulnerable groups of children under six and women of childbearing age (14 - 45). This longer term goal will not be achieved during life of project.

Sub-goal:

One way to reach the prime goal is to improve the health care delivery system in Cornwall County as a prototype for replication in Jamaica's other two counties. The indicators at this level will be reached by 1980.

Purpose:

In order to reach the sub and prime goals the objective of this grant project is to improve the primary health care delivery system within the county of Cornwall with emphasis on the most vulnerable groups of children under six and women of childbearing age.

Outputs:

1. Implementation of outreach services with capacity to contact 90% of households quarterly.
2. Implementation of the decentralized management, supervisory and support services of the Cornwall County health care system.
3. A functional analyses of the roles of the community health team members and further elaboration of the responsibilities of paramedical and administrative personnel responsible for community health care services.

4. A training unit established and functioning in the Cornwall County Health Office, developing and coordinating initial and in-service training of the community health team members, i.e. Medical Officers, Public Health Nurses, District Midwives, Community Health Aides, Auxiliary Nurses, Public Health Inspectors and Nurse Practitioners.

5. Trained personnel for key administrative and support staff posts in county and parishes in position and functioning (990 individuals).

6. Initial design for an improved information system encompassing client, personnel, service and cost records intended to facilitate use of program information in decision making at each level of supervision and health care.

7. CHA census completed annually in project area and results tabulated and available within three months of completion of the annual census data collection.

Inputs:

1. AID financing for technical assistance, long term participant training and commodities. (see schedule and budget)

2. GOJ financing of staff salaries, logistical support and drugs and medical supplies.

The logical framework summary chart (attached) gives the indicators, means of verification and important assumptions in measuring the goal, sub-goal, purpose in measuring and reaching the goal, purpose, outputs and inputs objectives.

PROJECT DESIGN SUMMARY  
 LOGIC MODEL WORK

Life of Project: 76 - 79  
 Total: \$ 375,000

010 (3-76) (1-78)

Project Title & Number: Primary Health Care Delivery - Cornwall County

NOTE: THIS REPORT CONTAINS INFORMATION WHICH CAN BE USED OR ABUSED TO OBTAIN INCORRECT DATA FOR THE PRESENT REPORT. IT SHOULD NOT BE RELIED UPON FOR SUBSTITUTION.

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS
<p>Program or Sector Goal: The broad objective to which this project contributes: (A-1)</p> <p>To develop a national health care delivery system integrating curative and preventive, personal and environmental health services designed to reach the rural population of Jamaica.</p> <p>Sub-Goal:</p> <p>Improved health care in Cornwall County.</p>	<p>Measures of Goal Achievement: (A-2)</p> <p><u>Sub-Goal Indicators</u></p> <ol style="list-style-type: none"> <li>1. Adequate antenatal care to 90% of pregnant women (14,000 individuals in Cornwall County)</li> <li>2. Reduced maternal mortality from 14 per 10,000 to 7 per 10,000.</li> <li>3. Adequate immunization of 50% (61,500) of the children under five years of age.</li> <li>4. Nutrition surveillance services for 90% (27,500) of children under two years of age.</li> <li>5. Adequate preventative health services to 90% (27,500) of children under two and 70% (32,750) of children between two and five years of age.</li> <li>6. Maternal morbidity and complications associated with pregnancy reduced by 50%. (hospital admissions for these reasons reduced from 2000 to 1000 annually)</li> </ol>	<p>(A-3)</p> <p>Examine MOHEC budget, organizational reports and results of functional analysis.</p>	<p>Assumptions for achieving goal targets: (A-4)</p> <ol style="list-style-type: none"> <li>1. GOJ continues to place high priority on health programs.</li> <li>2. GOJ/MOHEC continues to carry out plans to provide health care delivery systems nation-wide.</li> <li>3. 1) Target group receptive to basic health care delivered by non medical personnel.</li> <li>4. 2) Trained personnel remain in place                         <ul style="list-style-type: none"> <li>- CHA at community level</li> <li>- Administrative staff in Cornwall County.</li> </ul> </li> <li>5. 3) Related IBRD loan will supply other material and technical resources required but not funded by this project.</li> <li>6. 4) MOHEC continues to budget/allocate funds at planned levels to Cornwall County.</li> </ol>

PROJECT DESIGN SUMMARY  
LOGICAL FRAMEWORK

Life of Project: \_\_\_\_\_  
From FY \_\_\_\_\_ to FY \_\_\_\_\_  
Total U.S. Funding \_\_\_\_\_  
Date Prepared: \_\_\_\_\_

Project Title & Numb. \_\_\_\_\_

PAGE 2

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Project Purpose: (B-1)</p> <p>To improve the Cornwall County primary health care system.</p>	<p>Conditions that will indicate purpose has been achieved: End-of-Project status. (B-2)</p> <p>67,000 (80%) rural families have utilized primary health care and contact once qtr by CHA &amp; PHI (compared to 40,000 in 1975).</p> <p>2) 295,000 (70%) women childbearing age and children under 6 recd. at minimum level health care, (compared to 175,000 in 1975).</p> <p>3) Increase in staff levels over 1975 to those projected in Cornwall health plan.</p> <p>4) Data collected, analyzed and utilized in Cornwall County and made available to MOHEC for use as basis for central MOHEC decisions.</p> <p>5) Uniform method of projecting manpower needs, county level and training is responsive to these needs.</p>	<p>(B-3)</p> <p>Examine</p> <p>Vital statistics</p> <p>Surveys and census</p> <p>MOHEC program data and reports on special projects.</p> <p>Periodic outside evaluation.</p>	<p>Assumptions for achieving purpose: (B-4)</p> <p>MOHEC continues to budget/allocate funds at planned levels to Cornwall County.</p>

AID 1020-28 (1-73)  
SUPPLEMENT 1

PROJECT DESIGN SUMMARY  
LOGICAL FRAMEWORK

Life of Project:  
From FY \_\_\_\_\_ to FY \_\_\_\_\_  
Total U.S. Funding \_\_\_\_\_  
Date Prepared: \_\_\_\_\_

Project Title & Number: \_\_\_\_\_

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NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Project Outputs: (C-1)</p> <ol style="list-style-type: none"> <li>1. Implementation of outreach services with capacity to contact 90% of households quarterly.</li> <li>2. Implementation of the decentralized management, supervisory and support structure of the Cornwall County Community Health Care System.</li> <li>3. Functional analyses of the roles of community health team members and further elaboration of the responsibilities of paramedical and admin. personnel responsible for community health care services.</li> <li>4. A training unit, located in the Cornwall County health Office, developing and coordinating initial and in-service training of community health team members (i.e., Medical Officers, Public Health Nurses, District Midwives, Auxiliary Nurses, Community Health Aides, Public Health Inspectors and Nurse Practitioners).</li> </ol> <p>(con't)</p>	<p>Magnitude of Outputs: (C-2)</p> <ol style="list-style-type: none"> <li>1. New or revised: job descriptions, organization charts; diagrams and explanations of info flow and of points and patterns of decision making and control; schedules for routine events; etc.</li> <li>2. Reports presenting methods and results of functional analyses.</li> <li>3. Cornwall County Training Unit is carrying out, for the types of personnel listed, the following functions: a) estimating requirements for initial and in-service training for paramedical personnel; b) monitoring ongoing training programs serving Cornwall County; c) designing and revising training curricula; d) mounting training programs within Cornwall County, in conjunction with other training agencies and facilities or</li> </ol>	<p>(C-3)</p> <p>Periodic management reports</p> <p>Project cost accounting records</p> <p>Personnel data</p> <p>Special reports per project activity</p>	<p>Assumptions for achieving outputs: (C-4)</p> <ol style="list-style-type: none"> <li>1. MOHEC continues with plans to decentralize.</li> <li>2. GOJ will carry out non-project in-service training to up-grade existing or qualify new CHI personnel.</li> <li>3. MOHEC carries out plans to improve entire record system.</li> </ol>

PROJECT DESIGN SUMMARY  
LOGICAL FRAMEWORK

Life of Project: \_\_\_\_\_  
From FY \_\_\_\_\_ to FY \_\_\_\_\_  
Total U.S. Funding \_\_\_\_\_  
Date Prepared: \_\_\_\_\_

Project Title & Number: \_\_\_\_\_

PAGE 3

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Project Outputs: (C-1)</p> <p>5) Trained personnel for key admin. and support staff posts at county and parish health offices.</p> <p>6) Initial design for an improved information system encompassing client, personnel, service and cost records and intended to facilitate use of program information in decision making at each level of supervision and health care.</p> <p>7) Census completed annually in project area and results tabulated and available within three months of completion of annual census data collection.</p>	<p>Magnitude of Outputs: (C-2)</p> <p>(con't)</p> <p>alone; e) coordinating training programs in Cornwall County with one another and with nat'l training programs.</p> <p>4) Training completed as planned by county admin. officer, parish executive officers, parish statistical officers, pharmacy/supply officer.</p> <p>5) Reports documenting design of improved information system.</p> <p>6) Reports documenting methods and results of censuses.</p>	<p>(C-3)</p> <p>Results of functional analysis</p> <p>Assessments of training and curriculum records</p> <p>Examine census records</p>	<p>Assumptions for achieving outputs: (C-4)</p> <p>4. GOJ supplies required qualified personnel.</p>

PROJECT DESIGN SUMMARY  
LOGICAL FRAMEWORK

Life of Project:  
From FY \_\_\_\_\_ to FY \_\_\_\_\_  
Total U.S. Funding \_\_\_\_\_  
Date Prepared: \_\_\_\_\_

Project Title & Number: \_\_\_\_\_

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NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Project Inputs: (D-1)</p> <ol style="list-style-type: none"> <li>1. AID Financing Technical Assistance Commodities Participant Training</li> <li>2. GOJ financing, staff logistical support.  (see budget and schedule)</li> </ol>	<p>Implementation Target (Type and Quantity) (D-2)</p> <ol style="list-style-type: none"> <li>1. AID: \$375,000 grant over three years</li> <li>2. GOJ: \$2.4 million funds put into Corn- wall County during three years, staff all in place.</li> </ol>	<p>(D-3)</p> <ol style="list-style-type: none"> <li>1. Examine PROAGs and other AID documentation.</li> <li>2. Examine MOHEC and GOJ budgets and personnel records.</li> </ol>	<p>Assumptions for providing inputs: (D-4)</p> <ol style="list-style-type: none"> <li>1. AID funds project for three years.</li> <li>2. GOJ makes available required funding and make available necessary personnel and logistic support.</li> </ol>

PART IV - Implementation Plan

A. Analysis of the Recipient's and AID's Administrative Arrangements

1. Recipient

While the basic structure exists in Cornwall County for health care delivery systems it will be re-structured as the result of this effort. The MOHEC has committed itself to decentralize the administrative control in Cornwall County. Many of the elements already exist and are functioning albeit more or less as separate entities with little coordination among them. These units will be drawn together under the Cornwall County Health Administrator and will become a cohesive organization. Some additional administrative staff will have to be hired or transferred from other elements of the MOHEC. The recruitment and the basic training of the additional CHA staff need in the three remaining parishes is already underway. (Hanover and St. James are fully staff; Trelawny, Westmoreland and St. Elizabeth will be staffed by the end of 1976. The initiative for this endeavour came from the GOJ and they participated in-depth in the preparation of the project paper.

The GOJ's interest in the project is further evidenced by the fact that the Permanent Secretary (P.S.) of the MOHEC has appointed himself as the GOJ Project Director for both this project and the IBRD project that will be coordinated with this one; his Principal Medical Officer was, and is the project coordinator for this grant project. The MOHEC has budgeted for the necessary funds and the P.S. expects approval as the GOJ budget is finalized. The Cornwall County Health Administrator has also participated in the project design and will be the GOJ project manager during its implementation.

2. AID

No unusual administrative role for AID is expected with this project. AID disbursements for local currency and foreign exchange will be through normal AID disbursing arrangements as appropriate.

B. Implementation Plan:

Certain activities such as the re-organization of the Cornwall County health delivery systems are already underway. Upon approval of the PP, and after arrival of the primary specialist, an updated implementation plan and PPT for GOJ and USAID use will be prepared. However, in the interim the major activities to be undertaken in this project are as below:

<u>Date</u> 1976	<u>Action</u>	<u>Responsibility</u>	
		<u>AID</u>	<u>GOJ</u>
June	1 PP approved	x	
	2 Pro Ag prepared & signed	x	x
	3 PIO/T signed and recruitment starts	x	x
	4 County Health Administrator		x
	5 Personal Services Contract prepared & signed with D'Souza	x	
July	1 Creation of Training Unit		x
	2 Appointment of Training Coordinator and PHN Tutor		x
	3 Identify long term participants and prepare for assignments	x	x
	4 Implementation of new staff positions within County Health Administrative office		x
September	1 Curriculum design/Training specialist arrives	x	
	2 Contract for Functional Analyses of County Health Team	x	x
	3 Arrival of Functional Analyses consultant	x	
	4 Functional analyses starts	x	x
October	1 Arrival of Management Specialist	x	
	2 Arrival of Information Specialist	x	
	3 Perceptor/Supervisors contracted for assistance in supervising CHAs work	x	x
	4 PIO/Cs prepared	x	
	5 Development of curriculum and training courses starts	x	x
	6 CHA positions in Cornwall County filled		x

<u>Date</u> <u>1976</u>		<u>Action</u>	<u>Responsibility</u>	
			<u>AID</u>	<u>GOJ</u>
November	1	Plans for Functional Analyses study set-up completed	x	x
	2	Development of Management Systems underway	x	x
	3	Information systems study proceeds	x	x
	4	Functional Analyses work on-going and consultant departs	x	x
	5	CHA in-service training starts	x	x
	6	Perceptor/Supervisors work starts	x	x
December	1	Development of curriculum for field training of undergraduates/post graduates medical students	x	x
1977				
January	1	Information Systems consultant completes set-up of initial program and departs	x	x
	2	Development of management curriculum for PHNs and PHIs	x	x
	3	Coordination of training activities with management consultant and draw plans for on-going implementation	x	x
	4	Long term participants depart	x	x
February	1	Management consultant completes first phase work and departs	x	x
	2	Commodities received	x	
March-June	1	Training and curriculum in all areas outlined above continues	x	x
	2	Functional Analyses consultant returns and completes analyses of survey results and consultant departs	x	x
July-December	1	Joint evaluation of first year's work	x	x
	2	Implementation of recommendations as result of evaluation	x	x
	3	In-service curriculum revision proceeds	x	x

<u>Date</u> <u>1977</u>		<u>Action</u>	<u>Responsibility</u>	
			<u>AID</u>	<u>GOJ</u>
July- December	4	Curriculum for CHT reviewed and modified according results of functional analyses and evaluation	x	x
	5	Return of long term participants (September-October)		
	6	Management consultant returns	x	
	7	Information system consultant returns	x	
1978 January	1	Preliminary Economic analyses by Management consultant and Cornwall County Financial Controller	x	x
	2	Information consultant departs	x	x
	3	Data collection system functioning		x
	4	Plans for curriculum development and training courses completed	x	x
	5	Implementation of plans to train supervisors to replace interim supervisors		x
February	1	Development of management systems completed and functioning	x	x
	2	Management consultant departs	x	
	3	All training systems functioning	x	x
March	1	Curriculum/Training Specialist departs	x	
April-May	1	Training on-going		x
June	1	Second annual joint evaluation	x	x
	2	Modifications and revisions as result of evaluation undertaken	x	x

<u>Date</u> <u>1978</u>		<u>Action</u>	<u>Responsibility</u>	
			<u>AID</u>	<u>GOJ</u>
July- December	1	Cornwall County Health Administrator's office staffed and functioning		x
	2	Management consultants' visits timed to permit adjustments and follow-up as necessary	x	
	3	In-service training of CHT completed	x	x
January- June	1	Second functional analysis undertaken in 3rd quarter to measure effectiveness of training, modifications of job functions and identify continuing on new problem areas - corrective action taken	x	x
	2	Interim supervisors phase out and permanent supervisors phase in		x
	3	Third annual joint evaluation and remedial action as required	x	x

## PRIMARY CARE CURRICULUM DESIGN AND TRAINING SPECIALIST

### Scope of Work

- 1) Work with the management, information systems and functional analysis consultants and with GOJ personnel to review and revise the roles and functions of the members of the rural health care team.
- 2) Working with other members of the Cornwall County Training Unit, develop new and revised curricula and training plans for both in-service training and training of new personnel in professional schools and certificate programs.
- 3) Assist the GOJ in implementing the new and revised training programs designed under the project.
- 4) Assist GOJ co-workers in the training unit to develop the skills necessary to continue the training units functions after the cessation of major technical assistance to the unit.

### Required Background and Experience

Based on the above scope of work, and considering the project's emphasis on paramedical workers delivering integrated health services, the consultant should have experience in the development and implementation of training programs for paramedical personnel providing primary care. Such experience might have been gained in training physicians assistants, expanded role nurses, Medex, health or child health associates, assistant medical officers, etc. Work experience in health and/or educational system in developing country or similar environments is desirable. Educational backgrounds appropriate to the job would generally include training in a health field (including public health, nursing, and primary care, but probably not including medicine, due to differences in the basic training received and to cost considerations) and in curriculum development (perhaps in education, but also obtainable in some public health programs and in other interdisciplinary settings). The specific tasks to be accomplished require that selection be done on the basis of demonstrated competence to carry them out, rather than rigidly on the basis of academic background; possession of degrees, however, is an asset in gaining the confidence and acceptance of Jamaican colleagues and officials.

## INFORMATION SYSTEM CONSULTANT

### Scope of Work

- 1) Analyse the information needs of the MOHEC, especially as they relate to decision making to the management of the new health care system, and to the evaluation of that system and its components.
- 2) Coordinate AID-supported activities related to the development and improvement of the information system within the Cornwall County project with those supported or provided by other agencies, including the U.S. Bureau of the Census and the IBRD.
- 3) Work with other consultants and GOJ personnel to develop, test and implement a decision-oriented information system for the MOHEC within the Cornwall County health project. The system developed should also provide information needed for the evaluation of the health care system.
- 4) Help MOHEC personnel to develop and improve the skills and knowledge which they will need to manage the information systems after the initial three years of the project and to make appropriate modifications of the systems as required by changing resources and information needs.

### Required Background and Experience

Based on the above scope of work, the consultant should have demonstrated ability in the analysis of information needs and use, diagnosis of problems related to information use and flow, and in the design and implementation of management information systems, preferably in the health field. Experience in less developed countries is desirable. Experience in working with information systems which do not rely heavily on the use of computers and which serve decentralized multilevel management systems is very desirable. Appropriate training at the master's or doctoral level might have been obtained in such fields as management, communication, health records, public health, public administration, or systems analysis; demonstrated ability and experience in similar jobs should weight heavily in selection.

## MANAGEMENT SYSTEMS CONSULTANT

### Scope of Work

- 1) Work with the primary curriculum design, information system and functional analysis consultants and with GOJ personnel to review and revise the roles and functions of the members of the health care team.
- 2) Work with other consultants and GOJ personnel to review and revise personnel policies (salaries, grades, promotion, etc.) of the MOHEC in view of the needs of the revised and decentralized health care system.
- 3) Work with the information system consultant and other consultants and GOJ personnel on the revision of the MOHEC information system as it pertains to the needs of the MOHEC and of the new health care system for information.
- 4) Work with other consultants and GOJ personnel to design and implement the decentralized MOHEC systems for drug and supply distribution.
- 5) Assist the Project Director and other GOJ personnel in the coordination of activities in the overall Cornwall County health project.
- 6) Assist the Project Director and other GOJ personnel in assuring that at the end of the first three years of project implementation the Cornwall County health care system's management personnel have the skills required to continue to operate and adjust the management systems after the cessation of major technical assistance to management.

### Required Background and Experience

Based on the above scope of work and on consideration of the nature of the project and its administrative environment, the consultant should have demonstrated ability and consultative experience in organizational development in the health sector, preferably in the consolidation/integration of management systems. Work experience in health care systems in developing countries or in similar environments is highly desirable. Educational backgrounds suitable for the job include management, health services administration, medical

care administration (including hospital administration if a broad base of experience in the broader field of health services administration is also present): such training might have been obtained in schools of management, public health, public administration, or hospital administration, and should be at the master's or doctoral level in order to facilitate acceptance of the consultant by Jamaican colleagues in the MOHEC.

## FUNCTIONAL ANALYSIS CONSULTANT

### Scope of Work

- 1) Work with the primary care curriculum design management and information systems consultants and with GOJ personnel to review and revise the roles and functions of the members of the health care team.
- 2) Develop the study design and research instruments for the functional analyses of work activities carried out by rural health team members, field test the instruments, assist in the selection of the field supervisor and field observers, train the supervisor and observers, and direct the gathering and editing of data in the field.
- 3) Edit, analyze and interpret field data for the first functional analysis, and guide MOHEC personnel responsible for these activities in subsequent functional analyses.
- 4) Communicate methods and results of the functional analysis to other project personnel and other GOJ personnel as required in order to accomplish the purposes of the overall Cornwall County Project.
- 5) Train MOHEC personnel in the techniques of functional analysis in order to enable them to continue to carry out such studies after the initial three years of the project.
- 6) Write and submit to the MOHEC (Project Director) and to AID reports on progress in functional analysis studies and a final report on each functional analysis carried out under the project.

Required Background and Experience

Based on the above scope of work, the functional analysis consultant should be absolutely required to have experience in the design and implementation of functional analysis studies preferably overseas in developing countries or in similar environments. Educational background appropriate to the job and to the need to relate to high level MOHEC personnel would probably consist of training at the master's degree level or beyond in social sciences (e.g., sociology, psychology) or management, with a research emphasis in either case.

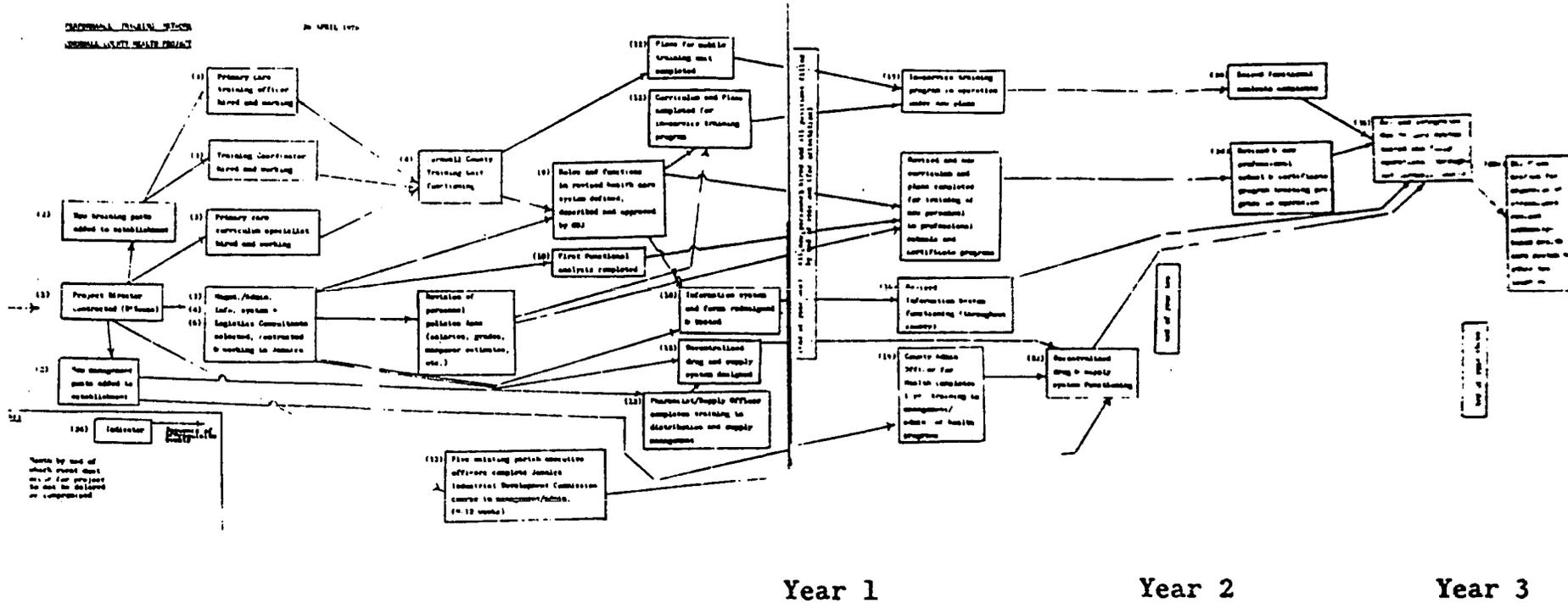
AID inputs by year of expenditure

(\$U. S.)

<u>Line item</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>
Training Unit Cornwall City	65,000	32,500	
Functional Analysis	34,650	-	34,650
Information Systems	14,360	14,360	14,360
Management Systems	24,230	24,230	24,380
Long term Training	16,000	-	-
Interim Supervisors	7,500	7,500	7,500
Project Evaluation	4,960	4,960	4,960
Supplies & Equipment	-	5,000	-
Contingency	11,300	11,300	11,300
Total	<u>\$ 178,000</u>	<u>\$ 99,850</u>	<u>\$ 97,150</u>
		Grand Total	\$375,000

INDUSTRIAL HEALTH PROJECT  
INDUSTRIAL HEALTH PROJECT

20 APRIL 1976



Note: by end of which most staff are in place for project to not be delayed or compromised

#### PART IV - Project Evaluation

The GOJ, which plans to commit a major portion of its health care resources to rural health care in the coming years, wants more information on the effectiveness and costs of the integrated program which it is implementing throughout Cornwall County and will probably implement, after the approach has been more fully developed and systematized, throughout the country. In view of the increasing recognition of the importance of effective low cost systems for the delivery of integrated health care services, especially in underserved rural areas, other countries and agencies (such as USAID) are also seeking such basic information. The likelihood that usable evaluative information generated by the project will be utilized in decision making by the GOJ, AID and others justifies the use of a portion of the project's resources to gather such information. Evaluation should view the project as a whole, a community based system intended to improve the health and lives of community members. Within that context, three areas of evaluative emphasis arise:

- a) Costs of the system
- b) Functioning of the system (flows and relationships within the system and between the system and its environment)
- c) Effectiveness of the system.

Costs of implementing and operating the system in Cornwall County and estimated costs of installing and operating it throughout Jamaica will be documented and reported as part of the project, as discussed in the section on cost analyses.

The project's purposes include improvements in the organization and functioning of the new health care system before and during its expansion throughout Cornwall County. Indicators of such changes and means of verifying the achievement of targets are summarized in the logical framework and discussed in both the logical framework narrative and the sections on management systems.

Effectiveness of the system will be assessed in terms of measurements of the delivery and distribution of services (e.g., immunizations, home visits, nutrition screening, and food distribution) and of changes in simple indicators of community health which are considered to be both susceptible to significant change during the first 12 to 24 months of system operations in a community and measurable with sufficient reliability to allow adequate estimation of the amount of change occurring during that time.

Proposed indicators for the latter include but not limited to the following:

- a) Infant mortality
- b) Mortality in children aged 12 months to 6 years
- c) Prevalence of malnutrition in infants and in children under 6 years
- d) Incidence of malnutrition in infants and in children under 6 years
- e) Incidence of diarrhea in infants and in children under 6 years.

The project will not attempt to measure or attempt to determine the effects on health indicators of variables outside of the health service system (such as changes in income, transportation patterns, etc.); this is due to the types of decisions to be made based on the evaluation results (and to decisions already made in Jamaica), to the ambiguities which are not resolved by complex analyses, to cost considerations, and to the difficulties of collecting the non-health data which would be needed.

Data relevant to the above indicators are already being collected, along with much other information, by the CHA's and other members of the health team. The project will improve information use within the health services system, basing suggested changes on the MOHEC's needs for information

---

1/ Maternal mortality and incidence of toxemia might be suggested as indicators, but rates of maternal mortality are so low that a very large sample would be needed to measure change, and both indicators are also relatively hard to change. Maternal nutrition is also harder to measure than the nutritional status of a young child.

for decision making and systems management. Use in project evaluation of information collected by MOHEC health workers in Cornwall County as part of their normal activities will demonstrate appropriate and effective information use to MOHEC personnel at all levels and encourage ongoing evaluation as a MOHEC endeavor. Special surveys may be carried out in order to obtain needed information not routinely gathered by the MOHEC. Such surveys could also serve as cross-checks on routinely gathered information. One set of special studies which will definitely be done, as discussed in another section, concerns functional analyses of the work of health team members. Such studies will initially serve to indicate what activities workers are actually carrying out at the outset of the project, thereby providing baseline and diagnostic information. Repeated later in the initial three-year period, they will indicate the extent and type of changes in the use of workers' time. If they are again repeated several years after the other USAID-funded project activities have been completed, they will provide data on the continuation of such changes. If the functional analyses prove useful to MOHEC managers and planners, it would be relatively easy for them to use this powerful tool in other areas during and after the project.

"Outside" evaluation visits, as described in the Implementation Plan, will be a key part of the project evaluation. Indicators and means of verification to be used in project evaluation are specified in the Logical Framework. The Planned Performance Tracking Network will provide a means of checking timely achievement of critical project events.

The chart below shows expected sources of data to be used in measuring changes in the indicators listed above for measurement of changes in health in the communities of Cornwall County during the project.

Data Sources

Indicators	CHA Household Visit Records and Reports	Health Inspector Records and Reports	Health Center Records	Hospital records - Inpatient	Hospital Records - Outpatient	Vital Events Registry	Special Studies	
							Functional Analysis	Other
Infant Mortality	x	x		x		x		
Mortality Ages 1-5	x	x		x		x		
Infant and Young Child Malnutrition	x	x	x	x	x	x		x
Infant and Young Child Diarrhea	x	x	x	x	x			x

TABLE I - FINANCIAL PLAN

(U.S. \$ 000)

Use	AID (FX)	GOJ (LC)	TOTAL
<u>Technical Assistance</u>			
Long Term	98		98
Short Term	197		197
Participant Training	16		16
Commodities	5		5
Evaluation	15		15
Contingency	44		44
Salaries		2300 *	2300
Operating Expense		200	200
Drugs & Medical		100	100
	---	---	---
Total	375	2600	2975

\* The GOJ is planning the approximate \$105,000 as shown in Schedule I (attached) for direct management and training salaries, while the remaining 2.3 million is for salaries for the members of the Cornwall County Community Health Team.

\* The IBRD Health Loan is for \$6.8 million of which 80% or \$5.4 million is for Cornwall County.

TABLE 2 - Project Cost by Output  
(U.S. \$ 000)

	<u>AID</u>
Curriculum Dev/Training	102
Information System	105
Management	106
Functional Analyses	62
	<hr/>
Total	375

## APPENDICES

- A. Letter from Charles Campbell, Director, USAID, to Mr. Glen Vincent, Permanent Secretary, MOHEC.
- B. Table 1 - Unemployment in Cornwall County, April and October 1973.  
  
Table 2 - Demographic Data for Parishes of Cornwall County 1974.  
  
Table 3 - Management Structure - County Health Administration Office, Cornwall County.
- C. Community Health Aide Job Description.
- D. Objectives of the Community Health Aid Training Program.
- E. Distribution of Services Among Various Types of Facilities.
- F. Summary - Resources Needed.
- G. Staffing Plan, Cornwall County (also see page 8 of Appendix "K")
- H. List of Contacts.
- I. Bibliography.
- J. Taylor, Carl E. and Armstrong, Robert J.  
  
Report on Consultation - Hanover Parish Project - Jamaica January 1976.
- K. D'Souza, A. J., County of Cornwall Community Health Project (Undated).
- L. I.B.R.D. Health Loan Appraisal Report.
- M. Sievwright, Mary et al  
"Nurse Practitioner Program", U.W.I.
- N. The Development of Community Medicine at the Cornwall Regional Hospital, A. J. D'Souza.
- O. Draft Project Description of Project Agreement.

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March 9, 1976

Mr. Glen Vincent  
Permanent Secretary  
Ministry of Health & Environmental Control  
21 Slibe Pen Road  
Kingston

Dear Mr. Vincent:

Confirming our conversation during a meeting in your office on March 9.

In a meeting earlier in the day with members of your ministry and a representative of UWI the following was agreed upon:

1. Proceed with the drafting of the Project Paper.
2. Request assistance from AID/Washington for expert assistance of a health planner and a project design specialist. Additionally we will request the services of Dr. Carl Taylor if he is available.
3. The initial drafting to be done in Cornwall.
4. Preparation of the project paper will involve personnel to be selected from MOH and UWI.
5. The project will essentially cover manpower training and the evaluation and developing of improved health care delivery from existing systems. Other elements may be added upon mutual agreement.

The proposed project will have the following goals at the end of project:

Mr. Vincent

-2-

March 9, 1976

1. Increase coverage of women and young children from 50% to 90%.
2. Improved health care delivery services in the rural areas of Jamaica.
3. Established training system for health workers.
4. Routinize community health care system at local levels.
5. Implementation of a decentralized health system for improved administration of health care services.
6. This project will compliment the IBRD project.

It is our understanding that you concur with the above approach and have accordingly cabled Washington substance of the above and have asked that the consultants arrive no later than March 22. We will keep you advised of developments as they occur.

Sincerely yours,

Charles P. Campbell  
AID Affairs Officer

TABLE I

APPENDIX B

CORNWALL COUNTY UNEMPLOYMENT - APRIL AND OCTOBER, 1973

<u>PARISH</u>	<u>OCTOBER 1973</u>			<u>APRIL 1973</u>			<u>WOMEN</u>	<u>OCTOBER 1973</u>		
	<u>LABOUR FORCE</u>	<u>UNEMPLOYED</u>	<u>%</u>	<u>LABOUR FORCE</u>	<u>UNEMPLOYED</u>	<u>%</u>	<u>LABOUR FORCE</u>	<u>UNEMPLOYED</u>	<u>%</u>	
TRELAWNY	19000	3400	18	24900	2800	11	6300	2600	41	
ST. JAMES	44500	14300	32	47200	13900	29	2010	4600	43	
HANOVER	23000	7200	31	22900	4700	21	10400	5000	48	
WESTMORELAND	45700	13200	29	43600	10800	25	15700	8500	45	
ST. ELIZABETH	54900	10600	19	58900	8700	15	22500	6600	29	

SOURCE: THE LABOUR FORCE: DEPT. OF STATISTICS 1973

TABLE 2

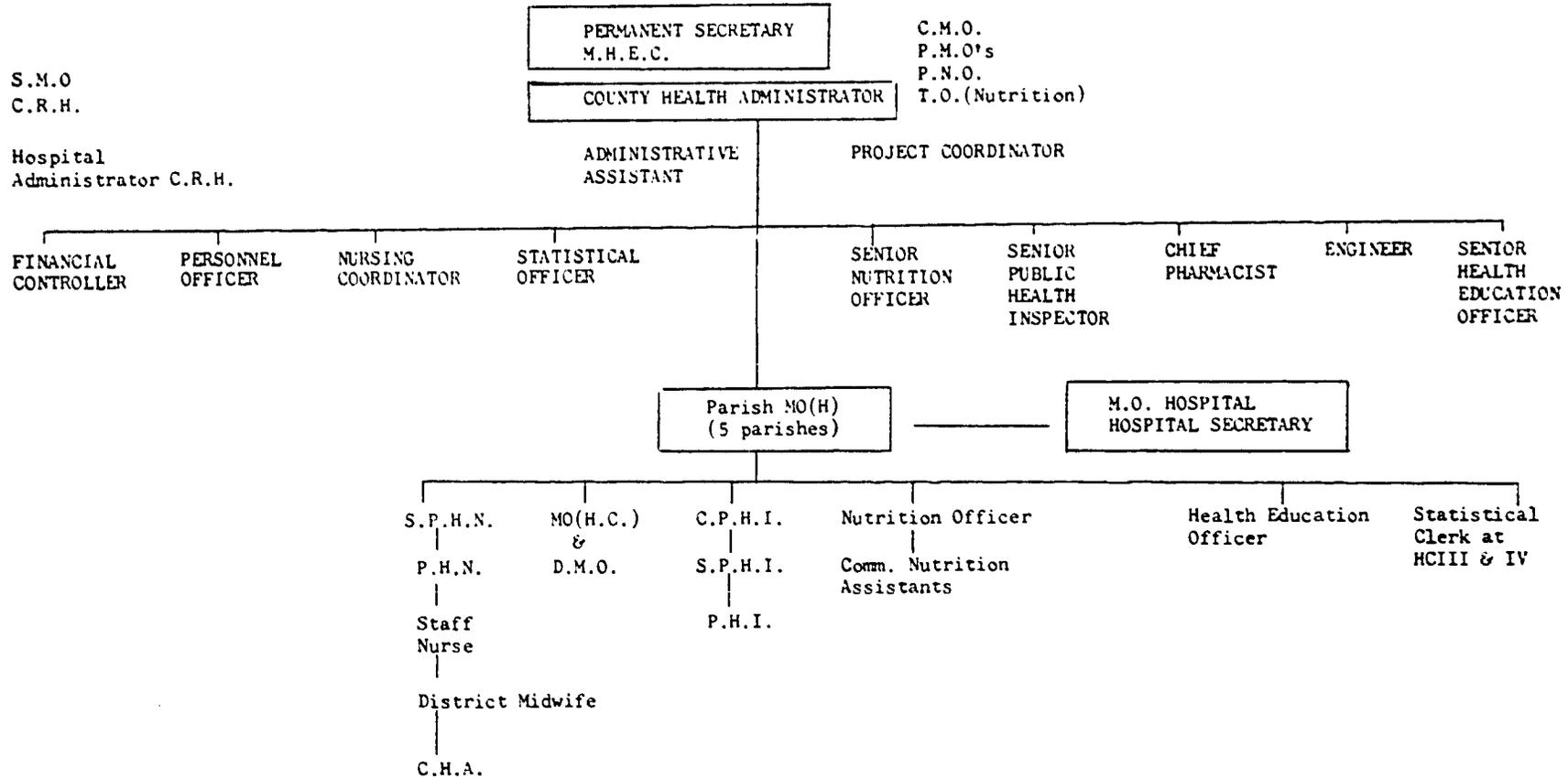
APPENDIX B

DEMOGRAPHIC DATA FOR PARISHES OF CORNWALL COUNTY 1974

	(PER 1000 Pop.)		(PER 1000 LIVE BIRTHS)	
	<u>BIRTH RATE</u>	<u>DEATH RATE</u>	<u>INFANT DEATH</u>	<u>STILL BIRTH</u>
<u>JAMAICA</u>	<u>34.4</u>	<u>7.7</u>	<u>32.2</u>	<u>5.2</u>
TRELAWNY	30.6	7.4	34.0	9.6
ST. JAMES	35.1	7.3	28.3	3.4
HANOVER	33.2	8.2	40.1	5.1
WESTMORELAND	29.8	7.6	31.4	3.9
ST. ELIZABETH	30.8	8.0	38.4	6.6

SOURCE: REGISTRAR GENERAL'S DEPT.

MANAGEMENT STRUCTURE - COUNTY HEALTH ADMINISTRATOR'S OFFICE - CORNWALL COUNTY.



## Appendix C

COMMUNITY HEALTH AIDEJOB DESCRIPTION

The Community Health Aide is a member of the Health Team who has had training to work with families in the Community and to be able to identify problems and bring them to the attention of trained personnel.

She is directly responsible to the Public Health Nurse and is expected to work co-operatively with all members of the Health Team e.g. Staff Nurses at Health Centres, Public Health Inspectors, District Midwives, Family Planning Officers, and other Social Agencies.

The Community Health Aide is required to undertake the following duties:-

1. Teach simple health facts to the people of the community she serves.
2. Give advice on nutrition with emphasis on "food values" and encourage householders to grow nourishing foods in the kitchen gardens. Simple demonstrations should be done where possible to support teaching.
3. Render first aid treatment to members of the community and refer such persons for early medical care.
4. Encourage and advise parents and guardians to have their children completely immunized against infectious diseases.
5. Encourage the regular attendance of infants to the Child Welfare Clinic from an early age.
6. Motivate and refer new clients to Family Planning Clinics, encourage delinquents to attend regularly and stress the importance of using the family planning method as advised at the clinic.
7. Give simple nursing care to those individuals where this type of care is indicated e.g. bed sores (treatment of bed sores), bed soiling etc.
8. Assist Public Health Nurses and District Midwives in ensuring that all expectant mothers in the area receive adequate pre-natal and post-natal care.
9. Assist the Public Health Nurse at clinics, mass immunization programmes, schools, and any other duty as may be found necessary.
10. Advise all known diabetics and hypertensive cases of the importance of taking their treatment regularly and keeping their medical appointments.
11. Advise householders of the importance of keeping their premises clean and getting rid of insects e.g. flies, roaches, etc.

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-2-

12. Inform the community of all the services available by the Ministry of Health and Environmental Control.
13. Keep the appropriate records as is necessary.

"There is a great responsibility placed on the Community Health Aide to be a good representative of the Health Team. She should earn the respect of the community as one who does not betray confidence."

OBJECTIVES OF THE COMMUNITY AIDE TRAINING PROGRAM

At the time of graduation the CHA will be expected to demonstrate the knowledge and skills necessary to perform the following functions:

1. Provide Personal Health Services

- a. Render first aid treatment to members of the community and refer such persons for early medical care.
- b. Manage common episodic problems, e.g. colds, coughs, skin disorders, gastroenteritis, according to written protocols.
- c. Diagnose malnutrition by application of anthropometric indices, and, according to written protocol, treat the deficient child by education and demonstration at home. Provide food supplements to mothers of malnourished children where required, (e.g. skimmed milk, C.S.M., iron).
- d. Give simple nursing care to those individual where this type of care is indicated, e.g. bed baths, treatment of bed sores, bedmaking.
- e. Monitor (e.g. blood pressure, dipstick urinalysis, diabetes and persons with known hypertension and advise them of the importance of taking their treatments regularly and keeping their medical appointments.
- f. Relieve symptoms of rheumatoid arthritis according to written protocol.
- g. Dispense medications in clinics, under supervision, e.g. iron, expectorant, anti-diarrheal agents, worm treatments.

2. Promote Good Health Behavior

a. Promote good nutrition

- 1) Encourage householders by teaching and simple demonstration to grow nourishing foods in kitchen gardens.
- 2) Distribute seeds for use in local gardens.
- 3) Encourage breast feeding of infants.
- 4) Counsel mothers in the selection of foods for their children; emphasize food values.
- 5) Advise persons at high nutritional risk, e.g. pregnant women, the elderly, parents of infants 6 months to 3 years.

b. Provide guidance on proper hygiene and sanitation

- 1) Advise householders of the importance of keeping their premises clean and getting rid of insects, e.g. Flies, roaches.
- 2) Instruct teenagers and school age children in personal hygiene

c. Advise on family planning

- 1) Answer basic questions on different methods of birth control.
- 2) Motivate and refer to Family Planning Clinics.
- 3) Stress the importance of using the family planning method advised at the clinic.
- 4) Resupply the householder with the family planning method selected at clinic, according to written protocol.

- 5) Distribute contraceptives not requiring medical supervision (e.g., condoms), to those requesting them.
- d. Provide basic information on venereal disease and stress the importance of control and clinic treatment.
- e. Encourage attendance at clinics and mass immunization programs.
  - 1) Encourage and advise parents and guardians to have their children completely immunized against infectious diseases.
  - 2) Encourage regular attendance of infants to the Child Welfare Clinics from an early age.
  - 3) Encourage all expectant mothers to receive adequate pre-natal and post-natal care at clinic.
  - 4) Encourage regular attendance of clients to Family Planning clinics.

3. Identify and Monitor Individual Health Status

- a. Assess growth and development using specific testing procedures, e.g. weigh child and plot Gomez chart.
- b. Screen for early casefinding and prevention of illness, e.g. visual screening (Snellen chart).
- c. Perform certain tasks necessary to assist Public Health Nurse or physician to determine the nature of the problem.
  - 1) Take temperature
  - 2) Test Urine (dipstick)
  - 3) Measure blood pressure
  - 4) Ova and parasites
  - 5) Hemoglobin and hematocrit (if system simple)

d. Perform certain family planning tasks including:

1. Collect data on social, obstetric, gynecological and contraceptive experience of new clients.
2. Collect data on contraceptive or medical problems from returning clients.
3. Prepare clinic clients for physical examination, including examinations of breasts, abdomen, pelvis and genitalia including cervix.

4. Promote and work as a Member of the Health Care Team

- a) Maintain contact with the household for the members of the health team.
- b) Work cooperatively with all members of the health team, including Public Health Nurses, Staff Nurses at Health Centres, Assistant Nurses, District Midwives, Public Health Inspectors, Family Planning Officers, Nutritional Officers, Nurse Practitioners, Physicians and other staff of health and social agencies.
- c) Assist at clinics, mass immunization programmes, schools and any other duty as may be found necessary.
  - 1) Motivate householders to attend clinics, programmes, etc.
  - 2) Crowd control and patient flow in clinics.
  - 3) Keep records of persons attending clinics, programmes, etc.
  - 4) Visit persons not keeping appointments and encourage attendance.

d) Notify Public Health Inspectors about unsatisfactory sanitary conditions in the community.

e) Inform the community of all the services offered by the Ministry of Health and Environmental Control.

5. Assist in Planning for Health Care Services in Cornwall County

a) Take annual household census of community

b) Keep appropriate records as is necessary, e.g. household visits and daily activities.

Distribution of Services Among Various Types of Facilities

It has become traditional to view health services systems as idealized pyramidal structures, with broad bases representing general or basic services and simple facilities at the community or family level and, with fewer but more specialized (and expensive) facilities in each succeeding level and very specialized in-patient hospital services at the top. Such Pyramidal diagrams tend to over emphasize the hierarchical structure imposed on health services by hospital oriented personnel who dominated thinking and planning in health services. Even though the base of the pyramid was in the community, the lower layers sometimes seemed to have been constructed primarily in order to support the upper ones.

The emerging community focus of health services planning, as exemplified by the Cornwall County project, emphasizes the provision of basic services which are convenient and acceptable to community members in need of them and technically adequate to accomplish health care (and community development) objectives with available resources.

Considerations of cost-effectiveness and benefit distribution lead directly to an emphasis on prevention and health promotion and on widely available basic health services, all reaching the community through integrated systems making extensive use of paramedical workers. Viewed in this perspective, family and community level health services using paramedical workers should deal adequately with the vast majority of health care needs, while other facilities, more costly and less readily

accessible deal only with unusual and unusually complicated problems.

Attempts to diagram health services systems are complicated when the actual behaviour of the consumers and potential consumer's service are considered. For example a family living very near a hospital and relatively far from the nearest facility intended by planners to meet that family's basic care needs, is very likely to seek basic care at the hospital, even if the hospital's facilities, personnel and services are not designed to provide them. The implications of these consumer choices for the health services systems are all the more important when, as is usually the case, facilities for complex services are located in areas of high population density; under such circumstances a high proportion of the population finds that the health facility closest to their homes is a hospital.

Families seeking basic care in facilities intended for complex care are sometimes rejected by the facility; even if the rejection takes the form of referral to a more appropriate facility, they may never receive needed care. If they are accepted for basic care at the complex facility, on the other hand, they may receive unneeded services (e.g. "routine" laboratory tests), the unit costs of the needed care they receive may be much higher than they would have been at a simpler facility and the scarce resources which they use (e.g. physician time) are unavailable for the resolution of

the more complex problems for which they are needed and intended. Such problems are all obstacles to the attainment of the GOJ health care system's distributive, quantitative and qualitative objectives; they warrant serious attention, particularly now, when construction of new facilities and realignment of the functions of health facilities and health workers present opportunities for guided change. One possibility, which has been successful elsewhere, would be to provide basic services to those who seek them in facilities for complex care at contained or contiguous facilities designed to provide basic care, similar in staffing patterns and in function to the other physically separate basic care facilities. Decisions in this area need to consider two cost reduction principles which counterbalance one another here;

(a) The principle of delegation of functions to the least costly person or facility capable of adequately carrying them out, and (b) the principle of eliminating duplication of functions.

Consideration of the types and complexity of services to be provided by the various types of facilities in the Cornwall County Region indicates that a spectrum of services exists and that the various facilities and their personnel are intended to cover overlapping "bands" of that spectrum:

"Basic care"

"Intermediate Care"

"Complex Care"

(Promotion, simple )  
(preventive and very )  
(simple curative )

(Curative and )  
(complex preven- )  
(tive )

(Complex cura- )  
(tive and very )  
(complex pre- )  
(ventive )

BASIC

COMPLEX

\*

Health Center I (35)

(Referrals)

\*

Health Center II (31)

\*

Health Center III (16)

(Referrals)

\*

Health Center IV (5)

\*

Hospital General Outpatient Clinics (5)

\*

Hospital Specialty Clinics (5)

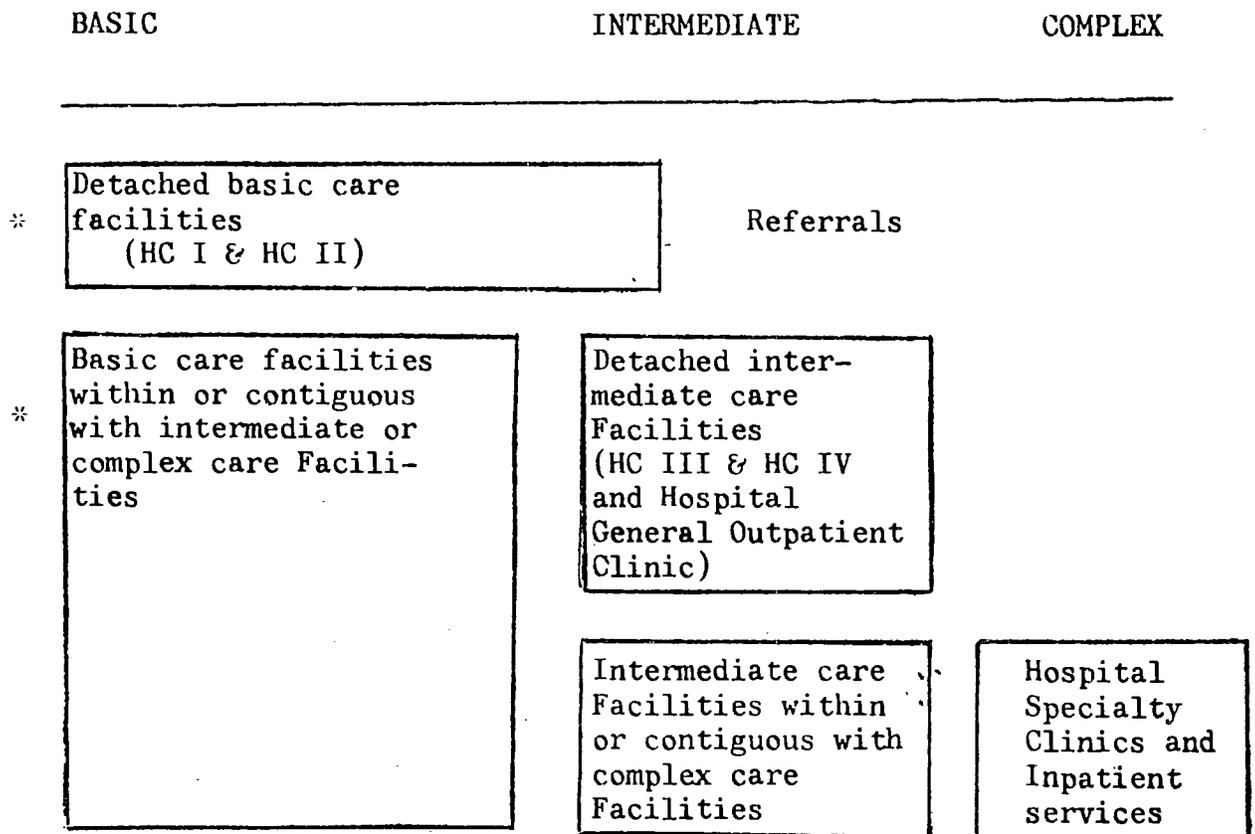
\*

Hospital Inpatient Services (5)

\* Clients entering overall system  
(initially or for new or recurrent  
problems)

The heavy rectangles indicate blocks of facilities which have great overlap in their functions. A rational pattern of referrals, as indicated would produce patient flows between, rather than within these blocks.

Attempts of patients to directly enter parts of the system intended to handle complexity than their problems warrant produce the problems and inefficiencies discussed earlier in this section. The solution mentioned as part of that discussion would alter the diagram as follows and minimize such inappropriate entries.



\* Entry points for nonemergencies (and most emergencies)

An alternative solution to the problems discussed would be to increase the "range" of services offered by some or all of the facilities through further use of and delegation of functions to paramedical personnel, which should decrease the unit costs of services, free more highly trained personnel to function more appropriately, decrease the number of referrals needed, and probably increase patient satisfaction. Paramedical personnel could work closely with their supervisors.

	BASIC	INTERMEDIATE	COMPLEX
= Paramedical	Detached Basic Care Facilities		
= Highly trained medical professionals	Basic care Facilities Functions of Intermediate Facilities		Intermediate Intermediate Facilities
			Complex Care Facilities

## SUMMARY

Resources Needed

The following table shows the types of new resources which will be needed to implement the project, along with expected sources of support for each type.

<u>Type of Resource</u>	<u>Expected Support</u>
Management, Salaries & Operating Costs	GOJ
Technical Assistance in Training	AID (Title X & Health)
Technical Assistance in Management	AID (Health)
Health Information System	AID (Title X & Health)
Long Term Training in Management/Information System	AID (Health)
Planning & Evaluation (Central MOHEC)	IBRD/AID (Title X)
Functional Analysis of Health Team	AID (Health)
Educational Materials	IBRD
Supplies	GOJ
Vehicles and Maintenance Training	IBRD
Communication Equipment & Technical Assistance	IBRD
Construction & Equipment of Facilities	IBRD

Purposes of the AID Grant

The AID grant to support the Cornwall County Project will provide technical assistance for the improvement of training (in-service and initial) and of management and information

systems. Limited funds will also be allocated for project management costs incurred in project development.

Phasing - Time Schedule

The AID Grant will provide funds to be used during a three year period, divided into three approximately one-year phases with the following primary emphases in each phase:

- |             |   |
|-------------|---|
| Phase One   | Development of training plans and curricula.<br><br>Development of plans for management improvements.<br><br>Functional Analysis of existing team roles.  |
| Phase Two   | Implementation of new and revised in-service training programs and of improved management systems.<br><br>Continued development of revised curricula.   |
| Phase Three | Implementation of new curricula in educational institutions.<br><br>Operation and evaluation of county health system with improved management systems and personnel trained in revised educational programs.<br><br>Functional analysis of expanded team roles. |

Added details of the implementation schedule are presented in the chart(s) on the next page(s) [PPTN and GANT Chart, if available, to be attached].

STAFFING PLAN - CORNWALL COUNTY

COUNTY LEVEL

COUNTY HEALTH ADMINISTRATOR

---

HC IV PARISH LEVEL

---

HC III

1/24,000

---

HC II

1/12,000

---

HC I

1/4,000

---

CHA

6/5,000

COUNTY NURSE SUPERVISOR

---

SPHN

SPHN

---

PHN

CHA SUPERVISOR

---

CHA

MW

MW

MW

LIST OF CONTACTS

G.O.J.

(KINGSTON)

Mr. Glen Vincent, Permanent Secretary, Ministry of Health and Environmental Control

Dr. Wynante Patterson, Senior Medical Officer for Health, Nutrition and Family Planning, Ministry of Health and Environmental Control

Dr. Kenneth Standard, Department of Social and Preventive Medicine, University of the West Indies

Mrs. Olive Enniver, Department of Social and Preventive Medicine, University of the West Indies

Dr. K. Laure Padoner, Dept. of Social and Preventive Medicine, University of the West Indies

Mrs. Norma Dumont, Public Health Nurse, Office of Health Education, Ministry of Health and Environmental Control

Mrs. Daisy Goldson, Acting Director, Office of Health Education, Ministry of Health and Environmental Control

Mrs. Sylvia Goldson, Statistician, National Family Planning Board

Dr. Mary Sievwright, Director, Advanced Nursing Unit, University of the West Indies

Mrs. Syringa Marshall-Burnett, Tutor, Advanced Nursing Unit, University of the West Indies

Mrs. Agnes Nicholas, Tutor, Advanced Nursing Unit, University of the West Indies

Mr. Horace A. Tomlinson, Deputy Financial Secretary, Ministry of Finance

(MONTEGO BAY)

Dr. Anthony J. D'Souza, Senior Medical Officer, Cornwall County and Project Director, Cornwall County

Mr. V. E. Gordon, Senior Public Health Inspector  
Grade I, Hanover Public Health Office

Mrs. King, Senior Public Health Nurse, St. James  
Public Health Office

FIELD INTERVIEWS

(HANOVER)

Nurse Harvey, District Midwife, Chester Castle

Mr. Campbell, Public Health Inspector

Mrs. E. Gonzen, Nutrition Officer

(ST. JAMES)

Mrs. Desmond Clark, Public Health Inspector

Mr. Milton Hall, Public Health Inspector

Mr. F. M. Rochester, Chief Public Health Inspector, Grade I

In addition, a number of on the job interviews were conducted in the field with other members of the Community Health Team, including a number of CHAs.

USAID

Mr. Frank Campbell, General Development Officer

Mr. Charles Campbell, Director

Mr. Nick Mariani, Program Officer

I.B.R.D.

Dr. Ronganathan, Population Programs Department

BIBLIOGRAPHY

1. Report on Consultation - Hanover Parish  
Project Jamaica, January 1976  
Carl E. Taylor and Robert J. Armstrong
2. Community Health Project - County of  
Cornwall - A. J. D'Souza M.D. (undated)
3. I.B.R.D. Health Loan Appraisal Report
4. Nurse Practitioner Program -  
Mary Sievwright et al, U.W.I.
5. The Development of Community Medicine  
at the Cornwall Regional Hospital -  
A. J. D'Souza, M.D.

DRAFT PROJECT DESCRIPTION FOR PROJECT AGREEMENT

I. Project Description

It is the purpose of this project to assist the Cornwall County Health Administrative Office to decentralize the primary health care delivery system, improve management, curriculum and training of health care providers and support services.

II. Objectives

- a) An improved and routinized training system.
- b) Training unit established in Cornwall County Health Administrative Office.
- c) Improved and decentralized health management systems in Cornwall County.
- d) Improved data collection system.
- e) Continuing functional analysis of training and work assignments of CHAs, PHNs and PHIs.

III. Project Components

AID

- 46 man months of U. S. technical assistance in various fields of health care.
- 36 man months of support for Cornwall County project director.
- 27 man months of in-country technical assistance to assist in surveys and as interim supervisors.
- 2 persons to receive long term training in health administration and statistics.
- 4 man weeks for evaluation.
- Sufficient commodities and equipment to help equip training classrooms (training aids) and related equipment.

GOJ

- Salaries for necessary staff to meet objectives.
- Administrative and operating costs.
- Necessary logistical support.
- Training facilities.
- Training coordinator.
- PHN training tutor.
- Interim supervisors.

IV. Implementation

The project will be implemented by the Cornwall County Health Administrative Office/MOHEC. Technical assistance will be provided through one or more AID contracts with appropriate individuals and/or institutions with demonstrated capability in primary health care delivery. The contractor (s) will attempt to develop the capacity and expertise of the Cornwall County Health Administrative Office (CCHAO) and Training Unit by providing operational guidance and on-the-job training to MOHEC health workers. Personnel selected for training will be personnel assigned to the CCHAD.

Training curriculum and training courses will be developed and implemented, and required training of personnel involved in the system undertaken. Improved management and information collection systems will be devised and implemented.

V. Evaluation

In the implementation plan joint evaluations are scheduled annually. The 1977 evaluation will provide AID and GOJ project managers with an indication as to the direction and progress of the project and recommendations for revised project outputs and other remedial action, if

necessary. Subsequent evaluations will continue to indicate progress or lack of it, and recommend corrective action, if necessary and determine if there is any basis to continue or to formally plan project's scheduled termination beyond the original three-year plan.

An important element to these evaluations will be the availability of data collected in the implementation of the project under the improved information systems segment.

## VI. Financial Contributions

### U. S. Contribution

AID agrees to obligate from FY 76 funds an amount not to exceed \$175,000 for the following purposes: \$65,000 for one long term curriculum design/trainer specialist, \$30,000 for Functional Analysis specialist and local assistance, \$15,000 for Information Systems specialist, \$25,000 for Management Systems specialist, \$16,000 for 2 long term participants. \$7,500 for Interim Supervisors, \$5,000 for project evaluation and \$11,500 for contingencies.

### GOJ Contribution

The GOJ agrees to contribute during the first project year the equivalent of \$370,000 for salaries of Cornwall County Health personnel, operating and logistic support, medicine and equipment connected with the primary health care delivery in Cornwall County. This includes the GOJ portion of Dr. D'Souza's salary, the salaries for the Training Coordinator and the Public Health Tutor and the matching funds for the Interim Supervisors.

PARISH	TYPE OF CENTRE	LOCATION	REMARKS ON SITES
Hanover	IV	Lucca	Hospital based - site suitable.
	II	Cascade	Suitable site available from United Church of Ja. & Grand Cayman. Donation of site confirmed by Rev. Wint.
	II	Cacoon Castle	Suitable site available at Nyrens Farm
	II	March Town Cave Valley	Land available opposite Mr. Cyril Reid's premises at Cave Valley to be purchased from Mr. Durrant.
	I	Great Valley	Suitable land owned by Social Development Commission available.
	I	Mt. Pelier	Suitable land space next to Basic School donated by Tryall Trust.
	I	Askenish	Suitable land to be purchased (next to Primary School)
	I	Copse	Suitable Govt. Land (approx. 1 acre) available 20 chains from Copse Postal Agency on road to Miles Town - This land was originally earmarked for a Basic School
I	Logwood	Suitable land available - to be purchased from Mrs. Williams.	

**PROPOSED NEW HEALTH CENTRES - COUNTY OF CORNWALL**

<b>PARISH</b>	<b>TYPE OF CENTRE</b>	<b>LOCATION</b>	<b>REMARKS ON SITES</b>
<b>St. James</b>	<b>III</b>	<b>Granville</b>	Suitable Site on lands to be made available by Ministry of Education (Sam Sharpe Teachers Training College). Alternate site has also been offered by Barnett Estates at peppercorn rental on lands previously earmarked for Community Centre near the Anglican Church at Granville.
	<b>III</b>	<b>Catherine Hall</b>	To be sited on lands earmarked for the purpose by U.D.C. Site suitable. Early Construction recommended.
	<b>IV</b>	<b>Mongego Bay</b>	Land opposite old Hospital too small to accomodate this centre. Other sites being considered including Ministry of Housing lands at Mt. Salem. Further investigations required.
	<b>III</b>	<b>Cambridge</b>	No Site selected. Further investigations are being carried out.
	<b>II</b>	<b>Mt. Salem</b>	No Ministry of Health lands in this area can be located. Please see comments above.
	<b>II</b>	<b>Tower Hill</b>	Lands available in Spring Garden Development and have been earmarked by the developers for this purpose.
	<b>I</b>	<b>Vaughansfield</b>	This centre is now to be located at Garlands square on lands available from Ministry of Agriculture.
	<b>I</b>	<b>Springfield</b>	Suitable land available at Kensington/Springfield border on Shepherd's Hall property purchased by Govt. from DeLisser Bros.
	<b>I</b>	<b>Glendevon</b>	Ministry of Housing land available at Glendevon.
	<b>I</b>	<b>Lottery</b>	(a) Old Sugar Welfare clinic at Sunderland to be refurbished or <u>alternately</u> . (b) Suitable land available at intersection of Sunderland/Potosi and Amity Hall Main Roads on lands formerly belonging to DeLisser Bros.

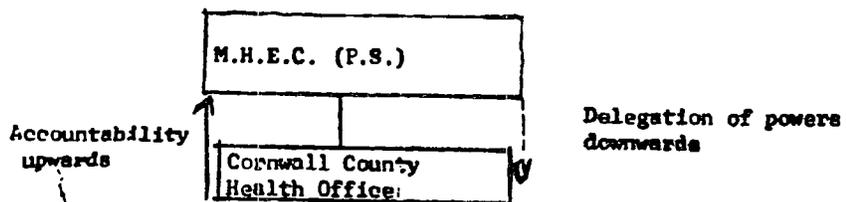
PARISH	TYPE OF CENTRE	LOCATION	REMARKS ON SITES
St. James	I	Flanker	Existing Community Centre to be refurbished and converted to Type I.
	I	Barrett Twn.	Suitable land belonging to Ministry of Housing available near Community Centre.
	I	Somerton	Suitable land available for purchase from Miss Patrickson at Somerton Square. Alternately existing clinic building owned by the same Miss Patrickson can be purchased and remodelled at little cost.
	I	Johns Hall	Suitable land available on Cool water property which has been purchased by Govt. from DeLisser Bros.
	I	Goodwill	Suitable Land available near Community Centre.
	I	Bickersteth	In view of the new Govt. housing development at Richmond Hill, it is proposed that lands earmarked for a clinic there be used for this centre.
	II	Catadupa	Suitable Govt. land available near playing field at Catadupa.
Trelawny	IV	Falmouth	Hospital based- site suitable.
	III	Albert Town	Suitable Site available beside playing field at Motta Land belonging to Christiana Land Authority.
	I	Deeside	Suitable site identified belonging to Ministry of Agriculture (Blackwynd Land Settlement) beside playing field.
	I	Stewart Town	Suitable site identified on land owned by Govt. near playing field.
	I	Troy	Suitable site identified near playing field - Govt. property.
	I	Low River	Site identified at Glastoneberry (Gentle's property) <u>not suitable</u> / to uneven terrain.
	I	Rio Bueno	Site near Bankers Hill Community centre suitable.

5. Management Structure and Functions - County Health Office

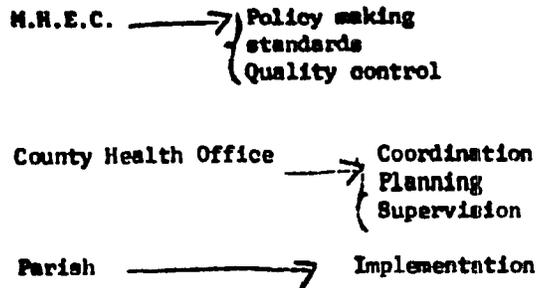
5.01 In order to ensure efficient administration, coordination and planning of all the components of the Cornwall County Project it is proposed that a management structure be provided at County level with the following functions:-

1. Administration, Planning, supervision and coordination of all curative and preventive health programmes in the county in accordance with the policies and operational guidelines of the Ministry of Health and Environ. Control.
2. Responsibility for financial administration of the County in accordance with the approved budget of the Ministry of Health and Environ. Control.
3. Preparation of County financial Budget and maintenance of accounting and other records as required by Financial Regulations.
4. Ensuring adequate staffing and deployment of staff and responsibility for personnel management programmes in accordance with authority delegated by Permanent Secretary Ministry of Health & Environ. Control.
5. Ensuring an adequate system of health information within the county and to the Ministry of Health and Environ. Control.
6. Maintaining adequate supply of stores and equipment for undertaking various health programmes
7. Ensuring proper maintenance of buildings within the county
8. Evaluation of all health care programmes in the county with the co-operation of the Ministry of Health Planning and Evaluation Unit
9. Giving advice to the Permanent Secretary, Ministry of Health and Environmental Control and when requested to do so.
10. Any other functions that may be assigned by the Permanent Secretary Ministry of Health and Environmental Control

5.02 If the above management functions are implemented it will be possible to decentralise the activities of the Ministry of Health and Environmental Control in the County of Cornwall while retaining the responsibility of the County structure to account to the Ministry of Health and Environmental Control for its activities viz



The above structure if implemented will create a 3-tier system each with its own defined functions viz.



SUMMARY OF PROJECT:

The proposed project in the County of Cornwall would therefore finance:

- (a) The construction and equipment of 57 new Health Centres in the County of Cornwall on a phased basis over the period 1976/81.
- (b) Additional capacity by remodelling/refurbishing of 28 existing health centres
- (c) 15 houses for accomodating nursing personnel in remote areas in the County
- (d) Health Education Component
- (e) Nutrition Education component } County of Cornwall \* to be determined from Task Force Report
- (f) Midwifery training school - Cornwall Regional Hospital
- (g) Post partum Project - Expansion of existing project at Cornwall Regional Hospital to four District Hospitals .

\*Proportion

Regional Health Office  
Cornwall Regional Hospital  
Montego Bay  
1st November 1975.

5 MANPOWER TRAINING

It is obvious that Training of Manpower Resources for the Health Centres will have to be done on a phased basis. However plans have already been made for training and in some cases are already being implemented.

1. Medical Officers (Health) and Medical Officers

It is anticipated that there will be no difficulty in filling these posts either through overseas recruitment or local recruitment. The two Medical Officers (Health) are expected to be filled in early 1976 partly through intake of the graduates who have done their D.P.H. at the University of the West Indies and partly through overseas recruitment.

As regards Medical Officers for H.C.'s, it is anticipated that there will be no problems in recruitment of these officers for Health Centres constructed in 1976/1977. It is expected that Government's programme for training of residents in Community Medicine at Cornwall Regional Hospital will have produced its first graduates by 1978/79 at which time other health centres which have been built or remodelled will require Medical Officers.

2. Nurse Practitioner :

Plans for training Nurse Practitioners are being actively pursued and should be implemented in 1976.

3. Public Health Nurses: will be appointed in two categories (i) Grade III Public Health Nurse which is an administrative training grade recently introduced for experienced Public Health Nurses with post graduate qualifications in advanced nursing or administration. This is an on-going exercise and there are sufficient public health nurses to fill these posts in the County as the necessity arises. (ii) Grade II Public Health Nurse: There is a shortfall in this category which can only be met by having two intakes per year (instead of one as at present) at the West Indies School of Public Health and decentralising training activities. For this purpose it will be necessary to recruit two Public Health Tutors for 36-man months which would train sufficient Public Health Nurses to meet the shortfall in the cadre of Public Health Nurses in approximately three years.

4. District Midwives

Additional facilities for training of Midwives are required and the Task Force has already submitted proposals for a Midwifery school at Cornwall Regional Hospital complemented by domiciliary training at Health Centres where they would get their required Community experience. If approved, the yearly output of 20 Midwives will be adequate to meet the requirements of the County of Cornwall within three years on a phased basis. Two Midwifery tutors for giving this training are required for a total of 36 man months. Modifications in the intake of obstetric patients to provide at least 36 beds for obstetrics and antenatal care at the Cornwall Regional Hospital will be required.

5. Community Health Aides

There are at present nearly 300 Community Health Aides in position in the County of Cornwall and 88 are at present undergoing training in the

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parish of Westmoreland. It is expected that training will commence in the parishes of St. Elizabeth and Trelawny before the end of the year so that by mid 1976 there should be approximately one Community Health Aide to every 2,000 of the population in the County of Cornwall. If required, the ratio of Community Health Aides to population can be increased to 1 for every 1,000 of the population by 1980 depending on the demand for services as the primary health care structure is developed.

6. Nutrition Officers and Assistants

Training of these officers is already being undertaken and the required cadre of 1 Senior Nutrition Officer, 5 Nutrition Officers, 18 Senior Nutrition Assistants and 33 Nutrition Assistants should be available by May 1976.

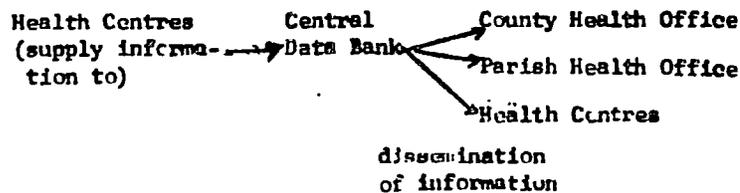
4. Health Information System

4.01 The present system of statistical information in MCH., FP. and Nutrition feeds into two systems viz. the Ministry of Health and the National Family Planning Board.

(i) All information relating to M.C.H. clinics and Nutrition is fed from the clinics and Health Centres into the Parish Health office from where it is passed on to the Ministry of Health. The Statistician at the Ministry of Health is responsible for compiling and analysing this information.

(ii) All information relating to Family Planning clinics is fed directly to the National Family Planning Board where it is compiled and analysed.

With the integration of the MCH, PP and Nutrition activities it is proposed that these two facilities at the M.H.E.C. and N.F.P.B. be integrated and that all data for the Project be collected and analysed at one central point which should then make available this information in the form of monthly, quarterly and annual reports to all the components who feed this information.



The statistical clerk at the Grade III H.C.'s and the senior Statistical Clerk at Grade IV H.C.'s will be responsible for implementing the information system at Parish level

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COUNTY OF CORNWALL - COMMUNITY HEALTH PROJECT

PRESENT MANPOWER AND MANPOWER REQUIREMENTS FOR PERIOD 1976/81

T.RISH	PRESENT MANPOWER								ADDITIONAL MANPOWER REQUIREMENTS 1976/81						
	Drs.		Nurse Pract.	Sr. PHN	PHN	SBN	D/MW	CHP	Drs. Ft.	Nurs. Pract.	PHN	PHN	SBN	D/MW	CHP
	Ft.	Pt.													
TELOWNY	-	2	-	1	7(2)*	1	19	-	3	4	2	-	7	120	
T. JAMES	2	1	-	2	8(3)	2	19	109	4	7	2	13	13	71	
H/NOVER	1	1	-	1	5(2)	1	14	142	11	6	2	9	8	-	
WESTMORELAND	-	4	-	2	5(1)	2	18	88*	1	-	-	5	12	22	
St. ELIZABETH	-	3	-	2	7(2)	2	10	27	9	10	-	9	9	129	
<b>TOTAL</b>	<b>3</b>	<b>11</b>	<b>-</b>	<b>8</b>	<b>33(10)</b>	<b>8</b>	<b>80</b>	<b>366</b>	<b>24</b>	<b>392</b>	<b>6</b>	<b>43</b>	<b>53</b>	<b>342</b>	

\* Total includes trained and untrained Public Health Nurses  
 Figures in Brackets indicate untrained personnel.

It. will only be staffed during certain hours eg. one hour in the morning and an hour in the afternoon. The remaining part of the day will be spent on field work, home visits etc. Supervision will be exercised by Public Health Nurses of Type II H.C.

(ii) Type II H.C. will see referrals from Type I H.C. and will be the backup centre for routine preventative and curative measures. For instance it will see cases in its catchment area that do not require the immediate services of a doctor or do not require laboratory investigations before treatment. Immunisations would be done routinely at this H.C. which would be the "base" for the school health, school dental services, environmental sanitation and nutrition demonstration and advisory services for the catchment area.

(iii) Type III H.C. will be the referral centre for all health services that are not provided at Type I and II. As Type III will provide a full range of curative and preventive services for the area that it serves, it is expected that it will be the centre (a) from which most of the admissions to hospital will take place (b) where the health team will concentrate on a co-ordinated approach to primary health care both from the curative and preventive point of view. In other words it will be the last "port of call" before the patient is admitted to hospital. The staff at Type III will be exercising supervision over Types I and II and will also arrange for specialist clinics either at Type II or III depending on numbers, accessibility to clinics etc.

NB All emergencies will go either to Type III or directly to hospital depending on the nature of the emergency.

(e) Staffing of Health Centres

1. Functions of Staff Before we outline proposals for staffing of health centres it is necessary to define the main functions of the Principal Officers concerned with the delivery of rural health services viz.

- (1) MEDICAL OFFICER (HEALTH) is responsible, inter alia, for the implementation of entire maternal and child health, family planning and nutrition programme in his parish. He liaises with the curative services provided by the hospital and advises the local board of health on all matters affecting public health. He therefore provides the highest level of care within the primary health care system and is responsible for the administration of the system in his parish.
- (2) MEDICAL OFFICER (HEALTH CENTRE) or DISTRICT MEDICAL OFFICER is responsible for the medical care of patients at Primary health care level and is responsible to the Medical Officer (Health) of the parish. He will be in charge of the Type III Health Centre and will provide medical backup facilities for Type II and Type I Health Centres in consultation with his staff and Medical Officer (Health).
- (3) PUBLIC HEALTH NURSES work in Health Centres under the medical supervision of the Medical Officer subject to the administrative supervision of the Senior Public Health Nurse of the Parish and Medical Officer (Health). Their main functions are:
  - (a) Supervision of District Midwives, Staff Nurses and C.H.As
  - (b) Provision of more specialised care and advice to mothers and children.
  - (c) To maintain a link between (i) preventive and curative care at H.C. and Community level

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- (ii) Primary and secondary care.
- (4) PUBLIC HEALTH INSPECTORS are primarily responsible for the environmental health aspect of community health. In the MCH programmes they will be asked to :
  - (a) Assist in Family Life education
  - (b) be the link of the primary health care service with the male segment of the community
  - (c) to use their influence in assisting the Family Planning Programme with male motivation and in educational inputs into schools and male dominated community programmes.
- (5) DISTRICT MIDWIFE works in Health Centres Type I AND Type II and in homes. She is subject to supervision by the Public Health Nurse and her main functions are:
  - (a) providing routine prenatal, postnatal and Family Planning Services
  - (b) conducting normal deliveries either at the patients home or at Rural Maternity Centres.
  - (c) Providing in conjunction with the Public Health Nurse routine care to children under five years of age.
- (6) NUTRITION OFFICERS : There are two grades of Nutrition Assistants at present under training viz. Senior Nutrition Assistant and Nutrition Assistant. four out of five parishes in the County of Cornwall have nutrition officers who implement the Nutrition policy of the Government under the administrative supervision of the Medical Officer (Health) and under the technical supervision of the Technical Officer (Nutrition) Ministry of Health. At present Nutrition Officers in the parishes function mainly as resource personnel to the health team and provide in service training to all categories of health workers. It is expected that with the implementation of the nutrition staff infrastructure in each parish there will be marked expansion of the services provided at every level of the primary health care system.
- (7) COMMUNITY HEALTH AIDES provide the cornerstone for community health services particularly in the fields of M.C. H. F.P. and Nutrition. They work from Health Centres within a prescribed area of their Community and most of their time is devoted to home visits in the Community which they serve. Each Community Health Aide has been trained to (a) identify health problems and bring them to the attention of trained personnel. (b) give basic advice to the people in her community on nutrition, cleanliness and hygiene in the home (c) encourage advise mothers and children to attend clinics regularly and motivate them to get themselves immunised against infectious disease (d) motivate mothers, teenagers etc. to attend Family Planning clinics (e) assist other members of the health team at clinics, nutrition demonstrations, health education sessions etc. (f) to visit the households in her area regularly and maintain a liaison between the health services and the community.

## 2. Manpower Requirements

3.12 The manpower requirements for staffing of Health Centres at various levels is given below:-

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- (c) Senior Public Health Inspector Grade II
- (d) Administrative Nursing sister
- (e) Staff Nurse/Assistant Nurse
- (f) Midwife
- (g) Health Educator
- (h) Pharmacist
- (i) Dentist and School dental nurse
- (j) Medical Technologist and Laboratory Assistant
- (k) Executive Officer, clerk/receptionist and attendants

The services provided at this centre will include:

- (a) Daily- Curative clinics. Also dental clinics depending on staff availability
  - (b) Weekly - Antenatal, postnatal, F.P., Child Health and Nutrition demonstrations.
  - (c) Referrals to Type IV/Hospital
  - (d) Secing referrals from Type I and Type II centres related to it
  - (e) Administrative supervision of all Type I and Type II centres related to it
- (4) Type IV Centre will be the administrative centre of the parish and will be located on the Hospital compound in accordance with Government's declared policy of integration of preventive and curative health services. The Type IV Health Centre in St. James will be located in downtown Montego Bay.

Basically the Type IV Health Centre will be a Type III Health Centre with the addition of the administrative offices of the Medical Officer of Health and his staff.

3.06 The proposed project will therefore provide for financing of the construction of the following categories of Health Centres:

	<u>New</u>	<u>Remodelled</u>	<u>Total</u>
Type IV	5	-	5
Type III	6	10	16
Type II	12	18	30
Type I	35	-	35
<b>Total</b>	<b>57</b>	<b>28</b>	<b>85</b>

Parish wise the distribution of new Health Centres will be

	<u>IV</u>	<u>III</u>	<u>II</u>	<u>I</u>	<u>Total</u>
Trelawny	1	0	0	5	6
St. James	1	3	3	10	17

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	IV	III	II	I	Total
Hanover	1	0	4	5	10
Westmoreland	1	1	3	9	14
St. Elizabeth	1	1	3	6	11
Total	5	6	13	35	59

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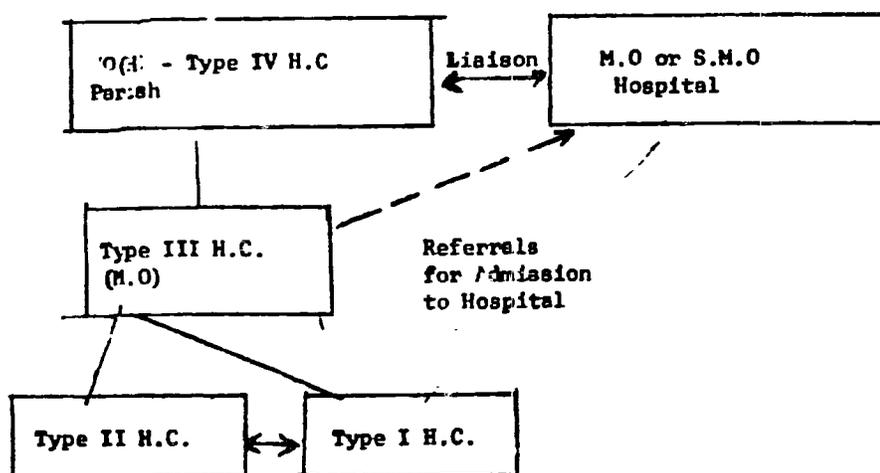
(e) Phased Construction of Health Centres - Cornwall County

3.07 Proposals for phased construction of Health Centres over the period 1976-81 have already been submitted by the Task Force (vide Population Project II, October 1975 Pages 10-15)

3.08 It is requested that in addition to the Construction of Health Centres as proposed for 1976/77, consideration be given to refurbishing at least one additional Health Centre in each Parish so that existing community health programmes can be expanded now instead of waiting till 1978/79. This would also stimulate recruitment of professional people to staff these centres. If this proposal is accepted in principle by the World Bank, an additional list for refurbishing Health centres during 1976/77 will be submitted.

(d) Supervisory Relationship (by Type of Health Centre)

3.09 It is important that relationships between the various types of Health Centres be properly defined in order to prevent overlap of functions and for proper utilisation of resources. The following supervisory relationship chart defines "the chain of command" in the system -



3.10 The staff and services provided at each type of H.C. have already been detailed at 3.05 above. They are summarised in terms of supervisory relationship below:

(1) Type I Health Centre is a "basic" community health centre and will provide the home base for the grass roots workers in the fields of M.C.H., F.P. and Nutrition viz. the District Midwife and the C.H.A.

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6. Reduce Neonatal death rate from 19 to 15 (p 10,000 live births)
7. Reduce Infant Mortality Rate from 26 to 20 (p. 10,000 live births)
8. Reduce incidence of Malnutrition Grades II and III by at least 60%

3. Organisation of Primary Health Care Facilities

3.01 The present health services offer health care mainly at two levels:-

- (a) Primary health care at Health Centres Dispensaries, Rural Maternity Centres and the home. Care is delivered by Community Health Aides, Midwives, Assistant Nurses, Public Health Nurses and Physicians. Screening procedures indicate which level of personnel will deliver the care.

Primary Health care services are now delivered in the County of Cornwall at :

- (a) 33 Health Centres
  - (b) 14 Dispensaries (4 of these do not have MCH/FP/Nutrition service)
  - (c) 4 Rural Maternity Centres
  - (d) 48 other Maternal and Child Health clinics
- (b) Secondary Health care is delivered at five Hospitals in the Region viz
    - (i) Cornwall Regional Hospital, Montego Bay
    - (ii) Noel Holmes Hospital, Lucca, Hanover
    - (iii) Falmouth Hospital, Trelawny
    - (iv) Savana-la-Mar Hospital, Westmoreland
    - (v) Black River Hospital, St. Elizabeth

3.02 Ideally all patients for Secondary care should be referred from the Primary level but due to lack of facilities and staff for primary health care in the rural areas, this is not being done with the result that all these hospitals are at present providing both primary and secondary care.

3.03 The Medical Officer of Health is the pivot for the primary health care at the parish level and ensures the smooth running of the services provided. The MCH/FP/ Nutrition Services are given within the framework of the preventive health services under the direction of the Medical Officer (Health) from clinics run in facilities provided both by the Ministry of Health and the Ministry of Local Government. This system works reasonably well but the clinics are overcrowded and staff shortages do not allow more sessions to be held.

(b) Proposed Services

3.04 The framework of the project reflects the Government's health strategy particularly in the field of primary health care. Government has recognized that development of health services which has in past administrations been mainly hospital oriented should give due emphasis to the rural health services particularly in the areas of MCH, FP and Nutrition. It is therefore proposed that a full range of primary health care services be provided through a comprehensive network of four types of rural health centres.

3.05 The following is a description of each Type of Health centre together with staff requirements and the activities that will be carried out at each level:

(1) Type I: consists essentially of two examination rooms and a waiting room with a demonstration area and food store. It will be a centre for all health activities in the area and will cater for a population of approximately 4,000 people. It will be staffed by a District Midwife and two Community Health Aides. Services provided will include antenatal, family planning, child health, first aid, nutrition advice and education in child care and personal hygiene. Referrals from other centres for follow-up will be attended to and this type of health centre will also serve as a base for all health related Community Activities eg. health education, periodic nutrition demonstrations to women's groups and teenage educational activities with emphasis on family life education. The staff at this centre will be responsible for home visiting within the geographical catchment area of the centre.

(2) Type II: will have facilities for both curative and preventive health services and approximates the existing 33 Health Centres. The facilities will include two examination rooms, a dressing room, Officer for the area staff, demonstration room with cooking facilities, food store and waiting room. This centre will cater for a population of approximately 8,000 people and will have the following staff:

- (a) Public Health Nurse who will be in charge of the centre
- (b) Public Health Inspector
- (c) Full time registered Nurse
- (d) Midwife (e) Assistant Nurse
- (f) Community Nutrition Assistant (g) Community Health Aides

Weekly visits would be made to this centre by the doctor, pharmacist laboratory assistant and Health Educator from the Type III Health Centre. Dental services will also be provided at this centre which will also serve as a centre for the school dental service.

(3) Type III: This centre will provide a full range of curative and preventive services including some specialist services by arrangement with the Hospital as and when necessary. It will serve an average population of 16,000 and will be open for eight hours daily. The staff will include:

- (a) Full time doctor
- (b) Grade III Public Health Nurse

.....

Draft of Paediatric Nurse Practitioner Training Programme

Six months course

PLAN

First month - block lectures on basic topics e.g. history taking, clinical examination, child development pharmacology, psychiatry -

Five months - systematic lectures on areas of work, bedside teaching, examination of patients, practising of procedures, seminars.

First week -

Lectures -

Aims of Paediatric Nurse Practitioner programme

Growth and Development of the Infant

" " " " " Toddler

" " " " " Pre-Schooler

" " " " " School age child

Infant Nutrition  
& Toddler Nutrition

Practicals

- (1) Visits to VJH, Obs Block UCH  
Nursery re infant
- (2) Visits to Wards, Well baby clinic UCH, Creche,  
Day Nursery re toddler & pre schooler
- (3) Visits to Wards re school age child
- (4) Visits to Wards and M.R.C. re Malnutrition

Second Week-

Lectures

Paediatrics  
History taking  
Physical Examination - introduction  
Examination of the Head & Neck  
Examination of the Chest

Practicals

demonstrations and practice of the above  
use of the otoscope and stethoscope

Third Week

Lectures

Exam. of the Heart  
Exam. of the Abdomen & Genitalia  
Exam. of Joints, Bones, spine

Practicals

demonstrations and practice of the above

Fourth Week

Lectures

C.N.S. exam.  
Child Psychiatry and common behaviour disorders  
Emotional effects of hospitalization  
Drugs and children  
The Well child & early recognition of disease with  
emphasis on preventive aspects.

Practicals

demonstrations and practice of the above.

- 2 -

Fifth WeekLectures

The Newborn, Full term & Premature  
 Recognition of the sick neonate and initial management  
 Management of Moniliasis  
 Nappy rash  
 Cradle cap

Practicals

demonstrations of above

Sixth WeekLectures

Malnutrition  
 Fluid & Electrolyte balance  
 Gastro-Enteritis

Practicals

demonstrations of above  
 I.V. drips  
 I.V. drugs

Seventh WeekLectures

Coryza  
 Upper respiratory tract infections  
 Tonsillitis  
 Ear infections  
 Diphtheria  
 Laryngeal stridor  
 Acute laryngotracheobronchitis  
 Respiratory arrest

Practicals

demonstrations of above

Eight WeekLectures

Bronchopneumonia  
 Lobar pneumonia  
 Bronchiolitis  
 Wheezy Bronchitis  
 Bronchial asthma

Practicals

demonstrations of above

Ninth WeekLectures

Cardio-respiratory arrest  
 Cardiac failure

Practicals

demonstrations of above  
 Blood taking  
 Urine testing

Tenth WeekLectures

Meningitis  
 Convulsions  
 Coma

Practicals

demonstrations of above

Eleventh WeekLectures

Burns  
 Shock states  
 Haemorrhage  
 Accidental Poisoning

Practicals

Demonstrations of above.

- 3 -

Twelfth Week

Lectures Skin conditions, especially  
Skin sepsis  
Scabies  
Eczema  
Ringworm  
Ulcerative stomatitis  
Acute Nephritis  
Worms

Practicals demonstrations of above  
Systematic exam. of Ward cases

Thirteenth Week

Lectures Eye conditions, especially conjunctivitis  
trauma to the eye  
  
Rheumatic fever  
Musculo skeletal disorders, especially arthritis  
osteomyelitis

Practicals demonstrations of above  
Systematic exam. of Ward cases

Fourteenth Week

Lectures Anaemias, especially Sickle Cell Anaemia  
Iron deficiency anaemia  
Folic acid deficiency anaemia

Bleeding disorders

Practicals demonstrations of above  
Systematic exam. of Ward cases

Fifteenth Week

Lectures Jaundice, including neonatal

Practicals demonstrations of above  
Systematic exam. of Ward cases

Sixteenth Week

Lectures Retention of Urine

Practicals Demonstrations of above  
Systematic exam. of Ward cases

Seventeenth Week  
to Twenty-Third Week

Systematic examination of cases in wards and Out-  
patient Clinics e.g. known heart patients, sicklers,  
etc.

Regular Seminars.

Twenty-Fourth Week

Final examination of Paediatric Nurse Practitioner  
students.

Twenty-Fifth & Twenty-  
Sixth Weeks

Vacation

Twenty-Seventh Week

Start three month Internship at U.C.H. Paediatric Unit or Children's Hospital.

Tutors

Paediatricians - U.C.H., Children's Hospital, in private practice.

Specialists in ENT, Eyes, Dermatology, T.M.R.U. staff.

Public Health Doctors, General Practitioners.

Nursing staff of Teaching Units of U.C.H., Kingston region.

Paediatric Nursing staff from U.C.H. and Children's Hospital.

Public Health Nurses.

(Sgd.) Dr. Keith McKenzie

(Sgd.) Professor Colin Miller

(Sgd.) Dr. Ronald Lampart

ADVANCED NURSING EDUCATION  
FACULTY OF MEDICINE  
UNIVERSITY OF THE WEST INDIES

FHP 24  
1974/75  
Appendix 11

Estimate of Additional Requirements to be Met by the  
Ministry of Health & Environmental Control in  
Order to Facilitate Start of the  
Nurse Practitioner Programme  
Under the Aegis of The  
Advanced Nursing Education Unit (ANEU)

Recent discussions with officials of the Ministry of Health & Environmental Control indicate that the Ministry has decided to start the Nurse Practitioner Programme (NPP) with a course for the Nurse Paediatrician. Other priority courses specified (i.e., Family (General) and Psychiatric Nurse Practitioner courses) are "to come on stream as early as possible" after the initial course.

A proposal that intake to the first nurse paediatrician course be limited to about eight (8) students seems to have found favour with representatives of both nursing and medicine. However, figures being mentioned by Ministry officials suggest a larger intake; this number is still to be decided.

In addition, recognition is given to the fact that a complete and detailed list of requirements should be produced through the joint efforts of nursing as well as medical participants in the course/programme. Any other list can only be tentative in nature.

Therefore, in preparing a list of requirements for the start of the NPP, the ANEU has focused on the Nurse-Paediatrician Course and refrained from stating a specific number of students. It is assumed that the actual number will be more than eight (8) and less than thirty (30). The tentative estimate of requirements are as follows.

1.0 Faculty

- Nurse-Paediatrician Coordinator (overseas consultant)
- Nurse Tutor (paediatric specialty) to act as counterpart to coordinator
- Lecturers
  - Medical (2)
  - Allied disciplines (1). This may consist of three or more part-time guest lecturers.

Travelling allowance

2.0 Staff

- Secretary
  - Office Assistant
  - Library Attendant
  - Domestic Help
- } These could be National Youth Service Workers.

3.0 Students

- Fees -- approx. \$1,500 per student
- Per diem allowance -- for out-of-town students
- Transportation (or travelling allowance)
- Instruments
  - Stethoscope -- one for each student
  - Sphygmo. (compact) " " " "
  - Ophthalmoscope " " " "
  - Auroscope " " " "
  - Percussion Hammer " " " "
  - Tuning Fork " " " "
- Text-books -- as recommended (or text-book allowance)
- Certificates (design as decided)

4.0 Physical Facilities

- Classroom (equipped) -- to hold 30 students
- Offices -- for coordinator and secretary
- Library (shelved) -- with working space, table, desk & chair for library attendant
- Reading Room -- to seat 10 students
- Conference Room -- with necessary equipment & furniture
- Store Room (shelved)
- Work Room (with space for Office Assistant) -- for duplicating, sorting, collating & cutting materials.
- Lunch Room -- with necessary equipment & furniture
- Rest Rooms
- Janitor Room

5.0 Office Furniture & Equipment

- Double-pedestal desk (1)
- Executive chair (1)
- Secretary's desk Unit (1)
- Typist's chair (1)
- Office chairs (3)
- Manual typewriter (1)
- Large filing cabinets (2)
- Small filing cabinet (6-drawer) for library cards (1)
- Book stands (2)
- Gestetner duplicator (1)
- Stencil cupboard (1)

**6.0 Stationery & Supplies**

- Copy paper (yellow)	3 reams
- Copy paper (white)	3 "
- Bond paper (white, letter-size)	5 "
- Bond paper (white, foolscap)	5 "
- Foolscap paper (lined)	5 packets
- File jackets	200 (assorted colours)
- Staplers with remover	2
- Staples	6 boxes
- Carbon paper (letter-size)	3 "
- Carbon paper (foolscap)	3 "
- Rubber bands (assorted)	3 "
- Paper clips (assorted)	6 "
- Office tape	3 rolls
- Ruler -- 12"	3
- Ruler --, 18"	3
- Paper Scissors	1 pair
- Pencils	1 dozen
- Waste Paper Baskets	6 -- (4 for Offices; 2 for Rest Rooms)
- Waste Bins (covered)	3 -- (Kitchen, Janitor & Work Rooms)
- Notice Boards (4'x3')	3 -- (Office, Classroom, lunch room)
- Thumb Tacks	3 boxes
- Desk Pads	1
- 3 tier Desk Basket	2 sets
- All-purpose 4-tier shelf unit	2
- Binders (3 ring)	6
- IXL Box File	3
- Guillotine (foolscap)	1
- Gestetner Paper (foolscap)	3 packs x 1000 sheets
- Gestetner Paper (letter-size)	6 packs x 1000 sheets (assorted colours)
- Gestetner Ink	6 tubes
- Scotch Tape Holder	1
- Scotch Tape	3 rolls
- Labels	2 boxes
- Ink Pads	2 (1 Red, 1 Blue)
- Date Stamp	1
- Stamps as designed 'Nurse Practitioner Programme' 'COPY'	2
- Gestetner Correcting Fluid	3 bottles
- Gestetner Stencils	6 boxes
- Paper Punch Machine	1
- File Fasteners	200
- Hand Towels	1 carton
- Toilet Rolls	1 carton
- Soap	12 cakes

6.0 Stationery & Supplies (cont'd.)

- Disinfectant	1 tin
- Mops	2
- Brooms	2
- Pails	2
- Dusters	6

7.0 Teaching Equipment & Audio-Visual Aids

- Film Projector & Screen	1
- Overhead Projector	1
- Tape Recorder	1
- Chalk Boards (Built-in)	2
- Chalk Boards (Portable)	2
- Chalk Board Erasers	3
- Flip Chart Holders	2
- Cartridge Paper (Assorted colours) for Flip Chart	3 dozen sheets
- Anatomy & Physiology Charts (as recommended)	
- Models (as recommended)	
- Films (selected)	
- Slides (selected)	
- Other Audio-Visual Aids (as recommended)	

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FMI 24

1974/75

PROPOSAL for ESTABLISHING  
the  
NURSE PRACTITIONER PROGRAMME  
with  
Job Description, Objectives and Curriculum Outline for Preparation  
of the  
PAEDIATRIC NURSE PRACTITIONER

A WORKING PAPER FOR DISCUSSION

Nurse Practitioner Programme Working Party:

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Mary J. Selwright, President, Nurses Association of Jamaica -- Ex Officio

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We acknowledge the assistance of all other nurses who contributed to the activities of the working party.

## THE NURSE PRACTITIONER PROGRAMME

### 1.0 Introduction

The Government of Jamaica, through the Ministry of Health and Environmental Control, has been considering the start of a nurse practitioner programme for over two years. During this time discussions have been held between Ministry representatives and various groups, including the Faculty of Medicine, U.W.I., Medical Association of Jamaica (MAJ) and the Nurses Association of Jamaica (NAJ). (verseas trips to observe nurse practitioner programmes were undertaken by Ministry officials and selected doctors. There have also been regular meetings and consultations between NAJ and MAJ.

Initial lists of medical topics to be included in curricula for the preparation of three types of nurse practitioners (paediatric, family and psychiatric) were prepared by selected panels of doctors and submitted to the Ministry through the Faculty of Medicine during 1973. In September, 1974, NAJ prepared and submitted to the Ministry a proposal for establishing nurse practitioner programmes in Jamaica, with particular reference to the paediatric nurse practitioner. This proposal, based on models developed in North America, and modified in terms of our Jamaican health care experience, has been accepted in principle by the Ministry as well as MAJ.

#### Characteristics of Nurse Practitioner Programmes (NPP) in North America.

The rationale for developing these programmes in North America is quite similar to our reason for wanting to develop them here in Jamaica (i.e., the overwhelming health care needs of the population, which cannot be met by the traditional system of delivery). The programmes in North America are quite diversified, offering a variety of educational opportunities for particular types of nurse practitioners. These include, Family, Paediatric, Adult, Obstetric-Gynaecological and Psychiatric/Mental Health.

Nurse practitioners practice in urban, rural, remote and sparsely populated areas, in a variety of health agencies, in communities in medical group practice and as private practitioners. Notwithstanding the multiplicity of programmes, there are some outstanding features common to all programmes in the North American experience.

- 1.1 All nurse practitioners are licensed or registered professional nurses. (This is distinct from Physicians Assistants who are largely non-nurses and are prepared in courses specially designed for them.)
- 1.2 The programmes for nurse practitioners are built on previous professional nursing knowledge.
- 1.3 The role of the nurse practitioner is the expanded role of the professional nurse. She is patient/family oriented.
- 1.4 The nurse practitioner maintains total and strong identification with the nursing profession.
- 1.5 The educational programmes for the nurse practitioner are at the Bachelors or Masters level in an accredited institution of higher education. They are specifically developed for the appropriate field of nurse practitioner practice and are approved by duly constituted bodies; e.g., Council of Nursing Education. The majority of programmes are at the Masters level (6 terms).
- 1.6 The educational programmes are under the aegis of the Faculty, School or Department of Nurse Education within the Institution of Higher Education.
- 1.7 It is accepted that there must be legislation in each state or province governing the education and practice of the nurse practitioner. In some states legislation has already been enacted (e.g., New York, California).
- 1.8 Beginning at the policy-making and planning level there is close, ongoing cooperation between:
  - 1.81 Faculties, Schools or Departments of Nursing and the Medical Faculties or Schools;

- 1.82 Local, State Provincial and National Associations of nurses and doctors;
  - 1.83 Nursing and medical councils;
  - 1.84 Nurse practitioner funding and employment agencies and representatives of nurses and doctors;
  - 1.85 Nurse practitioners and doctors in the particular agency of activity or in the geographic location.
- 1.9 There are Joint Advisory Boards and committees with balanced representation from nursing, medicine and health consumers.

All new programmes are evaluated after they have been put in operation for a specified period. (i.e., official evaluations other than the customary evaluations carried out by faculty).

## 2.0 Definitions

- 2.1 Nurse Practitioner is a person who has the minimum qualifications of Registered Nurse and Certified Midwife and who has completed an approved Nurse Practitioner programme in a clinical nursing specialty. This person provides in-depth nursing care and assumes specific responsibilities and functions of a medical nature, acting independently with clear delegation of authority.
- 2.2 Nurse Practitioner Programme is an approved advanced nursing education programme that takes place under the auspices of an institution of higher education, with suitably qualified lecturers in nursing, medicine and allied disciplines. The programme is designed for the professional nurse and enables her to provide expert care in the clinical nursing specialty of her choice, e.g., Paediatric, Family, Mental Health/Psychiatric.
- 2.3 Primary Health Care includes preventive measures and health maintenance rather than curative. It is carried out at community level working with individuals, families and groups in homes and neighbourhood clinics.

- 2.4 Secondary Health Care is curative and rehabilitative in nature and takes place after body functioning has broken down. Secondary health care is oriented to recovery and restoration of normal functioning. This takes place in multi-disciplinary institutions with facilities for diagnosis, heroic intervention and the care of the acutely ill.
- 2.5 Tertiary or Extended Health Care is palliative, rehabilitative and motivational in nature and relates to chronic illness and/or permanent disability. It is geared to individuals and families to help them achieve and maintain the best possible level of physical, mental and socio-economic wellbeing. It takes place at home and in other extended care facilities, e.g., nursing homes, geriatric agencies.
- 2.6 Comprehensive Health Care System
- 2.61 Comprehensive: the word denotes complete coverage; coverage that is thorough, inclusive and universal in relation to a specified population or clientele.
- 2.62 Health Care: this term is often used interchangeably with medical care. Health care and medical care are not synonymous; health care goes beyond the physical into the social and spiritual aspects of one's existence. Thus, health care includes prevention of disease and other conditions of ill-health, promotion and maintenance of a state of optimum well-being of the individual and his family, treatment of the sick and physical, emotional and social habilitation and rehabilitation.
- 2.63 System: carries with it the notion of a framework within which certain goals are identified, objectives set, and human and material resources programmed with a view to achieving these objectives and goals. A system will also allow for evaluation or monitoring and re-programming.
- 2.7 Use of Pronouns. The feminine pronouns are used throughout this paper to describe the nurse practitioner. These are intended to transport the masculine as well.

### 3.0 Philosophy

The availability of and access to good quality health care is a basic right. Our health service must reflect the intrinsic value of the individual and family and man's inherent dignity. High-level wellness for every man, woman and child is a desirable goal. Social and economic progress in any nation (more so a developing nation) is in direct proportion to the level of health of its citizens.

Professional nurses have clearly demonstrated that they are capable of expanding their role. They have traditionally accepted responsibility for varying aspects of health care without having special preparation. They have responded to emergencies and urgent needs, with distinction. However, this acceptance of responsibility by those not specially prepared, depends largely on the circumstance, need, time, place, experience, confidence and inclination of the nurse and/or the availability of a physician. Thus, there has been no uniformity of action, unity of purpose, legal basis, remuneration nor recognition. Nurses are ready, willing and able to assume an expanded nursing role. In this role they will serve a larger segment of the population and meet a wider spectrum of health needs.

### 4.0 Aim

In view of the nature of our health problems, the overwhelming health care needs, the proven capabilities of professional nurses, the need for a broader nursing career structure with promotional opportunities for senior staff nurses, the unavailability of medical personnel to serve the majority of our citizens, and the forecast of an even greater deficit of medical personnel for the foreseeable future, Nurse Practitioner programmes are imperative. The aim, therefore, is to develop programmes which will prepare experienced, professional nurses for greater responsibilities in the health service. These programmes should be relevant to our needs and focus on primary health care. To fulfill this aim the following objectives are outlined.

5.0 Objectives

5.1 Institute initial nurse practitioner programmes in the following areas:

- (a) Paediatric
- (b) Family
- (c) Mental Health/Psychiatric

5.2 Place all nurse-practitioner and other post-basic nursing programmes under the aegis of the Advanced Nursing Education Unit, Faculty of Medicine, U.W.I., and develop them as recognized courses of the U...I. (It is envisaged that other Caribbean countries will desire and request these programmes).

5.3 Select persons with the minimum qualifications of registered nurse and certified midwife, (or acceptable alternative) who have demonstrated clinical nursing interest and competence in a particular nursing specialty.

5.4 Select persons with a minimum of (5) five years post-registration practice in the clinical area of choice. This experience may be consecutive, or accumulated over time.

5.41 Preference should be given to those applicants with wider experience.

5.42 Professional nurses who have already received post-basic qualifications in education or administration and fulfill the other requirements, should also be given the opportunity. These persons will in time become the core of the NPP teaching staff, inservice educators and supervisory personnel.

5.5 Clearly state the role, responsibilities, functions and job description of the nurse practitioner.\*

5.6 Prepare the nurse practitioner to function in her special area of practice in a variety of settings, (e.g., comprehensive health care centres, clinics, hospitals, home, industry, schools and extended care facilities).

5.7 Prepare the nurse practitioner to work independent of, interdependent with and complementary to the physician and other members of the health team, with

\*These should be agreed on by both the nursing and medical faculties.

clearly defined limitations.

- 5.8 Initiate legislation to regulate the education and practice of the nurse practitioner. This need not be new legislation but could be in the form of amendment(s) to existing nursing statutes.
- 5.9 Appoint a Joint Advisory Board with balanced representation from nursing, medicine, Ministry personnel and consumers of health care. These representatives should be recommended by the groups they represent.
- 5.91 Appoint sub-committees to deal with each course.
- 5.92 Appoint ad hoc working parties to develop specific aspects of the programme (e.g., for legislation, a working party of persons from the Nursing Council, Government, legal profession, NAJ, MAJ).
- 5.93 Appoint a Director to be responsible for the NPP, and a co-ordinator for each course; these persons shall be nurses selected from a list of recommended applicants.
- 5.94 Present an Annual Budget for the NPP to include:

Faculty:

- Nurse Director
- Nurse Co-ordinator(s)
- Lecturers for each NP course
- Travelling allowances

Staff:

- Secretaries (1 for each course)
- Office Assistants (2 for the programme)
- Domestic Help

Students:

- Fees
- Instruments
- Textbooks
- Transportation for field visits

Physical Facilities:

Classroom

Library

Office space

Ancillary space (e.g., rest rooms, lunchroom)

Equipment:

Office equipment

Teaching equipment (e.g., models, charts, chalk-boards)

Supplies:

Stationery and other office supplies

Appropriate forms for educational records

Audio-Visual Equipment & Supplies:

Library books — texts, reference material, periodicals, etc.

Audio-visual aids — films, projector, slides, etc.

Maintenance:

Physical plant and equipment

Contingencies

5.95 Create nurse practitioner posts in the 1975-1976 budget.

5.96 Ensure employment in the specific area of preparation and in the appropriate agency or location for prospective nurse practitioners, before they enter the course.

5.97 Provide suitable identification for the nurse practitioner.

These objectives should be regarded as recommendations for implementation of the Nurse Practitioner Programme for Jamaica.

## 6.0 General Principles

- 6.1 The traditional medical functions, once assigned to the nurse practitioner, become a permanent part of her role and responsibility, and may not be altered by individuals or agencies.
- 6.2 The curriculum to prepare the nurse practitioner must have nursing as well as medical input.
- 6.3 The qualified and legally authorized nurse practitioner must be recognized as an independent professional person, answerable to her employer, or employer-representative.
- 6.4 In the past, upward mobility in the profession was available only in the functional aspects of nursing (i.e., administration or education). The nurse practitioner programme will provide horizontal mobility and status, and reward the nurse for expertise in the clinical practice of nursing.

### 6.5 Conditions of Work and Service

- 6.51 The remuneration the nurse practitioner receives must be commensurate with her additional education, training and expertise, and the responsibilities of her post.
- 6.52 Promotional opportunities for the senior nurse practitioner should be available in the form of teaching, administration and research in the particular clinical area of practice.

### 6.6 Legal Coverage

- 6.61 Legislation controlling the education and practice of the nurse practitioner must be administered by the Nursing Council.
- 6.62 The law must offer protection to the nurse practitioner in her expanded role.

6.7 Status of the Nurse Anaesthetist

6.71 Nurse anaesthetists are regarded as the first group of nurse practitioners.

6.72 Regulations governing the selection, education, training, practice and conditions of work and service for this group must be brought in line with those accepted for the nurse practitioner programme in general.

6.8 The nurse practitioner educational programme should provide the student with the following:

6.81 Learning opportunities under the guidance of suitably qualified staff.

6.82 Experiences which will assist her to develop expertise and appropriate attitudes, and to effectively utilize her knowledge, skills and abilities.

6.83 Counselling, guidance and health care services.

6.84 Adequate library facilities with selected literature which is relevant to the programme.

6.85 Classroom and ancillary facilities.

6.86 Clinical facilities and field experiences with the appropriate patient/family population.

6.87 Selectively prepared course content.

6.88 Appropriate methods and tools of evaluation (for the educational programme as well as subsequent practice).

6.89 Freedom from financial burden.

There should be a proper system of student records for current and future use.

THE PAEDIATRIC NURSE PRACTITIONER

**7.0 Job Description**

**7.1 Job Title: Paediatric Nurse Practitioner (or Nurse-Paediatrician)**

The post of paediatric nurse practitioner, a full-time one, is being created in order to provide more adequate health care to a wider range of the child population (age 0 - 12 years).

**7.2 Professional Qualifications**

**7.21 Education & Experience:**

- Registered Nurse
- Certified Midwife (or the acceptable alternative for male nurses)
- Advanced education and training in a paediatric nurse practitioner programme.

**7.22 Personal Attributes:**

Is patient and family oriented.

Displays aptitude for independent functioning.

Maintains healthy relationships with co-workers, other personnel and the public.

Shows ability to develop her role as a paediatric nurse practitioner.

Is committed to meeting the health needs of children.

Demonstrates willingness to give community service.

Is oriented to scientific, problem-solving and data-gathering techniques.

Is a contributing member of her professional organization.

**7.3 Functions & Responsibilities**

7.31 The paediatric nurse practitioner functions in a variety of settings (that is to say, primary, secondary and tertiary or extended health care situations), giving in-depth nursing care to children (age 0 - 12 years) and performing specific services of a medical nature for which she has been prepared.

7.32 She undertakes clinical, educational, administrative and public relations responsibilities.

7.33 The paediatric nurse practitioner, as a legally-authorized and professional person is responsible for her own actions. Administratively, she is in the nursing section and in fulfilling her responsibilities as a nurse, she relates with the senior nursing person in charge. In her expanded role, which includes functions of a medical nature, she relates with the medical officer in charge. She is answerable to her employer or employer-representative.

#### 7.4 Functional Activities:

##### 7.41 Clinical

- Interviews parents, guardians (and children). Obtains a health history.
- Observes and analyses signs and symptoms.
- Completes a comprehensive physical examination including developmental assessment.
- Clinically evaluates findings.
- Makes a nursing, selected medical or differential diagnosis.
- Formulates objectives for the care of the patient/family.
- Carries out selected diagnostic tests and procedures.
- Interprets selected diagnostic tests.
- Prescribes treatment and management of a nursing and/or medical nature.
- Deals with emergencies and urgent needs.
- Initiates and/or implements treatment and management.
- Evaluates care given.
- Modifies treatment and management as indicated by patient/family health status.
- Systematically, concisely and accurately records, on the appropriate forms provided, the data gathered, assessment made, treatment and management instituted, evaluations and modifications, prognosis, dispensation, and any other relevant information.
- Consults with physician when in doubt and in situations beyond the scope of her practice.
- Consults with other nurse practitioners and other members of the health team.
- Acts as consultant to nursing staff re paediatric nursing care problems.
- Demonstrates advanced techniques in paediatric management.
- Makes home visits (follow-up, case finding).
- Supervises the care of the chronically-ill child.

7.3 Educational

- Teaches parents, guardians and children preventive measures, promotion and maintenance of health.
- Counsels parents, guardians and children.
- Participates in inservice education programmes.
- Coordinates and supervises the clinical experience of prospective nurse practitioners.
- Acts as clinical teacher and/or field guide to basic and post-basic students.
- Increases her knowledge and expertise in paediatrics and related specialties through informal and formal continuing education.
- Initiates and/or participates in research activities.

7.43 Administrative

- Participates in planning and policy making regarding health care.
- Participates in the preparation of a budget for agency.
- Organizes and administers the aspect of the health care programme for which she is responsible.
- Delegates care functions to appropriate staff members.

7.44 Public Relations

- Refers patient/family to the appropriate agency as indicated by the health status.
- Cooperates and collaborates with health and allied agencies in providing health care.
- Interprets paediatric nurse practitioner's role to co-workers, other health personnel and the public.
- Assumes leadership for the perpetuation of the nurse practitioner programme and service.

8.0 Educational Programme for the Paediatric Nurse Practitioner

8.1 Intake:

NAJ recommends: The initial course should consist of a minimum of eight (8) Registered Nurse/Midwives fulfilling the requirements as prescribed. At least one candidate with post-basic qualification in education and one with such qualification in administration should be included in the first course. The intake should be increased annually as health care needs dictate.

**8.2 Educational Objectives**

At the end of this programme the paediatric nurse practitioner will be able to do the following.

- 8.21 Utilize the scientific approach to problem-solving and decision-making.
- Gather, organize, critically analyze and interpret nursing/medical data.
  - Record the findings clearly, concisely and systematically.
  - Make a nursing/medical diagnosis, discriminating between normal and abnormal findings.
  - Establish priorities of care.
- 8.22 Prescribe the nursing and medical management.
- Initiate and carry out the regime prescribed.
  - Participate in preventive and health maintenance measures.
- 8.23 Provide health teaching, counselling and guidance to parents and children.
- 8.24 Respond effectively to childhood emergencies.
- 8.25 Display organizational skills.
- 8.26 Display human relation skills with staff and public.
- 8.27 Demonstrate a keen understanding of the paediatric health needs of our society.
- 8.28 Demonstrate knowledge of the role, functions, team relationships and responsibilities of the nurse practitioner.
- 8.29 Provide nurse practitioner services in a variety of settings (primary, secondary and tertiary care situations).

9.0 Curriculum for the Paediatric Nurse Practitioner:

9.1 Proposal for Time Allocation

9.11 Term 1 -- 12 weeks

11 weeks of theory and practice: 5 days weekly x 7 hours daily.

$$11 \times 5 \times 7 = 385 \text{ hours}$$

12th week: Revision, Term Examination, Break.

Ratio of Time: Nursing Content:  $1\frac{1}{2}$  days of 10 hours weekly = 110 hours

Medical Content:  $3\frac{1}{2}$  days or 25 hours weekly = 275 hours

385 hours

9.12 Term 2 -- 12 weeks

11 weeks of theory and practice: 5 days weekly x 7 hours daily.

$$11 \times 5 \times 7 = 385 \text{ hours}$$

12th week: Revision, Final Examination, followed by

ONE WEEK VACATION

Ratio of Time: Nursing Content: 1 day or 7 hours weekly = 77 hours

Medical Content: 4 days or 28 hours weekly = 308 hours

385 hours

9.13 Term 3 -- 12 weeks

12 weeks of clinical practice: 5 days weekly x 7 hours daily.

$$12 \times 5 \times 7 = 420 \text{ hours}$$

Ratio of Time: Nursing Content:  $\frac{1}{2}$  day or 4 hours weekly = 48 hours

Medical Content:  $4\frac{1}{2}$  days or 31 hours weekly = 372 hours

420 hours

9.14 Total Time:  $385+385+420 = 1,190$  hours

Nursing =  $110+77+48 = 235$  hours

Medical =  $275+308+372 = 955$  hours

1,190 hours

This proposal is submitted with the understanding that final allocation of time will be decided upon only after consultation and agreement between representatives of nursing and medicine.

9.2 Proposed Curriculum Outline for Advanced Nursing Practice and Related Topics:

9.21 Term 1 --  $1\frac{1}{2}$  days weekly (10 hours) x 11 weeks = 110 hours.

Orientation.

The Expanded Role of the Nurse .

Advanced Nursing Practice Seminars/Tutorials.

Concepts of Health Care Delivery.

The Epidemiological Approach to Nursing and Health Problems.

Sociology and Nursing Practice.

Human Relations.

Evaluation and Counselling

12th Week: Revision and Term Examination -- Break,

9.22 Term 2 -- 1 day weekly (7 hours) x 11 weeks = 77 hours.

Advanced Nursing Practice Seminars/Tutorials.

The Management of Health Care (Principles of Organization & Administration).

Health Education.

Evaluation and Counselling.

12th Week: Revision and Final Examination.

9.23 Term 3 --  $\frac{1}{2}$  day weekly (4 hours) x 12 weeks = 48 hours.

Advanced Nursing Practice Seminars/Tutorials.

Evaluation and Counselling.

ONE WEEK VACATION

Curriculum content includes, theory, observation and related practice. It is envisaged that this content, with possible modifications resulting from evaluations, will constitute the nursing component of the curriculum for all nurse practitioner courses.

The nursing input, as proposed above, must be seen in relation to the medical content suggested in Appendix 1, attached.

It is our view that the dovetailing of these two strands of the curriculum, with details of content and time allocation, is a job for the Curriculum Committee proposed elsewhere in this Paper.

THE DEVELOPMENT OF COMMUNITY MEDICINE AT THE CORNWALL  
REGIONAL HOSPITAL, MONTEGO BAY

A. INTRODUCTION:

On the 17th April, 1974, the Saint James Health Department moved into the Cornwall Regional Hospital, Montego Bay, with a view to establishing greater co-ordination of the preventive and curative services in this region.

Traditionally, the practice of curative and preventive medicine has been regarded and treated as separate both by Government and the general public. Hospitals and dispensaries are regarded as places where people attend when they fall ill, while most people attending public health clinics are basically well. Although many illnesses have their origin in the environment in which people live, a coordinated approach to the epidemiology of disease and to the delivery of health care has been lacking. A closer working relationship between the two medicines at all levels is therefore very essential.

B. AREAS OF CO-ORDINATION ALREADY ACHIEVED:

At the time the Cornwall Regional Hospital was being planned in the 1960's, it is fortunate that the planners had the foresight to envisage and implement in the structure of the hospital, a department of preventive medicine and public health. One must pay tribute to Doctor Jeffery Wilson and his team of planners that an ideal (it was just that in the 1960's), should be an ideal whose time has now come.

Co-ordination and a certain amount of integration has been achieved in the last six months in the following areas:-

1. PAEDIATRICS:

(a) All mothers of babies delivered in hospital are given an appointment to attend the post-natal clinic at the hospital approximately six weeks after delivery. Appointments for this visit are made when the mother and baby are discharged from the maternity ward. When the baby is brought to the post-natal clinic, B.C.G. vaccination is given as a preventive measure.

(b) Mantoux testing of all children in the Children's wards is being done by the Public Health Nurse. If the result is negative, B.C.G. vaccination is given before the Child is discharged provided there are no contra-indications. If the child is discharged before the result is received, follow up is done by the Health Department.

(c) A specialist Paediatrician (or his Registrar) examines babies at the Post Natal clinic every Wednesday. Patients requiring treatment are treated at this clinic and drugs prescribed from the Hospital pharmacy. Follow up visits are done by the Public Health Nurses and the District Midwife. The Paediatrician also refers to the Health Department for follow up babies suffering from Malnutrition, gastroenteritis, etc. thus establishing an important link between the patient in the hospital and at home.

## 2. OBSTETRICS AND GYNAECOLOGY:

Close relationship has been established between this department and the Health Department; e.g.:

(a) When a mother has a baby in the hospital, the post-partum nurse (who visits the Maternity wards daily) tries to motivate her to plan her family at a time when she is most receptive to this advice. At this time she is supplied with contraceptives on request and given an appointment to attend the Post-natal clinic at the hospital which is run concurrently with a Family Planning Clinic.

(b) Services of a specialist Gynaecologist (or Registrar) are now available:

- (i) to perform Tubal Ligation on patients who request this operation.
- (ii) to see patients referred by Public Health Nurses and/or Medical Officer (Health).
- (iii) to give advice on development of rural maternal and child welfare services and to see referrals from rural maternity centres.
- (iv) to assist in the training of members of the health team.

## 3. VISION CARE:

With the help of the Consultant Ophthalmologist at the Cornwall Regional Hospital and the Lions Club of Montego Bay, a programme for Vision Screening in schools was started in the summer of 1974.

At the invitation of the Ministry of Health, a team of Optometrists from the University of Waterloo in Canada came to Montego Bay for a period of 5 weeks and (a) trained Public Health Nurses and teachers from Primary schools in and around Montego Bay in the principles of vision testing, (b) screened a total of 6,790 school children and detected 192 school children with eye defects of which 120 were prescribed glasses. The team has now returned to the Island to fit the school children with glasses free of cost under Canadian International Development Aid.

It is expected that this programme will be continued in the schools in and around Montego Bay commencing in January next year. This programme would be impossible to implement without proper planning and co-ordination between the Ophthalmologist at Cornwall Regional Hospital and the Health Department. A glaucoma survey is also being planned for early 1976.

## 4. PSYCHIATRY:

With the establishment of the child guidance clinic at the Cornwall Regional Hospital, Public Health Nurses now attend this Clinic with the Child Psychologist and arrange for follow-up of cases in their homes as and when required. The Child Psychologist also attends the Child Welfare Clinic run by the Health Department at Union Street every fortnight. Counselling of young mothers specially pregnant teenagers, is also undertaken at this clinic.

Cases are being referred by the Consultant Psychiatrist to the Health Department for follow-up. The Consultant Psychiatrist has also reserved one afternoon every week for case-referrals by Public Health Nurses from rural areas. A special referral form has been prepared for this purpose.

5. SKIN & V.D.:

Investigation of Venereal Disease and its treatment was formerly done at the V.D. Clinic on Harbour Street, Montego Bay, under the control of the Health Department.

When the Health Department removed to Cornwall Regional Hospital, the V.D. Clinic was integrated into the Hospital Services:

- (1) Preliminary Investigations and follow-up of cases is being done by the Health Department.
- (2) Laboratory investigations are carried out by two Technicians from the former V.D. Clinic who have now been assigned to the Pathology Department of the Hospital.
- (3) Treatment of all V.D. cases is done at the Hospital Out-patients.

This integration has resulted in a greater number of patients attending for treatment as they are now treated like any other out-patient and the stigma of attending a V.D. Clinic has been removed.

The skin and V.D. Specialist from the Kingston Public Hospital now attends at Cornwall Regional Hospital on two days in the month dividing his time between seeing referrals for skin diseases and referrals from the V.D. Investigator and nurses.

6. FAMILY PLANNING:

(a) With the removal of the Health Department from Union Street, the old Health Department Offices there were converted into a Community Health Clinic centre where the following clinic services are provided:-

- (a) Family Planning
- (b) Maternal and Child Health
- (c) Food Handlers Clinic
- (d) Immunizations
- (e) Health Education
- (f) Nutrition Demonstrations

(b) The Post-partum clinic in the Health Department at the Hospital liaises very closely with the Obstetrics and Gynaecology Department and also operates as a full time Family Planning Clinic.

7. UNDERGRADUATE TRAINING FOR U.W.I. MEDICAL STUDENTS:

Medical Students from the U.W.I. have been undertaking their field training in Social and Preventive Medicine in the Parishes of St. James and Hanover for a number of years and they have continued to do so since the Health Department moved into the Cornwall Regional Hospital.

C. RECOMMENDATIONS FOR COMMUNITY MEDICINE:  
REGIONAL SERVICES BASED AT CORNWALL REGIONAL HOSPITAL:

It has been shown above that there is considerable scope for development of a programme in Community Medicine on a regional basis at the Cornwall Regional Hospital. The first step towards this would be to initiate training programme for both medical and paramedical staff to enable them to deliver comprehensive Community Health Care services outside the hospital setting.



Residents in Community Medicine will work in any of the three parishes comprising the region and will in fact be assigned as early as possible to the Hanover Community Health Project. It is proposed to develop a similar project in St. James during 1975 and then extend to Trelawny the following year.

If the above proposals are accepted in principle, steps can be taken to prepare a budget for this programme. Concurrent with this training, it is important that nurses and paramedical personnel be given inservice training to fit them for the role that they will be called upon to play in the future.

  
.....  
Dr. A. J. D'Souza,  
Senior Medical Officer (Health),  
Regional,  
Cornwall Regional Hospital,  
Montego Bay.

## ANNEX C

### DRAFT PROJECT DESCRIPTION FOR PROJECT AGREEMENT

#### I. Project Description

It is the purpose of this project to assist the Cornwall County Health Administrative Office to decentralize the primary health care delivery system, improve management, curriculum and training of health care providers and support services.

#### II. Objectives

- a) An improved and routinized training system.
- b) Training unit established in Cornwall County Health Administrative Office.
- c) Improved and decentralized health management systems in Cornwall County.
- d) Improved data collection system.
- e) Continuing functional analysis of training and work assignments of CHAs, PHNs and PHIs.

#### III. Project Components

##### AID

- 46 man months of U. S. technical assistance in various fields of health care.
- 36 man months of support for Cornwall County project director.
- 27 man months of in-country technical assistance to assist in surveys and as interim supervisors.
- 2 persons to receive long term training in health administration and statistics.
- 4 man weeks for evaluation.
- Sufficient commodities and equipment to help equip training classrooms (training aids) and related equipment.

GOJ

- Salaries for necessary staff to meet objectives.
- Administrative and operating costs.
- Necessary logistical support.
- Training facilities.
- Training coordinator.
- PHN training tutor.
- Interim supervisors.

IV. Implementation

The project will be implemented by the Cornwall County Health Administrative Office/MOHEC. Technical assistance will be provided through one or more AID contracts with appropriate individuals and/or institutions with demonstrated capability in primary health care delivery. The contractor(s) will attempt to develop the capacity and expertise of the Cornwall County Health Administrative Office (CCHAO) and Training Unit by providing operational guidance and on-the-job training to MOHEC health workers. Personnel selected for training will be personnel assigned to the CCHAD.

Training curriculum and training courses will be developed and implemented, and required training of personnel involved in the system undertaken. Improved management and information collection systems will be devised and implemented.

V. Evaluation

In the implementation plan joint evaluations are scheduled annually. The 1977 evaluation will provide AID and GOJ project managers with an indication as to the direction and progress of the project and recommendations for revised project outputs and other

remedial action, if necessary. Subsequent evaluations will continue to indicate progress or lack of it, and recommend corrective action, if necessary and determine if there is any basis to continue or to formally plan project's scheduled termination beyond the original three-year plan.

An important element to these evaluations will be the availability of data collected in the implementation of the project under the improved information systems segment.

VI. Financial Contributions  
U. S. Contribution

AID agrees to obligate from FY 76 funds an amount not to exceed \$175,000 for the following purposes: \$65,000 for one long term curriculum design/trainer specialist, \$30,000 for Functional Analysis specialist and local assistance, \$15,000 for Information Systems specialist, \$25,000 for Management Systems specialist, \$16,000 for 2 long-term participants. \$7,500 for Interim Supervisors, \$5,000 for project evaluation and \$11,500 for contingencies.

GOJ Contribution

The GOJ agrees to contribute during the first project year the equivalent of \$370,000 for salaries of Cornwall County Health personnel, operating and logistic support, medicine and equipment connected with the primary health care delivery in Cornwall County.

**REPORT ON CONSULTATION**  
**HANOVER PARISH PROJECT -- JAMAICA**

Dr. Carl E. Taylor  
and  
Mr. Robert J. Armstrong

January 1976

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**REPORT ON CONSULTATION  
HANOVER PARISH PROJECT -- JAMAICA**

**Dr. Carl E. Taylor and Mr. Robert Armstrong**

**I. INTRODUCTION**

**A. Purpose of Consultation**

1. Verification of reported impact on nutritional status and mortality in Hanover Parish.

2. Evaluation of program implications of Hanover project experience for Jamaica.

3. Suggestions for further program development as the national program of integrating health, nutrition and family planning through the use of Community Health Aides is expanded.

**B. Scope of this Report**

Manifestly, a brief consultation visit must limit itself to focussed essentials. This report, therefore, concentrates on two areas of activity. First, our concern with the Hanover Nutrition Project as it has been conducted since 1972 is mainly with estimating the extent to which positive results were achieved with a preliminary estimate of cost. Secondly, we also have attempted to evaluate, within the perspective of international experience, the overall program implications of the experience thus far with Community Health Aides. The potential for developing services which really do reach the poorest sectors of Jamaican society with cost/effective services integrating health, nutrition and family planning needs to be judged frankly and objectively. This is especially important now because the integrated approach is the stated objective of Jamaican policy and of the U.S. AID mandate from Congress.

The Hanover Project was begun in July 1973 in eastern Hanover parish and in July 1974 in western Hanover. The project's main goal was to reduce infant and young child mortality (under one and 1-3 years) by reducing the prevalence of malnutrition in the area among these children. This was to be accomplished through the use of a Community Health Aid (CHA) who would set up monthly clinics in rural areas within walking distance of all homes in her area. She would also make periodic visits to all homes in her area where malnourished children lived.

The administrators of the project, who were from Cornell, had no voice in the selection of the CHAs. They had been selected earlier and had no special qualifications other than being literate. The CHAs had all received broad, extensive training in various aspects of health from a manual published by the University of the West Indies (UWI). It was generally felt however, that this manual was too lengthy and covered too many subjects for the CHAs to have retained a large percentage of what was taught. In addition, the CHAs received training directly related to nutrition at the start of the project.

At their monthly clinics the CHAs weighed children and plotted their weights on Gomez charts, provided food supplements to the mothers of malnourished children, and counseled these mothers in the selection of better foods for their children. CHAs also visited all Grade III malnourished children weekly to check on their progress and weigh them. Grade II malnourished children were visited weekly initially. This was later reduced to twice a month. Healthy children were visited once a month to pick up any children who might have become malnourished since they were last seen in the clinic.

During the first year that the project was in effect the mortality of children one month to four years of age was found to have dropped about 50%. The prevalence of malnutrition dropped about 75% but there was little change in the incidence of malnutrition.

### III. VERIFICATION OF DATA FROM HANOVER NUTRITION PROJECT

#### A. Mortality Results

It is claimed that young child mortality declined by 50% after the project was in effect for 1 year. It was impossible to verify this completely due to the limited amount of time available and the fact that the death records were spread over a wide geographic area. However, three of the nine local registrars in East Hanover were visited and mortality data for the period from July 1971 to June 1975 was abstracted from their records. This was compared with the data the researchers collected from these registrars and data submitted by the registrars to the Registrar General's Office in Spanishtown. The data was gathered from the Registrar General's Office by travelling to Spanishtown and meeting with the Registrar General, Mr. Pantry, and his assistant for about 2 hours. They were both very cooperative and provided the necessary records promptly even though the system is not automated. A three-way comparison is shown in Table I of Appendix A and a two-way comparison in Table II. While the data from each of the sources shows slight variation, there is no doubt that they are all consistent with a drop in mortality of 50%.

#### B. Incidence and Prevalence Results

Since the beginning of the project, the prevalence of malnutrition has declined by about 75% in both East and West Hanover according to Dr. Alderman. This claim was even harder to verify than the one on mortality since the records are scattered all over Hanover Parish in the hands of 150 CHAs. Several of these were visited, some at home and some in a clinic setting. Their records were examined but no attempt was made to collect "hard data." Several substantial numbers of

Gomez Charts were examined. There were the inevitable few incomplete charts and some with no weights plotted at all. However, most charts were filled out and they showed a remarkably consistent pattern of Grade II children becoming Grade I within a very few months of entering the program. Furthermore, they tended to remain Grade I and regression to Grade II was rare. Grade III children also showed improvement but the improvement usually took longer and was achieved by a smaller percentage of the children than among Grade II children. On the basis of the checking that was done, it is impossible to say if the reduction in prevalence was 75% but a definite and substantial reduction in malnutrition was seen. No claims were made concerning a reduction in the incidence of malnutrition as it appears that the project had little effect on incidence. It was Dr. Patterson's opinion that the results were mainly curative rather than preventive. Based on the limited data, we tend to agree. Our major reservation about the data, therefore, concerns the measurement of the reduction in the incidence of malnutrition because of the possibility that new cases were not searched for as diligently as cases that existed at the beginning of the study.

C. Cost

Calculation of costs can proceed on several levels. There are the limited direct costs attributable solely to the nutrition program or incremental sums outside the regular budget. But it must be assumed that these sums by themselves would not have produced the program effects which have been measured and were effective only because of ongoing program activities. As a minimum there should be added an estimate of the regular program costs which were diverted to the nutritional project activities. Finally, since the GOJ intent is to proceed with integrated rural services for health, nutrition and family planning it is clearly of the utmost practical value to get an estimate of the

Data were not available to us that would have permitted definitive cost accounting. We had to rely on verbal estimates by those most involved in program direction supplemented by a limited amount of budgetary information. The rough listing of these approximations include some identified data gaps which will have to be filled in by more careful economic calculations.

1. Nutrition Project Costs--Hanover Parish--1975

Personnel:

Community Health Aides--148 @ \$1,612	1/3 time	\$79,525
Public Health Nurses--6 @ \$5,000	1/10 time	3,000
Cornell Staff and Medical Students (1974--\$16,000)		18,000
Food Supplements (foreign aid)		
Drugs and Supplies		4,000
Transport		4,500
Administrative Support		11,000
Referral to Hospital--free service paid from GOJ budget		
Physical Facilities--discounted capital and maintenance		
Research Costs--Cornell		

2. Hanover Parish Rural Program--Total Costs

Personnel:

Cornell Staff and Medical Students		\$ 18,000
Community Health Aides--148 @ 1,612		238,576
Public Health Nurses--6 @ \$5,000		30,000
Midwives--20 @ \$3,500		70,000
Assistant Nurses--2 @ \$4,000		8,000
Food Supplements (foreign aid)		
Drugs and Supplies		4,000
Transport		4,500
Administrative Support		11,800
Referral to Hospital--free service paid from GOJ budget		
Physical Facilities (discounted capital and maintenance)		

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3. St. James Parish Rural Program--1975

Personnel (to cover population outside Montego Bay--60,000 population)

UWI Medical Students	\$ 18,000
Community Health Aides--112 @ \$1,612	180,544
Public Health Nurses--10 @ \$5,000	50,000
Midwives--20 @ \$3,500	70,000
Assistant Nurses--2 @ \$4,000	8,000
Food Supplements (foreign aid)	
Drugs and Supplies	4,000
Transport	4,500
Referral to Hospital--free service paid from GOJ budget	
Administrative Costs	11,800
Facilities--discounted capital and maintenance	

ii. Proposed Department of Community Medicine of Cornwall Regional Health Service--perhaps as Satellite of UWI.

Consultants in community medicine	\$ 14,000
Senior registrar in community medicine	10,000
Residents in community medicine--6 @ \$8,000	48,000
Subsistence for medical students--6 @ \$1,560	9,360

Data from the original Elderslie Nutrition Project were said to have shown that in a population of slightly over 1,000 the direct cost of the intensive nutrition projects services were provided for \$2.50 per capita per year. The very incomplete data on the Manover Nutrition Project show that direct costs were \$2.01 per capita per year even without including some important major components which have been listed in the budget as being supplied from other sources such as food supplements and hospital referral costs.

The overall costs for Manover Parish which has had the participation of Cornell medical students and St. James Parish which has been run mostly by existing health department staff give a comparative estimate of what might be projected for activities in the Cornwall Regional Health Service Parish to be \$4 per capita per year St. James Parish \$2.50 per capita per year

If full participation of UWI is achieved, an additional input of \$0.30 per capita per year should be added. The continuing Cornell participation at past levels of expenditure would be \$0.30 per capita per year.

All cost estimates are in Jamaican dollars.

#### IV. EVALUATION OF PROGRAM IMPLICATIONS

Comments made under this heading are highly selective. They identify major issues that emerged during our discussions which were potential strengths that need to be developed or evident gaps that need attention. Our assessments are derived largely from international experience and this is admittedly tentative in its relevance since the present program is clearly in the forefront of current worldwide trends in promoting services to reach the rural poor.

##### A. Integration of Services for Health, Nutrition and Family Planning

GOJ policy has moved strongly toward integration with the incorporation into the health system of the family planning services previously provided independently by the Family Planning Board. The transition aspects of the transition have been largely overcome and Dr. M. Pastorek, the previous medical Director of the Family Planning Board, is now the Principal Medical Officer of the Government's MCH, family planning, and nutrition program. A major forward thrust in extending the availability of family planning has been achieved through an expanding program for commercial distribution of pills and condoms.

In the Hanover Parish Project a focussed effort was made to simplify and rationalize nutrition services for working age children. In the next stage of moving to an equivalent emphasis in the areas of MCH and family planning a major emphasis will be needed in simplifying and rationalizing DHA involvement. This requires careful community diagnosis of the prevalence of illness and cost/effort analysis of alternative services. For the purpose of identifying of skin complaints take

visits but most of these could be handled by simple treatments made available to CHAs. Similarly, integrated services can effectively develop family planning entry points in care routines for mothers and children. Immunization programs need to be systematized. Many other similar tasks can be worked out only in the field with continuing feedback from CHAs.

### B. Criteria for CHA Selection

There were three major criteria employed in the selection of the CHAs:

- 1) She must live in the district in which she would serve;
- 2) She should be close to the people culturally as well as geographically; and
- 3) She should be literate.

### C. Role Allocation for CHA

The most frequent misapprehension of health professionals involved in rural programs is that it is assumed that developing simplified services will be simple. Because of this there is a tendency to take casually the process of streamlining services that are considered safe and appropriate for health workers that do not fall in recognized professional or occupational groups. Much of this process is designed more to protect professional stereotypes than with any clearly defined sense of what will do most good at least cost either in expenditure or relative safety for people. An almost universal fallacy is the assumption that hospital procedures can be adapted to field situations. The fact is that most standard hospital routines have been developed primarily for the convenience of personnel. In services provided in homes and communities the primary concern must be the convenience of patients. This is conditioned largely by the reality that the people are in control and the health worker tends to be the person in direct contact with the hospital.

Role allocation then requires careful field testing. The notions of professionals and supervisors must not be taught as revealed truth to ignorant trainees. Instead the process of testing local adaptations of field procedures needs to be extended incrementally based on feedback from the CHAs field experience of what works under Jamaican conditions.

Experience in other programs suggests that an appropriate procedure is to classify health needs and resources in functional terms. This would lead then to definition of activities within functions that are of highest priority in meeting health needs with available resources. Each activity then could be classified according to the ease with which it can be routinized. Those that are readily routinized are assigned to CHAs while those requiring more complex judgement or technical skills are referred appropriately. An interesting fact is that much of the medical treatment of common conditions is among the most easily routinized of all health care activities.

## B. Training of Community Health Aides

### 1. Initial Training

Something obviously was done right in the preparation of the CHAs because of their motivation and apparent effectiveness. We have the impression, however, that this may have been more due to the natural capability of these women than to the training itself. The training manual is impressive but seems too sophisticated for everyday use. The initial training program was intensive but implemented under great pressure of time. Conversations with the group in the UWI Department of Community Medicine under the leadership of Dr. Kenneth Standard and Sister Olive Ennever who should be given the credit for initiating the whole idea of recruiting and training CHAs indicated that they are prepared to move on to the next stage of effort. They would like to use a simpler working manual concentrating on "how-to-do-it" statements or routines.

An unexpected benefit of the rapid implementation of the training activity was the fact that they did not have time to establish formal institutional training. They therefore used field training teams which ran courses right out in the field using any available building or church. The trainees lived at home and were never detached emotionally from their environment. This pattern of teaching makes eminent good sense for the future because of not being too elaborate. Although it may be inconvenient for trainers, it is probably also good for them, since the training will tend to be more realistic if the trainers are coping with the actual problems CIAs will face.

In the Harangwal Project in India we found that training could be shortened from 6 months to 6 weeks by the simple expedient of alternating one week of academic work with one week in the field. The field assignment was a one to one preceptorship in which the trainee lived and worked with an experienced and effective role model. After such a week of practical work they returned to the next academic week full of questions to be answered and this motivation stimulated a capacity to learn from one explanation that would otherwise have taken much repetition to grasp.

In any case, as the Cornwall County program is expanded there will be need for systematization and some standardization. The teaching should not be a watered down medical or nursing training especially in the usual format of formal courses in medical subjects. Instead, if the role definition has been clearly worked out through job analysis the behavioral objectives of the training should be sharply focussed on preparing for the defined duties.

#### E. Supervision of CIAs

The CIAs have received very little supervision, most of it coming from medical students from Cornell and UWI. The number of medical students available varied but averaged about 3 or 4 at any given time. They had to supervise all the CIAs in Hanover parish (about 150). In the student's leave (e.g., at Christmas) there is no supervision available. That supervision they provide is good but much more is needed.

F. Training Value of Field Experience to Medical and Nursing Students

One of the most enlightened uses that is being made of the Hanover and St. James Projects is to use them to provide field experience to medical students. The Cornell students in Hanover Parish and the UWI students in St. James Parish are given discrete responsibility which they find challenging and stimulating. There is some of the usual concern about academic guidance but this should not be compulsive and restrictive otherwise the value of field flexibility will be lost. The preceptor relationships should be manifested mainly in a faculty member's availability to answer questions rather than to provide intensive direction. It was especially impressive to hear a UWI student speak of how his experience had been a "revelation" and was leading him to reconsider his career goals. Dr. DeSouza indicated that a similar program could be developed for nurses after the nursing school in Cornwall Regional Hospital is opened.

G. Coverage

The first job of the CHAs was to conduct a census in their districts. They, therefore, had a listing of all the children under 4 that they expected to see at the first clinic. Not all of these children came to the clinic. Furthermore, some children showed up at the clinic who were not counted in the census. It was generally felt that the project was successful in reaching the target population with upwards of 90% of the children being included in most districts. As time passed all newly born children should have entered the project at the age of 1 month. Some, perhaps most, did but there was definitely a higher percentage of children missed as the project progressed than were missed originally.

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A typical CHA serves about 500 people. When her duties are mainly related to nutrition (education, surveillance, record keeping, etc.) she is not fully occupied and could serve more people, perhaps as many as 1,000, this could be expanded to 2,000--provided they are geographically close enough to the CHA so that she could easily walk to their homes. If the CHA has other duties to perform (e.g., family planning, preventive medicine, maternal and child care) then a ratio of 500:1 seems more realistic than 1,000:1.

ii. Flow of Information

Presently there is little flow of information after it is collected by the CHA. Medical students do collect some but they have neither the time nor the training to analyze it effectively. There should be a flow of information from the CHA to her supervisor to the Program Director with provision being made by the Program Director for the analysis of the data. Since the gathering of health information is so important to the country, they should experiment with several simple methods of data collection and analysis.

i. Physical Facilities

The buildings used by the CHAs for clinics are spartan at best. However fancy and/or modern facilities are not needed. It is much more important to have many clinics so that no patient or CHA has far to walk to get to one. For the project to succeed barriers to participation, such as long distances between patients and the clinics, must be avoided.

The first training programs and the manual were organized by them. In the research at Elderslie and Hanover Parish they made critically important field input. The medical students that have participated on an elective basis have been tremendously effective and have themselves been greatly influenced. It is good therefore, that the present plans for expanded field activities hold promise of regular and continuing involvement. We strongly recommend that funding be found for the Department of Community Medicine in Cornwall Health Services which would be affiliated with the University.

2. Potential Role of Cornell Medical School

Much of the field impetus that has made the Hanover Parish nutrition project effective has come from the 150 medical students that have served under Cornell auspices. There will be particular benefit in students from Jamaica and the U.S. working together in the field. It is clear that the director of the expanded field program in Cornwall County should be Jamaican but there would be considerable opportunity for field collaboration with a Cornell faculty member also being involved in field activities. This is particularly important because of the need for personnel with commitment to rural work as the program is expanded. We recommend therefore that a continuing flow of medical students from Cornell and other U.S. medical students be maintained and be expanded within the range of available funding.

*Cont*

*... to have people coming down for training ...*

3. Future Role of Community Health Aides

There is much discussion in international agencies such as WHO and AID about the potential of workers coming from the communities being served. There are few examples around the world of truly effective programs. The great hazard is going to come as the program is expanded and the all important sense of commitment and concern may be diluted

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or lost. Concerted efforts need to be made to preserve dedication as the very necessary process of improving the technological aspects of the services are implemented. A particular problem is to prevent the CHAs from being totally co-opted by the health system so that they become less and less community representatives as they become more and more health workers.

One proposed decision that will ensure a break in the CHAs capacity to bridge the interface between the health system and the communities is to over expand the population coverage expected of each worker. The average ratio of 1 to 500 population that now prevails may be too low. But from experience in several countries the ratio of 1 to 2000 is certainly too much. Perhaps a compromise level of 1 to 1000 may be appropriate. One reason for this is that the workload will greatly increase as integrated services are established. At present a major part of the job is just walking from one house to another. The walking is the same regardless of how many tasks are carried out in each place. But the time allocated to walking increases geometrically as the radius of coverage is increased.

The present stage is crucial in working out the right balance in job analysis and training. We recommend strongly that an intensive effort be mounted to conduct functional analysis of CHA activities and that this should lead to more careful definition of their expanded role in integrated services.

#### D. Potential Supervisors

Thus far medical students have supplied whatever supervision has been given to the CHA's. Furthermore, their involvement should not be considered permanent. The need for supervisors will increase enormously as the project expands to include all 14 parishes. Therefore, medical students can not be relied upon to supply all of the supervision,

even if both Cornell and UMI supply students. It is recommended that, because of their experience, Cornell's future role should be to help in the expansion of the program to all 14 parishes rather than to be restricted to one or two parishes.

Many other persons were considered as possible supervisors including:

- Public Health Nurses
- Staff Nurses
- Auxiliary Nurses
- Nurses
- Dietetic Assistants
- Public Health Inspectors
- Public Health Educators
- Family Planning Educators
- Family Planning Nurses.

People from any, or several, of these occupations would make acceptable supervisors but the following criteria should be kept in mind:

- 1) the number of persons available;
- 2) the amount of time they could devote to supervision; and
- 3) the willingness of the profession to participate.

It is also recommended that some intermediate supervision be given by more competent CHA's. In addition to reducing the number of higher level supervisors needed, this would provide an avenue of advancement for CHA's that they now lack.

#### E. Expanded Training for the Expanded Program

In an earlier section (IV. D) on training some issues were discussed relating both to initial and continuing education. We recommend that a detailed educational analysis be undertaken based on the functional analysis to make the most effective and efficient use of the limited training personnel and facilities that are available.

## F. Role of the Members of the Health Team

In any expanding program that is attracting much attention and funding there is the problem that other members of the health team may feel left out and this will lead to less effective work on their part or total antagonisms. In rural Jamaica this may be happening with two categories of workers who may feel that they are being bypassed. The public health inspectors are responsible for environmental sanitation and general health promotion. They are reputed to be minimally effective and much undervalued. But their work continues to be important. Similarly the midwives are said to be only partially effective and in competition with the traditional midwives or lunas. Here again the role relationships clearly need to be worked out much more effectively.

We recommend that both of these groups be included in the planning for the expanded program and that special training be provided so that they can participate more effectively.

## G. Improving Coverage

Extra effort must be expended at least once a year to bring all children born since the last census into the program. The simplest way to do this is to update the census annually and to inquire at every home as to whether they know of any children who were born since that last census was taken. Also coverage can be improved by making sure that the boundaries of the areas served by neighboring CIAs do not leave any gaps that would enable some families to live outside of both areas.

J. Decentralization of Authority to County Level from the Ministry of Health

Reports from health department personnel involved in field work indicate that a considerable continuing constraint on effective performance is the need to refer minor decisions to Kingston. Many minor personnel and logistic matters are bound in administrative rules that require referral when they could be better resolved by those who understand the local situation. There are a growing number of evident management issues which point to the necessity for a large degree of decentralization as the Cornwall County program is established. Mr. Vincent, the new Permanent Secretary, expressed his conviction that decentralization and peripheral integration of services represent the principal management steps that need to be taken.

Some specific issues that were raised are:

1) The need to have the PS delegate authority to the County administration so that a financial controller there could authorize disbursements within the allocated budget.

2) Personnel control can be handled best locally, especially the allocation of nurses and midwives to ensure coverage and perhaps recruitment within civil service listings.

3) Vehicle maintenance is extremely serious for a program so dependent on mobility. We were told of instances in which cars were towed over the mountains to Kingston for repair rather than having the work done locally.

4) An equipment shop locally would facilitate repairs of medical equipment.

5) A matter of great importance in continuity of services is to have supplies decentralized by having a branch unit of the medical stores set up locally.

6) Each peripheral unit should have two way communication available to make communication effective right out to the periphery because personnel would be able to get their own supplies.

7) Decentralization needs to be tied in closely with effective supervision to maintain quality control, and this requires adequate transport.

8) Also important to prevent abuse of decentralization is an effective information system. This should be highly focussed on planning and evaluation requirements and should have rapid feedback to the field.

## V. SPECIFIC SUGGESTIONS

### A. Involvement of Participating Groups in Planning

A manifest difficulty in the past which is very much on everyone's minds is the lack of communication among the various groups who have been involved in the work. There are various complementary approaches to preventing future breakdown of relationships.

An obvious measure is to have an advisory committee with representation from responsible agencies which will meet frequently especially during the initial phases of the work. There are also the usual management methods of ensuring proper distribution of documents and appropriate clearance of decisions. A method that has worked in some international collaborative studies has been to have an annual conference in the field - certainly outside of Kingston or Portago Bay. Those attending would be representatives of all the collaborating groups and the personnel actively working in the field including some CHAs. The first need is to get policy decisions, whether by officials, by the committee or by this conference on some of the basic issues raised in this document and other problems that emerge.

### B. Role of Medical Schools and Medical Students

#### 1. Potential Role of UWI

The whole idea of Community Health Aides grew out of the Department of Social and Preventive Medicine's field project in Augustown.

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## h. Feedback of Information to the CHA's

The information flow from the CHA to the supervisor to the Program Director, while essential, is not enough. There should be feedback to the CHA's concerning the impact of the program on malnutrition. It is always encouraging to know that someone is using the data you have collected, and doubly so when the beneficial aspects of the work of the CHA's can be directly demonstrated.

## VI. CONCLUSIONS

We endorse the proposal for expanding the Hanover Nutrition Project to a program for integrated services for nutrition, health and family planning for all of the community.

We feel that the program impact that has been reported is valid and are surprised mainly by the rapidity with which it has been achieved.

We have identified some policy areas where decisions are needed and some constraints and issues that should be incorporated into planning.

We are concerned especially that the bricks and mortar emphasis in the World Bank proposal may move the whole activity within walls in an institutionalization that will impede the progress toward getting maximum community participation through community health aides.

The greatest strength of the present program is that Community Health Aides really do seem to spend most of their time in homes, partly because they have nowhere else to work. Anything that will break this pattern could weaken rather than strengthen the eventual program.

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FEDERAL BUREAU OF INVESTIGATION  
UNITED STATES DEPARTMENT OF JUSTICE

Dr. Carl E. Boyer  
and  
Dr. Robert J. Anderson

January 1976

THE NATIONAL COMMUNITY HEALTH AIDES PROJECT  
IN JAMAICA

Dr. Carl E. Taylor and Dr. Robert Armstrong

I. INTRODUCTION

A. Purpose of Consultation

1. Verification of reported impact on nutritional status and mortality in Hanover Parish.
2. Evaluation of program implications of Hanover project experience for Jamaica.
3. Suggestions for further program development as the national program of integrating health, nutrition and family planning through the use of Community Health Aides is developed.

B. Scope of this Report

Manifestly, a brief consultation visit must limit itself to focused essentials. This report, therefore, concentrates on two areas of activity. First, our concern with the Hanover Nutrition Project as it has been conducted since 1972 is mainly with estimating the extent to which positive results were achieved with a preliminary estimate of cost. Secondly, we also have attempted to evaluate, within the perspective of international experience, the overall program implications of the experience thus far with Community Health Aides. The potential for developing services which really do reach the poorest sectors of Jamaican society with cost/effective services integrating health, nutrition and family planning needs to be judged frankly and objectively. This is especially important now because the integrated approach is the stated objective of Jamaican policy and of the Caribbean Community.

INTRODUCTION

The Hanover Project was begun in July 1973 in eastern Hanover parish and in July 1974 in western Hanover. The project's main goal was to reduce infant and young child mortality (under one and 1-3 years) by reducing the prevalence of malnutrition in the area among these children. This goal was to be accomplished through the use of a community health worker (CHW) who would set up monthly clinics in rural areas within walking distance of all homes in her area. She would also make periodic visits to all homes in her area where malnourished children lived.

The administrators of the project, who were from Cornell, had no voice in the selection of the CHWs. They had been selected earlier and had no special qualifications other than being literate. The CHWs had all received broad, extensive training in various aspects of health from a manual published by the University of the West Indies (UWI). It was generally felt however, that this manual was too lengthy and covered too many subjects for the CHWs to have retained a large percentage of what was taught. In addition, the CHWs received training directly related to nutrition at the start of the project.

At their monthly clinics the CHWs weighed children and plotted their weights on Gomez charts, provided food supplements to the mothers of malnourished children, and counseled these mothers in the selection of better foods for their children. CHWs also visited all Grade III malnourished children weekly to check on their progress and weigh them. Grade II malnourished children were visited weekly initially. This was later reduced to once a month. Healthy children were visited once a month to pick up any children who might have become malnourished since they were last seen in the clinic.

During the first year that the project was in effect the mortality of children one month to four years of age was found to have dropped about 50%. The prevalence of malnutrition dropped about 75% but there was little change in the incidence of malnutrition.

III. VERIFICATION OF DATA FROM HANOVER NUTRITION PROJECT

A. Mortality Results

It is claimed that young child mortality declined by 50% after the project was in effect for 1 year. It was impossible to verify this completely due to the limited amount of time available and the fact that the death records were spread over a wide geographic area. However, three of the nine local registrars in East Hanover were visited and mortality data for the period from July 1971 to June 1975 was abstracted from their records. This was compared with the data the researchers collected from these registrars and data submitted by the registrars to the Registrar General's Office in Spanishtown. The data was gathered from the Registrar General's Office by travelling to Spanishtown and meeting with the Registrar General, Mr. Pantry, and his assistant for about 2 hours. They were both very cooperative and provided the necessary records promptly even though the system is not automated. A three-way comparison is shown in Table I of Appendix A and a two-way comparison in Table II. While the data from each of the sources shows slight variation, there is no doubt that they are all consistent with a drop in mortality of 50%.

B. Incidence and Prevalence Results

Since the beginning of the project, the prevalence of malnutrition has declined by about 75% in both East and West Hanover according to Dr. Alderman. This claim was even harder to verify than the one on mortality since the records are scattered all over Hanover Parish in the form of 154 TTAs. Several of these were visited, some at home and some in a clinic setting. Their records were examined but no significant trends or details were observed. The official records of

Gomez Charts were examined. There were the inevitable few incomplete charts and some with no weights plotted at all. However, most charts were filled out and they showed a remarkably consistent pattern of Grade II children leaving Grade I within a very few months of entering the program. Furthermore, they tended to remain Grade I and regression to Grade II was rare. Grade III children also showed improvement but the improvement usually took longer and was achieved by a smaller percentage of the children than among Grade II children. On the basis of the checking that has been done, it is impossible to say if the reduction in prevalence was 75% but a definite and substantial reduction in malnutrition was seen. No claims were made concerning a reduction in the incidence of malnutrition as it appears that the project had little effect on incidence. It was Dr. Patterson's opinion that the results were mainly curative rather than preventive. Based on the limited data, therefore, concerns the measurement of the reduction in the incidence of malnutrition because of the possibility that new cases were not searched for as diligently as cases that existed at the beginning of the study.

### C. Cost

Calculation of costs can proceed on several levels. There are the limited direct costs attributable solely to the nutrition program as incremental sums outside the regular budget. But it must be assumed that these sums by themselves would not have produced the program effects which have been measured and were effective only because of ongoing program activities. As a minimum there should be added an estimate of the regular program costs which were diverted to the Nutritional Project activities. Finally, since the GOJ intent is to proceed with integrated rural services for health, nutrition and family planning it is a matter of some practical value to get an estimate of the

Data were not available to us that would have permitted a definitive cost accounting. We had to rely on verbal estimates by those most involved in program direction supplemented by a limited amount of budgetary information. The rough listing of these approximations include some identified data gaps which will have to be filled in by more careful economic calculations.

1. Nutrition Project Costs--Hanover Parish--1975

Personnel:

Community Health Aides--148 @ \$1,612	1/3 time	\$79,525
Public Health Nurses--6 @ \$5,000	1/10 time	3,000
Cornell Staff and Medical Students (1974--\$16,000)		18,600
Food Supplements (foreign aid)		
Drugs and Supplies		4,000
Transport		4,500
Administrative Support		11,800
Referral to Hospital--free service paid from GOJ budget		
Physical facilities (discounted capital and maintenance)		
Research Costs--Cornell		

2. Hanover Parish Rural Program--Total Costs

Personnel:

Cornell Staff and Medical Students		\$ 18,000
Community Health Aides--148 @ 1,612		238,576
Public Health Nurses--6 @ \$5,000		30,000
Midwives--20 @ \$3,500		70,000
Assistant Nurses--2 @ \$4,000		8,000
Food Supplements (foreign aid)		
Drugs and Supplies		4,000
Transport		4,500
Administrative Support		11,800
Referral to Hospital--free service paid from GOJ budget		
Physical Facilities (discounted capital and maintenance)		

3. St. James Parish Rural Program--1975

Personnel (to cover population outside Montego Bay--60,000 population)

UWI Medical Students	\$ 18,000
Community Health Aides--112 @ \$1,612	180,544
Public Health Nurses--10 @ \$5,000	50,000
Midwives--20 @ \$3,500	70,000
Assistant Nurses--2 @ \$4,000	8,000
Food Supplements (foreign aid)	
Drugs and Supplies	4,000
Transport	4,500
Referral to Hospital--free service paid from GOJ budget	
Administrative Costs	11,800
Facilities--discounted capital and maintenance	

4. Proposed Department of Community Medicine of Cornwall Regional Health Service--perhaps as Satellite of UWI.

Consultants in community medicine	\$ 14,000
Senior registrar in community medicine	10,000
Residents in community medicine--6 @ \$5,000	48,000
Subsistence for medical students--6 @ \$1,560	9,360

Data from the original Elderslie Nutrition Project were said to have shown that in a population of slightly over 1,000 the direct cost of the intensive nutrition projects services were provided for \$2.50 per capita per year. The very incomplete data on the Hanover Nutrition Project show that direct costs were \$2.91 per capita per year even without including some important major components which have been listed in the budget as being supplied from other sources such as food supplements and hospital referral costs.

The overall costs for Hanover Parish which has had the participation of Cornell medical students and St. James Parish which has been run mostly by voluntary medical personnel staff give a comparative estimate of what might be achieved in similar situations in St. James Parish (population 10,000) at a cost of \$2.50 per capita per year.

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If full participation in MCH is achieved, an additional input of \$0.30 per capita per year should be added. The continuing shortfall participation at past levels of expenditure would be \$0.30 per capita per year.

All cost estimates are in Jamaican dollars.

#### IV. EVALUATION OF PROGRAM INDICATORS

Grants made under this heading are highly selective. They identify major issues that are raised during our discussions which were potential strengths that need to be developed or evident gaps that need attention. Our indicators are derived largely from international experience and this is admittedly tentative in its relevance since the present program is clearly in the forefront of current worldwide trends in providing services to reach the rural poor.

##### A. Integration of Services for Health, Nutrition and Family Planning

GOJ policy has moved strongly toward integration with the incorporation into the health system of the family planning services previously provided independently by the Family Planning Board. The transition aspects of this transition have been largely overcome and Dr. M. Patterson, the previous medical director of the Family Planning Board, is now the Principal Medical Officer of the Government's MCH, family planning, and nutrition program. A major forward thrust in extending the availability of family planning has been achieved through an expanding program for commercial distribution of pills and condoms.

In the Hanover Parish Project a focussed effort was made to simplify and rationalize nutritional services for training the children. In the next stage of moving to an equivalent emphasis in the areas of MCH and family planning a major emphasis will be needed in simplifying and rationalizing MCH involvement. This requires careful community diagnosis of the prevalence of MCH-related problems, analysis of alternative interventions for the most common and serious complaints to

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visits but cost of these could be handled by simple treatments made available to CHAs. Similarly, integrated services can effectively develop family planning entry points in care routines for mothers and children. Immunization programs need to be systematized. Many other similar tasks can be worked out only in the field with continuing feedback from CHAs.

### B. Criteria for CHA Selection

There were three major criteria employed in the selection of the CHAs:

- 1) She must live in the district in which she would serve;
- 2) She should be close to the people culturally as well as geographically; and
- 3) She should be literate.

### C. Role Allocation for CHA

The most frequent misapprehension of health professionals involved in rural programs is that it is assumed that developing simplified services will be simple. Because of this there is a tendency to take casually the process of streamlining services that are considered safe and appropriate for health workers that do not fall in recognized professional or occupational groups. Much of this process is designed more to protect professional stereotypes than with any clearly defined sense of what will do most good at least cost either in expenditure or relative safety for people. An almost universal fallacy is the assumption that hospital procedures can be adapted to field situations. The fact is that most standard hospital routines have been developed primarily for the convenience of personnel. In services provided in homes and communities the primary concern must be the convenience of patients. This is conditioned largely by the reality that the people are in control and the health worker tends to be the worker-in-direct contact to the hospital.

Role allocation then requires careful field testing. The notions of professionals and supervisors must not be taught as revealed truth to ignorant trainees. Instead the process of testing local adaptations of field procedures needs to be extended incrementally based on feedback from the CHAs field experience of what works under Jamaican conditions.

Experience in other programs suggests that an appropriate procedure is to classify health needs and resources in functional terms. This would lead then to definition of activities within functions that are of highest priority in meeting health needs with available resources. Each activity then could be classified according to the ease with which it can be routinized. Those that are readily routinized are assigned to CHAs while those requiring more complex judgment or technical skills are referred appropriately. An interesting fact is that much of the medical treatment of common conditions is among the most easily routinized of all health care activities.

## 6. Training of Community Health Aides

### 1. Initial Training

Something obviously was done right in the preparation of the CHAs because of their motivation and apparent effectiveness. We have the impression, however, that this may have been more due to the natural capability of these women than to the training itself. The training manual is impressive but seems too sophisticated for everyday use. The initial training program was intensive but implemented under great pressure of time. Conversations with the group in the UWI Department of Community Medicine under the leadership of Dr. Kenneth Standard and Sister Olive Unnever who should be given the credit for initiating the whole idea of recruiting and training CHAs indicated that they are prepared to move on to the next stage of effort. They would like to use a simpler working manual concentrating on "how-to-do-it"

An unexpected benefit of the rapid implementation of the training activity was the fact that they did not have time to establish formal institutional training. They therefore used field training teams which ran courses right out in the field using any available building or church. The trainees lived at home and were never detached emotionally from their environment. This pattern of teaching makes eminent good sense for the future because of not being too elaborate. Although it may be inconvenient for trainers, it is probably also good for them, since the training will tend to be more realistic if the trainers are coping with the actual problems they will face.

In the Harangul Project in India we found that training could be shortened from 6 months to 6 weeks by the simple expedient of alternating one week of academic work with one week in the field. The field assignment was a one to one preceptorship in which the trainee lived and worked with an experienced and effective role model. After such a week of practical work they returned to the next academic week full of questions to be answered and this motivation stimulated a capacity to learn from one explanation that would otherwise have taken much repetition to grasp.

In any case, as the Cornell County program is expanded there will be need for systematization and some standardization. The teaching should not be a watered down medical or nursing training especially in the usual format of formal courses in medical subjects. Instead, if the role definition has been clearly worked out through job analysis the behavioral objectives of the training should be sharply focussed on preparing for the defined duties.

E. Supervision of CHAs

The CHAs have received very little supervision, most of it coming from medical students from Cornell and UMI. The number of medical students available varied but averaged about 3 or 4 at any given time. They had to supervise all the CHAs in Harangul parish (about 150). In the student's home (or at their own) there is no supervision available. That supervision they provide is good but much more is needed.

## F. Training Value of Field Experience to Medical and Nursing Students

One of the most enlightened uses that is being made of the Hanover and St. James Projects is to use them to provide field experience to medical students. The Cornell students in Hanover Parish and the UWI students in St. James Parish are given discrete responsibility which they find challenging and stimulating. There is some of the usual concern about academic guidance but this should not be compulsive and restrictive otherwise the value of field flexibility will be lost. The preceptorial relationships should be manifested mainly in a faculty member's availability to answer questions rather than to provide intensive direction. It was especially impressive to hear a UWI student speak of how his experience had been a "revelation" and was leading him to reconsider his career goals. Dr. DeSouza indicated that a similar program could be developed for nurses after the nursing school in Cornwall Regional Hospital is opened.

## G. Coverage

The first job of the C's was to conduct a census in their districts. They, therefore, had a listing of all the children under 4 that they expected to see at the first clinic. Not all of these children came to the clinic. Furthermore, some children showed up at the clinic who were not counted in the census. It was generally felt that the project was successful in reaching the target population with upwards of 90% of the children being included in most districts. As time passed all newly born children should have entered the project at the age of 1 month. Some, perhaps most, did but there was definitely a higher percentage of children missed as the project progressed than were missed originally.

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A typical CHA serves about 500 people. When her duties are mainly related to nutrition (education, surveillance, record keeping, etc.) she is not fully occupied and could serve more people, perhaps as many as 1,000, this could be expanded to 2,000--provided they are geographically close enough to the CHA so that she could easily walk to their homes. If the CHA has other duties to perform (e.g., family planning, preventive medicine, maternal and child care) then a ratio of 500:1 seems more realistic than 1,000:1.

## II. Flow of Information

Presently there is little flow of information after it is collected by the CHA. Medical students do collect some but they have neither the time nor the training to analyze it effectively. There should be a flow of information from the CHA to her supervisor to the Program Director with provision being made by the Program Director for the analysis of the data. Since the gathering of health information is so important to the country, they should experiment with several simple methods of data collection and analysis.

### I. Physical Facilities

The buildings used by the CHAs for clinics are spartan at best. However fancy and/or modern facilities are not needed. It is much more important to have many clinics so that no patient or CHA has far to walk to get to one. For the project to succeed barriers to participation, such as long distances between patients and the clinics, must be avoided.

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### B. Role of Medical Schools and Medical Students

#### 1. Potential Role of UWI

The whole idea of Community Health Aides grew out of the Department of Social and Preventive Medicine's field project in Augustown.

APPENDIX A

Table 1

Records of 4 years of age between 7/1/74 and 6/30/75 in the areas of Rt. 2, 60, Chester Castle, and Hopewell as found in three independent checks.

	Records of Hanover Project	Search by Evaluation Team	Spanishtown Records
<b>Rt. 2, 60</b>			
File, 1 year on 5/27/74	Yes	No	Yes
File, 1 year on 11/15/74	Yes	No	Yes
File, 1 year on 7/12/75	Yes	Yes	Yes
<b>Chester Castle</b>			
File, 1 year on 3/23/75	Yes	Yes	Yes, but recorded in April
File, 9 mos on 8/1/74	Yes	Yes	Yes, but recorded in July
File intent. age unknown, on 10/10/74	No	Yes	No

APPENDIX A

Table II

Deaths under 4 years of age between 7/1/71 and 6/30/74 in the areas of Mt. Peto, Chester Castle, and Hopewell as found in two independent checks.

(The Denver Project's record for these registrars did not go back beyond 7/1/71.)

	Search by Evaluation Team	Spanishtown Records
<b>Mt. Peto</b>		
Male, 1 year on 11/1/71	Yes	Yes
Female, 1 year on 2/13/72	Yes	Yes
Female, 9 mos on 5/2/72	Yes	No
Male, 1 year on 5/25/72	Yes	Yes, but recorded in June
Male, 3 mos on 6/21/72	Yes	Yes
Male, 1 year on 8/27/72	Yes	Yes, but recorded in December
<b>Chester Castle</b>		
Female, 3 mos on 8/2/71	Yes	Yes
Male, 2 mos on 8/2/72	Yes	Yes
Male, 3 mos on 11/1/72	Yes	Yes
Male, 3 mos on 11/25/72	Yes	Yes, but recorded in December
Male, 2 years on 12/3/72	Yes	Yes
Male, 9 mos on 1/21/73	Yes	Yes
Female, 22 days on 2/22/73	Yes	Yes
Female, 7 mos on 4/25/73	Yes	Yes, but recorded in March
Male, 14 days on 2/19/74	Yes	Yes, but recorded in March
<b>Hopewell</b>		
Unknown, 1 day in 7/71	No	Yes
Unknown, less than 1 day in 9/71	No	Yes
Female, 3 mos on 10/21/71	Yes	Yes
Female, 5 mos on 2/1/72	Yes	Yes, but recorded in March
Female, 1 year on 1/1/73	Yes	Yes
Female, 5 mos on 1/5/73	Yes	Yes

APPENDIX A, TABLE 11 (Continued)

Male, 10 mos on 1/11/73  
Male, 5 days on 11/2/73

Yes  
Yes

Yes  
Yes, but  
recorded in  
February 1974

Male, 2 years on 12/22/73

Yes

Yes, but  
recorded in  
January 1974

Unknown, 14 days in 3/74  
Male, 9 mos on 5/1/74  
Male, 11 mos on 5/1/74

No  
Yes  
Yes

Yes  
Yes  
Yes

or lost. Concerted efforts need to be made to preserve dedication as the very necessary process of improving the technological aspects of the services are implemented. A particular problem is to prevent the CHAs from being totally co-opted by the health system so that they become less and less community representatives as they become more and more health workers.

One proposed decision that will ensure a break in the CHAs capacity to bridge the interface between the health system and the communities is to over expand the population coverage expected of each worker. The average ratio of 1 to 500 population that now prevails may be too low. But from experience in several countries the ratio of 1 to 2000 is certainly too much. Perhaps a compromise level of 1 to 1000 may be appropriate. One reason for this is that the workload will greatly increase as integrated services are established. At present a major part of the job is just walking from one house to another. The walking is the same regardless of how many tasks are carried out in each place. But the time allocated to walking increases geometrically as the radius of coverage is increased.

The present stage is crucial in working out the right balance in job analysis and training. We recommend strongly that an intensive effort be mounted to conduct functional analysis of CHA activities and that this should lead to more careful definition of their expanded role in integrated services.

#### D. Potential Supervisors

Thus far medical students have supplied whatever supervision has been given to the CHAs. Furthermore, their involvement should not be considered permanent. The need for supervisors will increase enormously as the project expands to include all 11 parishes. Therefore, medical students can not be relied upon to supply all of the supervision,

The first training program and the manual were organized by them. In the research at Elderslie and Hanover Parish they made critically important field input. The medical students that have participated on an elective basis have been tremendously effective and have themselves been greatly influenced. It is good therefore, that the present plans for expanded field activities hold promise of regular and continuing involvement. We strongly recommend that funding be found for the Department of Community Medicine in Cornwall Health Services which would be affiliated with the University.

2. Potential Role of Cornell Medical School

Much of the field input that has made the Hanover Parish nutrition project effective has come from the 150 medical students that have served under Cornell auspices. There will be particular benefit in students from Jamaica and the U.S. working together in the field. It is clear that the director of the expanded field program in Cornwall County should be Jamaican but there would be considerable opportunity for field collaboration with a Cornell faculty member also being involved in field activities. This is particularly important because of the need for personnel with commitment to rural work as the program is expanded. We recommend therefore that a continuing flow of medical students from Cornell and other U.S. medical students be maintained and be expanded within the range of available funding.

*at least 20% come from training of*  
C. Future Role of Community Health Aides *and education*

There is much discussion in international agencies such as WHO and AID about the potential of workers coming from the communities being served. There are few examples around the world of truly effective programs. The great hazard is going to core as the program is expanded and the all important sense of commitment and concern may be diluted

even if both Cornell and UMI supply students. It is recommended that, because of their experience, Cornell's future role should be to help in the expansion of the program to all 14 parishes rather than to be restricted to one or two parishes.

Many other persons were considered as possible supervisors including:

- Public Health Nurses
- Staff Nurses
- Auxiliary Nurses
- Midwives
- Dietetic Assistants
- Public Health Inspectors
- Public Health Educators
- Family Planning Educators
- Family Planning Nurses.

People from any, or several, of these occupations would make acceptable supervisors but the following criteria should be kept in mind:

- 1) the number of persons available;
- 2) the amount of time they could devote to supervision; and
- 3) the willingness of the profession to participate.

It is also recommended that some intermediate supervision be given by more competent CHA's. In addition to reducing the number of higher level supervisors needed, this would provide an avenue of advancement for CHA's that they now lack.

#### E. Expanded Training for the Expanded Program

In an earlier section (IV. B) on training some issues were discussed relating both to initial and continuing education. We recommend that a detailed educational analysis be undertaken based on the functional analysis to make the most effective and efficient use of the limited training personnel and facilities that are available.

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F. Role of Health Workers of the Public Health

In any expanding program that is attracting much attention and funding there is the problem that other members of the health team may feel left out and this will lead to less effective work on their part or actual antagonisms. In rural Jamaica this may be happening with two categories of workers who may feel that they are being bypassed. The public health inspectors are responsible for environmental sanitation and general health promotion. They are reputed to be minimally effective and much under utilized. But their work continues to be important. Similarly the nurses are said to be only partially effective and in competition with the traditional midwives or Manas. Here again the role relationships clearly need to be worked out much more effectively.

We recommend that both of these groups be included in the planning for the expanded program and that special training be provided so that they can participate more effectively.

G. Improving Coverage

Extra effort must be expended at least once a year to bring all children born since the last census into the program. The simplest way to do this is to update the census annually and to inquire at every home as to whether they know of any children who were born since that last census was taken. Also coverage can be improved by making sure that the boundaries of the areas served by neighboring CIAs do not leave any gaps that would enable some families to live outside of both areas.

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## ii. Feedback of Information to the CHAs

The information flow from the CHA to the supervisor to the Program Director, while essential, is not enough. There should be feedback to the CHAs concerning the impact of the program on malnutrition. It is always encouraging to know that someone is using the data you have collected, and doubly so when the beneficial aspects of the work of the CHAs can be directly demonstrated.

## VI. Summary

We endorse the proposal for expanding the Hanover Nutrition Project to a program for integrated services for nutrition, health, and family planning for all of Carroll County.

We feel that the program impact that has been reported is valid and are surprised mainly by the rapidity with which it has been achieved.

We have identified some policy areas where decisions are needed and some constraints and issues that should be incorporated into planning.

We are concerned especially that the bricks and mortar emphasis in the World Bank proposal may cover the whole activity within walls in an institutionalization that will impede the progress toward getting maximum community participation through community health aides.

The greatest strength of the present program is that Community Health Aides really do seem to spend most of their time in homes, partly because they have nowhere else to work. Anything that will break this pattern could weaken rather than strengthen the eventual program.

US/AID TECHNICAL ASSISTANCE

Request - 1977

**Ministry/Department:** Health and Environmental Control  
**Project Title:** Primary Health Care Cornwall County  
**Time Required:** 3 years  
**Type of Assistance:** Grant/Personnel/Training  
(a) Primary Care Curriculum Design and Training Specialist  
(b) Information System Consultant  
(c) Management Systems Consultant  
(d) Functional Analysis Consultant

**Supporting Background:**

The Government of Jamaica has recognized that the Development of health services which in the past have been mainly hospital oriented should be decentralized with more emphasis given to the rural health services particularly in the area of Maternal Aid, Childcare, Family Planning and Nutrition Services.

This decentralization of health services is designed to develop a cost effective national health care delivery systems integrating curative preventive personal and environmental health services.

The county of Cornwall was selected because of the different elements of health services which already exist and are functioning more or less as separate entities, e.g., CHA of the Department of Social and Preventive medicine of the UWI., the Ministry of Health Officers and the Officers engaged in the pilot Nutrition Project initiated by the Cornell University. These units will be co-ordinated and will become one comprehensive Health Care Project.

Results of feasibility surveys conducted in the Cornwall area prove beyond doubt that the delivery of rural health services in future must predominantly be health centre based and the Government of Jamaica is committed to this principle and requests the assistance of US/AID and the World Bank in helping to fulfil these objectives in the fields of MCH, Family Planning and Nutrition.

Objectives & Goals:

The primary objective of its project is to redesign and implement improvements in the administrative, training and service delivery structure of the Cornwall County Primary Health Care system which will act as a pilot project for possible later implementation in the other two counties.

The specific goals established are:

- (a) to reduce malnutrition in young children through outreach services;
- (b) to provide adequate antenatal care to 90% of pregnant women (14000 individuals)
- (c) to reduce the percentage of deliveries unattended by trained health personnel to zero;
- (d) to provide adequate post natal services to 70% (12,375) of newly delivered women;
- (e) to have at least 33% of the women of reproductive age Family Planning devices (30,000);
- (f) to provide adequate preventive health services to 90% (27,500) of children under two years of age and to 70% (32,750) of children between 2-5 years of age;
- (g) to achieve adequate immunization coverage for 80% (61,500) of children under 5 years of age;
- (h) to provide nutrition surveillance services for 90% (27,500) of children under 2 years of age.

Implementation of the Project:

The IBRD in conjunction with AID will assist the Government of Jamaica in developing, implementing and evaluating a centralized supply system in Cornwall.

The IBRD loan will supply 60 vehicles for use in this project and will also provide training in vehicle maintenance.

A Personnel Management and Planning Unit will be established to review job mobility, delegation of authority and functions and incentive systems from a management view-point.

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**NATIONAL PLANNING AGENCY**

**P.O. BOX 634,**

**KINGSTON,**

**JAMAICA**

ANY REPLY OR SUGGESTIVE COMMENT  
ON THIS CORRESPONDENCE SHOULD BE  
ADDRESSED TO CHIEF TECHNICAL  
DIRECTOR, NATIONAL PLANNING AGENCY,  
12 CAMP ROAD, KINGSTON 4.

File No. 743/03

2nd June, 1976.

Dear Mr. Campbell,

I hereby submit on behalf of the Government of Jamaica the Ministry of Health and Environmental Control - Primary Health Care Project.

This project has been given a very high priority rating by the Government of Jamaica as it is designed to develop a cost effective National Health Care delivery systems integrating curative, preventive personal and environmental health services.

It is now the tendency to adopt the regionalistic approach in our projects, therefore this project integrating all health services in the Cornwall region we hope will receive the favourable consideration of US/AID authorities.

Your usual kind attention to this matter will be appreciated.

Yours truly,

*L. White*  
L. White (Mrs.)  
for Chief Technical Director.

Mr. Frank Campbell,  
Food for Peace Officer,  
US/AID  
43 Duke Street,  
Kingston.

**PART IV - SCHEDULE I****Training Unit Cornwall  
County Health Office**

	<u>OOJ</u>	<u>AID</u>
1N M/M Curriculum/training Specialist (Primary Care)		\$ 97,500.00
20 M/M P.H.N. tutor (CHT Curriculum)	\$ 15,000	
20 M/M P.H.N. Training Coordinator	22,500	

**Functional Analysis**

6 M/M Functional Analysis Consultant		20,000.00
4 Round trips		1,100.00
180 days per diem @ 40.00		7,200.00
12 M/M Field Supervisor		6,000.00
48 M/M 4 Interviewers		16,000.00
12 M/M Research Assistant		6,000.00
Forms and computer costs		3,000.00

**Information Systems**

10 M/M Information Systems Specialist		30,000.00
4 Round trips		1,100.00
300 days per diem @ 40.00		12,000.00

**Management Systems**

12 M/M Management Systems Specialist		30,000.00
4 Round trips		1,100.00
365 days per diem @ 40.00		11,600.00
36 M/M Cornwall County Project Director (Dr. D'Souza)	65,000	30,000.00

**Long Term Training**

1 Yr. Management Systems	300	8,000.00
1 Yr. Information Systems	300	8,000.00

**Interim Supervisors**

27 M/M 3 Medical Students	22,500	22,500.00
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Evaluation

12 M/weeks Evaluation consultants (fees)		10,000.00
3 Round trips (2 people)		1,500.00
84 days per diem @ 40.00		3,400.00
Supplies & Equipment		<u>5,000.00</u>
		341,000.00
10% Contingency		<u>34,100.00</u>
Total	\$ 105,600.00	\$ 375,100.00

SCHEDULE II

Schedule of Technical Assistance

- 18 M/M Curriculum/Training Specialist
- 6 M/M Functional Analyses Consultant
- 12 M/M Field Supervisor
- 48 M/M 4 Interviewers
- 12 M/M Research Assistance
  - Forms and computer time
- 10 M/M Information Systems Specialist
- 12 M/M Management Systems Specialist
- 36 M/M Cornwall County Project Director
  - Salary topping-off (Dr. D'Souza)
- 24 M/M Long Term participant training
- 27 M/M Interim Supervisors (3 medical students @ 9 M/M ea.)
- 12 M/weeks Evaluation consultants
  - Misc. training equipment and office supplies

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APPENDIX A

Table 1

for his under 4 years of age between 7/1/74 and 6/30/75 in the  
of Mt. Pato, Chester Castle, and Hopewell as found in three independent  
checks.

	Records of Hanover Project	Search by Evaluation Team	Spanishtown Records
<b>Mt. Pato</b>			
Male, 1 year on 9/27/74	Yes	No	Yes
Male, 1 year on 11/2/74	Yes	No	Yes
Male, 1 year on 2/12/75	Yes	Yes	Yes
<b>Chester Castle</b>			
Male, 1 year on 3/23/75	Yes	Yes	Yes, but recorded in April
Male, 9 mos on 8/1/74	Yes	Yes	Yes, but recorded in July
Male infant, age unknown, on 10/10/74	No	Yes	No

APPENDIX A

Table II

Deaths under 4 years of age between 7/1/71 and 6/30/74 in the areas of Mt. Peru, Chester Castle, and Hopewell as found in two independent checks.

(The Denver Project's records for those registrars did not go back beyond 7/1/71.)

	Search by Evaluation Team	Spans through Records
<b>Mt. Peru</b>		
Male, 1 year on 11/3/71	Yes	Yes
Female, 1 year on 2/13/72	Yes	Yes
Female, 9 mos on 5/2/72	Yes	No
Male, 1 year on 5/24/72	Yes	Yes, but recorded in
Male, 3 mos on 6/7/72	Yes	Yes
Male, 1 year on 8/27/72	Yes	Yes, but recorded in
<b>Chester Castle</b>		
Female, 3 mos on 8/2/71	Yes	Yes
Male, 3 mos on 8/3/72	Yes	Yes
Male, 3 mos on 10/1/72	Yes	Yes
Male, 3 mos on 11/28/72	Yes	Yes, but recorded in
Male, 2 years on 12/3/72	Yes	December
Male, 9 mos on 1/21/73	Yes	Yes
Female, 22 days on 2/22/73	Yes	Yes
Female, 7 mos on 4/25/73	Yes	Yes, but recorded in
Male, 14 days on 2/19/74	Yes	Yes, but recorded in
<b>Hopewell</b>		
Unknown, 1 day in 7/71	No	Yes
Unknown, less than 1 day in 9/71	No	Yes
Female, 3 mos on 10/21/71	Yes	Yes
Female, 5 mos on 2/22/72	Yes	Yes
Female, 1 year on 1/1/73	Yes	Yes
Female, 8 mos on 1/5/73	Yes	Yes

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APPENDIX A, TABLE 11 (Continued)

Male, 10 mos on 1/18/73  
Male, 5 days on 11/2/73

Male, 2 years on 12/22/73

Unknown, 14 days in 3/74  
Male, 9 mos on 5/4/74  
Male, 11 mos on 6/11/74

Yes	Yes
Yes	Yes but recorded in February 1974
Yes	Yes but recorded in January 1974
No	Yes
Yes	Yes
Yes	Yes

(MONTEGO BAY)

Dr. Anthony J. D'Souza, Senior Medical Officer, Cornwall  
County and Project Director, Cornwall County

Mr. V. E. Gordon, Senior Public Health Inspector  
Grade I, Hanover Public Health Office

Mrs. King, Senior Public Health Nurse, St. James  
Public Health Office

FIELD INTERVIEWS

(HANOVER)

Nurse Harvey, District Midwife, Chester Castle

Mr. Campbell, Public Health Inspector

Mrs. E. Gonzen, Nutrition Officer

(ST. JAMES)

Mrs. Desmond Clark, Public Health Inspector

Mr. Milton Hall, Public Health Inspector

Mr. F. M. Rochester, Chief Public Health Inspector, Grade I

In addition, a number of on the job interviews were conducted  
in the field with other members of the Community Health Team,  
including a number of CHAs.

USAID

Mr. Frank Campbell, General Development Officer

Mr. Charles Campbell, Director

Mr. Nick Mariani, Program Officer

I.B.R.D.

Dr. Ronganathan, Population Programs Department

LIST OF CONTACTS

G.O.J.

(KINGSTON)

Mr. Glen Vincent. Permanent Secretary, Ministry of Health and Environmental Control

Dr. Wynante Patterson, Senior Medical Officer for Health, Nutrition and Family Planning, Ministry of Health and Environmental Control

Dr. Kenneth Standard, Department of Social and Preventive Medicine, University of the West Indies

Mrs. Olive Enniver, Department of Social and Preventive Medicine, University of the West Indies

Dr. K. Laure Padoner, Dept. of Social and Preventive Medicine, University of the West Indies

Mrs. Norma Dumont. Public Health Nurse, Office of Health Education, Ministry of Health and Environmental Control

Mrs. Daisy Goldson, Acting Director, Office of Health Education, Ministry of Health and Environmental Control

Mrs. Sylvia Goldson, Statistician, National Family Planning Board

Dr. Mary Sievwright, Director, Advanced Nursing Unit, University of the West Indies

Mrs. Syringa Marshall-Burnett, Tutor, Advanced Nursing Unit, University of the West Indies

Mrs. Agnes Nicholas, Tutor, Advanced Nursing Unit, University of the West Indies

Mr. Horace A. Tomlinson, Deputy Financial Secretary, Ministry of Finance

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March 9, 1976

Mr. Glen Vincent  
Permanent Secretary  
Ministry of Health & Environmental Control  
21 Slibe Pen Road  
Kingston

Dear Mr. Vincent:

Confirming our conversation during a meeting in your office on March 9.

In a meeting earlier in the day with members of your ministry and a representative of UNH the following was agreed upon:

1. Proceed with the drafting of the Project Paper.
2. Request assistance from AID/Washington for expert assistance of a health planner and a project design specialist. Additionally we will request the services of Dr. Carl Taylor if he is available.
3. The initial drafting to be done in Cornwall.
4. Preparation of the project paper will involve personnel to be selected from MOH and UNH.
5. The project will essentially cover manpower training and the evaluation and developing of improved health care delivery from existing systems. Other elements may be added upon mutual agreement.

The proposed project will have the following goals at the end of project:

Mr. Vincent

-2-

March 9, 1976

1. Increase coverage of women and young children from 500 to 900.
2. Improved health care delivery services in the rural areas of Jamaica.
3. Established training system for health workers.
4. Routinize community health care system at local levels.
5. Implementation of a decentralized health system for improved administration of health care services.
6. This project will complement the IBRD project.

It is our understanding that you concur with the above approach and have accordingly cabled Washington substance of the above and have asked that the consultants arrive no later than March 22. We will keep you advised of developments as they occur.

Sincerely yours,

Charles P. Campbell  
AID Affairs Officer

CC: PWC: Campbell: y

- 3 -

The US/AID Personnel will be responsible for:

- (a) assisting other members of the Cornwall County Training Unit to develop new and revised curricula and training. Training personnel for key administrative and support staff at parish and regional levels;
- (b) assisting the Ministry of Health personnel to develop and improve the skills and knowledge which they will need to manage the information systems after the initial three years of the project and to make appropriate modifications of the systems as required by changing resources and information needs;
- (c) developing the study design and research instruments for the functional analysis of work activities; and
- (d) assisting in the selection and training of field supervisors and field observers and monitoring the collection and editing of data in the field.

Responsibility for Implementation:

This project will be administered centrally by the Project Director who will be the Permanent Secretary of the Ministry of Health and Environmental Control. The Senior Medical Officer for Cornwall will be the Project Director, he will also be responsible for co-ordinating the US/AID grant and the IBRD loan activities in the Cornwall County. Both US/AID and G.O.J. finance officers will share responsibility loan disbursement.

Technical skills in health planning and in basic health training will be provided by AID/W.

Counterpart professional personnel will receive one year participant training in the U.S.A. in the following areas:

- (i) Information Systems
- (ii) Management Systems.

COMMUNITY HEALTH AIDE  
FOR NURSING

The Community Health Aide is a member of the Health Team who has had training to work with families in the Community and to be able to identify problems and bring them to the attention of trained personnel.

She is directly responsible to the Public Health Nurse and is expected to work co-operatively with all members of the Health Team e.g. Staff Nurses at Health Centres, Public Health Inspectors, District Midwives, Family Planning Officers, and other Social Agencies.

The Community Health Aide is required to undertake the following duties:-

1. Teach simple health facts to the people of the community she serves.
2. Give advice on nutrition with emphasis on "food values" and encourage householders to grow nourishing foods in their kitchen gardens. Simple demonstrations should be done where possible to support teaching.
3. Render first aid treatment to members of the community and refer such persons for early medical care.
4. Encourage and advise parents and guardians to have their children completely immunised against infectious diseases.
5. Encourage the regular attendance of infants to the Child Welfare Clinic from an early age.
6. Motivate and refer new clients to Family Planning Clinics, encourage delinquents to attend regularly and stress the importance of using the family planning method as advised at the clinic.
7. Give simple nursing care to those individuals where this type of care is indicated e.g. bed sores (treatment of bed sores), bed sores etc.
8. Assist Public Health Nurses and District Midwives in ensuring that all expectant mothers in the area receive adequate pre-natal and post-natal care.
9. Assist the Public Health Nurse at clinics, mass immunisation programmes, schools, and any other duty as may be found necessary.
10. Advise all known diabetics and hypertensive cases of the importance of taking their treatment regularly and keeping their medical appointments.
11. Advise householders of the importance of keeping their premises clean and getting rid of insects e.g. flies, mosquitoes, etc.

12. Inform the community of all the services available by the Ministry of Health and Environmental Control.
13. Keep the appropriate records as is necessary.

"There is a great responsibility placed on the Community Health Aide to be a good representative of the Health Team. She should earn the respect of the community as one who does not betray confidence."

OBJECTIVES OF THE COMMUNITY AIDE TRAINING PROGRAM

At the time of graduation the CHA will be expected to demonstrate the knowledge and skills necessary to perform the following functions:

1. Provide Personal Health Services

- a. Render first aid treatment to members of the community and refer such persons for early medical care.
- b. Manage common episodic problems, e.g. colds, coughs, skin disorders, gastroenteritis, according to written protocols.
- c. Diagnose malnutrition by application of anthropometric indices, and, according to written protocol, treat the deficient child by education and demonstration at home. Provide food supplements to mothers of malnourished children where required, (e.g. skimmed milk, C.S.M., iron).
- d. Give simple nursing care to those individual where this type of care is indicated, e.g. bed baths, treatment of bed sores, bedmaking.
- e. Monitor (e.g. blood pressure, dipstick urinalysis, diabetes and persons with known hypertension and advise them of the importance of taking their treatments regularly and keeping their medical appointments.
- f. Relieve symptoms of rheumatoid arthritis according to written protocol.
- g. Dispense medications in clinics, under supervision, e.g. iron, expectorant, anti-diarrheal agents, worm treatments.

- 5) Distribute contraceptives not requiring medical supervision (e.g., condoms), to those requesting them.
- d. Provide basic information on venereal disease and stress the importance of control and clinic treatment.
- e. Encourage attendance at clinics and mass immunization programs.
  - 1) Encourage and advise parents and guardians to have their children completely immunized against infectious diseases.
  - 2) Encourage regular attendance of infants to the Child Welfare Clinics from an early age.
  - 3) Encourage all expectant mothers to receive adequate pre-natal and post-natal care at clinic.
  - 4) Encourage regular attendance of clients to Family Planning clinics.

3. Identify and Monitor Individual Health Status

- a. Assess growth and development using specific testing procedures. e.g. weigh child and plot Gomez chart.
- b. Screen for early casefinding and prevention of illness, e.g. visual screening (Snellen chart).
- c. Perform certain tasks necessary to assist Public Health Nurse or physician to determine the nature of the problem.
  - 1) Take temperature
  - 2) Test Urine (dipstick)
  - 3) Measure blood pressure
  - 4) Ova and parasites
  - 5) Hemoglobin and hematocrit (if system simple)

d. Perform certain family planning tasks including:

1. Collect data on social, obstetric, gynecological and contraceptive experience of new clients.
2. Collect data on contraceptive or medical problems from returning clients.
3. Prepare clinic clients for physical examination, including examinations of breasts, abdomen, pelvis and genitalia including cervix.

4. Promote and work as a Member of the Health Care Team

- a) Maintain contact with the household for the members of the health team.
- b) Work cooperatively with all members of the health team, including Public Health Nurses, Staff Nurses at Health Centres, Assistant Nurses, District Midwives, Public Health Inspectors, Family Planning Officers, Nutritional Officers, Nurse Practitioners, Physicians and other staff of health and social agencies.
- c) Assist at clinics, mass immunization programmes, schools and any other duty as may be found necessary.
  - 1) Motivate householders to attend clinics, programmes, etc.
  - 2) Crowd control and patient flow in clinics.
  - 3) Keep records of persons attending clinics, programmes, etc.
  - 4) Visit persons not keeping appointments and encourage attendance.

d) Notify Public Health Inspectors about unsatisfactory sanitary conditions in the community.

e) Inform the community of all the services offered by the Ministry of Health and Environmental Control.

5. Assist in Planning for Health Care Services in Cornwall County

a) Take annual household census of community

b) Keep appropriate records as is necessary, e.g. household visits and daily activities.

Distribution of Services Among Various Types of Facilities

It has become traditional to view health services systems as idealized pyramidal structures, with broad bases representing general or basic services and simple facilities at the community or family level and, with fewer but more specialized (and expensive) facilities in each succeeding level and very specialized in-patient hospital services at the top. Such Pyramidal diagrams tend to over emphasize the hierarchical structure imposed on health services by hospital oriented personnel who dominated thinking and planning in health services. Even though the base of the pyramid was in the community, the lower layers sometimes seemed to have been constructed primarily in order to support the upper ones.

The emerging community focus of health services planning, as exemplified by the Cornwall County project, emphasizes the provision of basic services which are convenient and acceptable to community members in need of them and technically adequate to accomplish health care (and community development) objectives with available resources.

Considerations of cost-effectiveness and benefit distribution lead directly to an emphasis on prevention and health promotion and on widely available basic health services, all reaching the community through integrated systems making extensive use of paramedical workers. Viewed in this perspective, family and community level health services using paramedical workers should deal adequately with the vast majority of health care needs, while other facilities, more costly and less readily

accessible deal only with unusual and unusually complicated problems.

Attempts to diagram health services systems are complicated when the actual behaviour of the consumers and potential consumer's service are considered. For example a family living very near a hospital and relatively far from the nearest facility intended by planners to meet that family's basic care needs, is very likely to seek basic care at the hospital, even if the hospital's facilities, personnel and services are not designed to provide them. The implications of these consumer choices for the health services systems are all the more important when, as is usually the case, facilities for complex services are located in areas of high population density; under such circumstances a high proportion of the population finds that the health facility closest to their homes is a hospital.

Families seeking basic care in facilities intended for complex care are sometimes rejected by the facility; even if the rejection takes the form of referral to a more appropriate facility, they may never receive needed care. If they are accepted for basic care at the complex facility, on the other hand, they may receive unneeded services (e.g. "routine" laboratory tests), the unit costs of the needed care they receive may be much higher than they would have been at a simpler facility and the scarce resources which they use (e.g. physician time) are unavailable for the resolution of

the more complex problems for which they are needed and intended. Such problems are all obstacles to the attainment of the GOJ health care system's distributive, quantitative and qualitative objectives; they warrant serious attention, particularly now, when construction of new facilities and realignment of the functions of health facilities and health workers present opportunities for guided change. One possibility, which has been successful elsewhere, would be to provide basic services to those who seek them in facilities for complex care at contained or contiguous facilities designed to provide basic care, similar in staffing patterns and in function to the other physically separate basic care facilities. Decisions in this area need to consider two cost reduction principles which counterbalance one another here:

(a) The principle of delegation of functions to the least costly person or facility capable of adequately carrying them out. and (b) the principle of eliminating duplication of functions.

Consideration of the types and complexity of services to be provided by the various types of facilities in the Cornwall County Region indicates that a spectrum of services exists and that the various facilities and their personnel are intended to cover overlapping "bands" of that spectrum:



systems. Limited funds will also be allocated for project management costs incurred in project development.

Phasing - Time Schedule

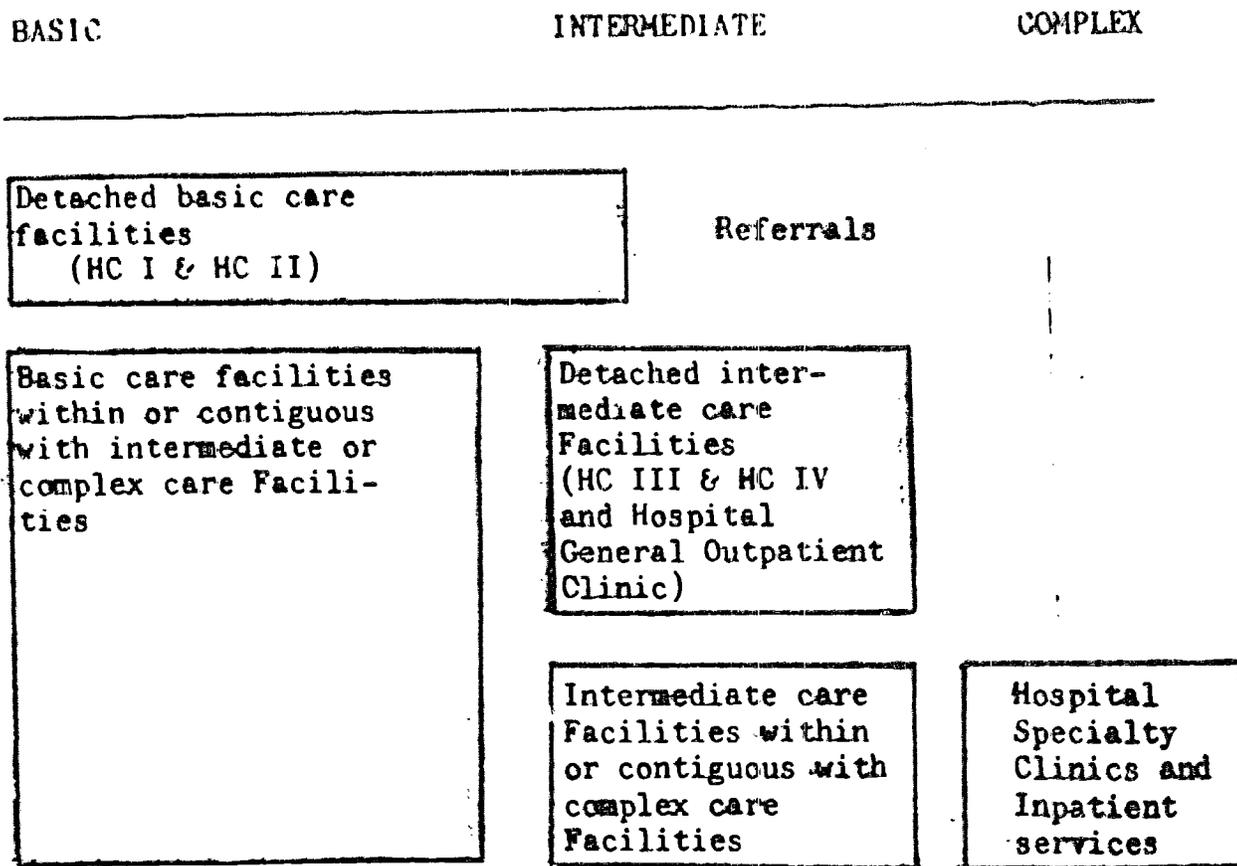
The AID Grant will provide funds to be used during a three year period, divided into three approximately one-year phases with the following primary emphases in each phase:

- |             |   |
|-------------|---|
| Phase One   | Development of training plans and curricula.<br>Development of plans for management improvements.<br>Functional Analysis of existing team roles.  |
| Phase Two   | Implementation of new and revised in-service training programs and of improved management systems.<br>Continued development of revised curricula.   |
| Phase Three | Implementation of new curricula in educational institutions.<br>Operation and evaluation of county health system with improved management systems and personnel trained in revised educational programs.<br>Functional analysis of expanded team roles. |

Added details of the implementation schedule are presented in the chart(s) on the next page(s) [PPTN and GANT Chart, if available, to be attached].

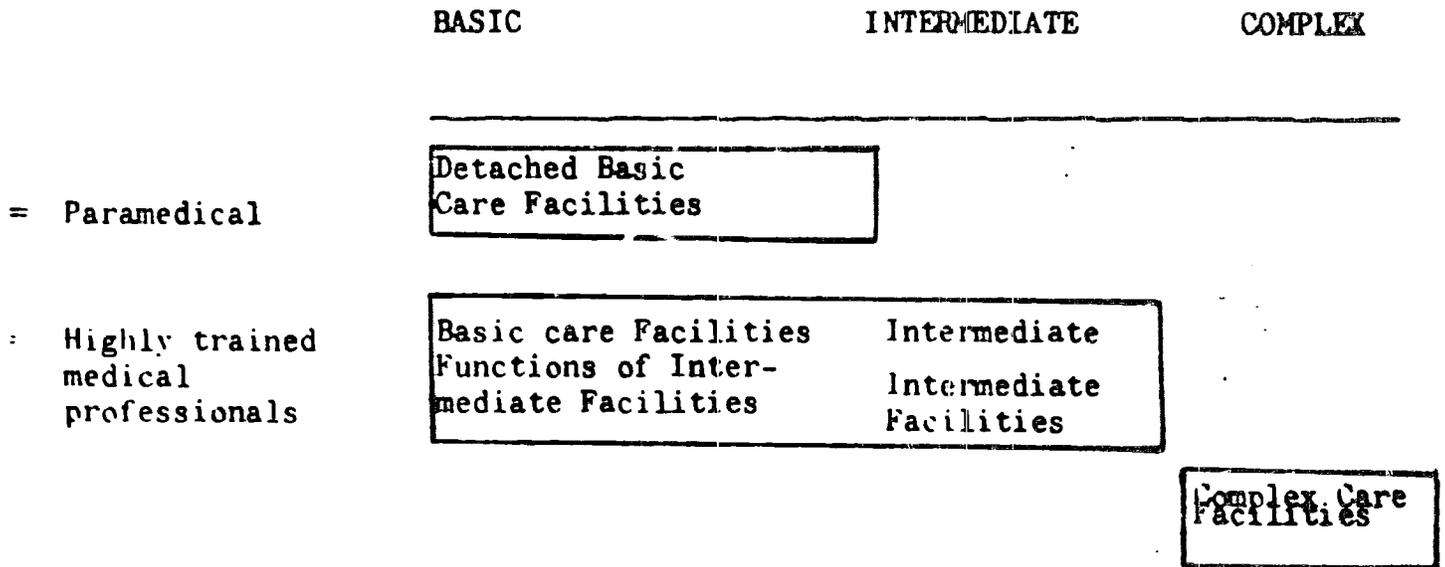
The heavy rectangles indicate blocks of facilities which have great overlap in their functions. A rational pattern of referrals, as indicated would produce patient flows between, rather than within these blocks.

Attempts of patients to directly enter parts of the system intended to handle complexity than their problems warrant produce the problems and inefficiencies discussed earlier in this section. The solution mentioned as part of that discussion would alter the diagram as follows and minimize such inappropriate entries.



\* Entry points for nonemergencies (and most emergencies)

An alternative solution to the problems discussed would be to increase the "range" of services offered by some or all of the facilities through further use of and delegation of functions to paramedical personnel, which should decrease the unit costs of services, free more highly trained personnel to function more appropriately, decrease the number of referrals needed, and probably increase patient satisfaction. Paramedical personnel could work closely with their supervisors.



"Basic care"

"Intermediate Care"

"Complex Care"

(Promotion, simple )  
(preventive and very )  
(simple curative )

(Curative and )  
(complex preven- )  
(tive )

(Complex cura- )  
(tive and very )  
(complex pre- )  
(ventive )

BASIC

COMPLEX

Health Center I (35)

(Referrals)

Health Center II (31)

Health Center III (16)

(Referrals)

Health Center IV (5)

Hospital General Outpatient Clinics (5)

Hospital Specialty Clinics (5)

Hospital Inpatient Services (5)

\* Clients entering overall system  
(initially or for new or recurrent  
problems)

TABLE I

APPENDIX C

CORNWALL COUNTY UNEMPLOYMENT - APRIL AND OCTOBER, 1973

<u>PARISH</u>	<u>OCTOBER 1973</u>			<u>APRIL 1973</u>			<u>WOMEN</u>	<u>OCTOBER 1973</u>	
	<u>LABOUR FORCE</u>	<u>UNEMPLOYED</u>	<u>%</u>	<u>LABOUR FORCE</u>	<u>UNEMPLOYED</u>	<u>%</u>	<u>LABOUR FORCE</u>	<u>UNEMPLOYED</u>	<u>%</u>
TRELAWNY	19000	3400	18	24900	2800	11	6300	2600	41
ST. JAMES	44500	14300	32	47200	13900	29	2010	4600	43
HANOVER	23000	7200	31	22900	4700	21	10400	5000	48
WESTMORELAND	45700	13200	29	43600	10800	25	15700	4500	45
ST. ELIZABETH	54900	10600	19	58900	8700	15	22500	6600	29

SOURCE: THE LABOUR FORCE: DEPT. OF STATISTICS 1973

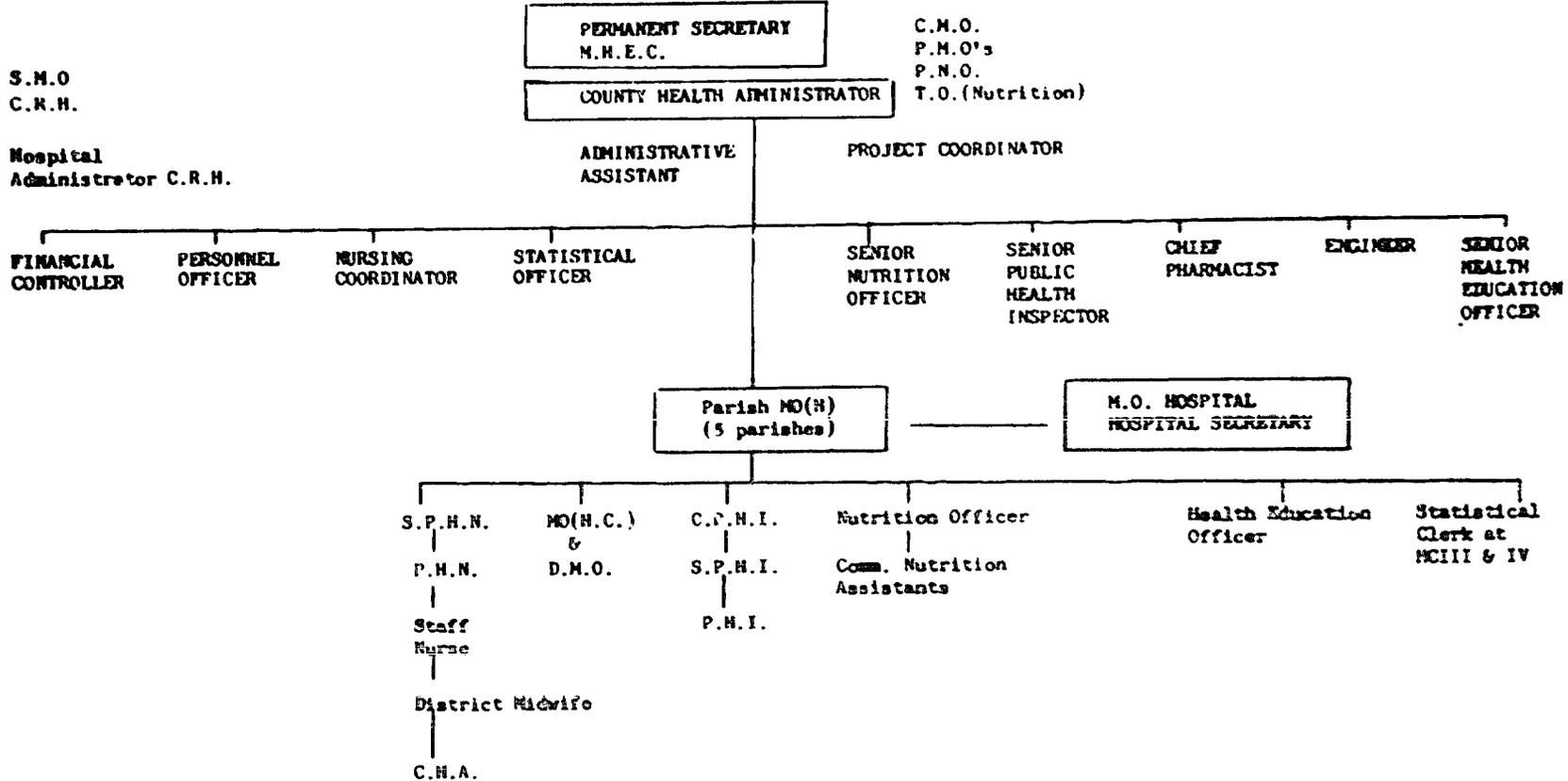
TABLE 2

DEMOGRAPHIC DATA FOR PARISHES OF CORNWALL COUNTY 1974

	(PER 1000 Pop.)		(PER 1000 LIVE BIRTHS)	
	<u>BIRTH RATE</u>	<u>DEATH RATE</u>	<u>INFANT DEATH</u>	<u>STILL BIRTH</u>
<u>JAMAICA</u>	<u>34.4</u>	<u>7.7</u>	<u>32.2</u>	<u>5.2</u>
TRELAWNY	30.6	7.4	34.0	9.6
ST. JAMES	35.1	7.3	28.3	3.5
HANOVER	33.2	8.2	40.1	5.1
WESTMORELAND	29.8	7.6	31.4	3.0
ST. ELIZABETH	30.8	8.0	35.4	5.5

SOURCE: REGISTRAR GENERAL'S DEPT.

MANAGEMENT STRUCTURE - COUNTY HEALTH ADMINISTRATOR'S OFFICE - CORNWALL COUNTY.



STAFFING PLAN - CORNWALL COUNTY

COUNTY LEVEL

COUNTY HEALTH ADMINISTRATOR

\_\_\_\_\_

HC IV PARISH LEVEL

\_\_\_\_\_

HC III

1/24,000

\_\_\_\_\_

HC II

1/12,000

\_\_\_\_\_

HC I

1/4,000

\_\_\_\_\_

CHA

6/5,000

\_\_\_\_\_

COUNTY NURSE SUPERVISOR

\_\_\_\_\_

STHN

SPHN

\_\_\_\_\_

PHN

MW

MW

CHA SUPERVISOR

2/5

\_\_\_\_\_

CHA

COUNTY OF CORNWALL COMMUNITY HEALTH PROJECT by:-

Dr. A.J. D'Souza, Senior Medical Officer (ii) Cornwall Region

1. Objectives & Justification

1.01 The principal objective of the County of Cornwall Community Health object is to provide adequate and comprehensive primary health care to mothers and children in the fields of MCH., F.P. and Nutrition.

1.02 Recent developments in the Community Health Services in the Cornwall Region have shown that it is possible to implement Community Health Programme with demonstrable impact on the health of the Community by utilising the services of "grass roots" health workers known as Community Health Aides. An infrastructure of these Aides has already been established in the parishes of Manover and St. James since 1973 and is being extended at present to the remaining parishes that comprise the County of Cornwall viz. St. Elizabeth, Trelawny and Westmoreland.

1.03 During the past two years that the Community Health Aide Programme has been in operation, C.H.A.'s have actively assisted in identifying the health needs of their communities, motivated mothers in the field of nutrition, family planning and child care and participated in a Rural Nutrition Project in Manover which has within two years succeeded in reducing the incidence of malnutrition in young children and also the mortality in children under 4 years of age by over 50%. C.H.A.'s have therefore been shown to be credible participants in community health activities and capable of sustaining specific health programmes with defined functions reinforced by a hierarchical system of supervision and backup medical facilities. It is proposed to "build on" this infrastructure to strengthen the health care services for mothers and children particularly in the rural areas of the County of Cornwall where 83% of the population live.

1.04 The population of the County of Cornwall (End of year population-1974) is 498,000 of which approximately 18% comprises women in the reproductive age groups (15-44 years) and 49% comprises children under 14 years of age. The population of mothers and children requiring health services is therefore estimated at 67% of the population of the County of Cornwall (\*Figures based on statistical surveys of St. James and Manover)

1.05 The 1970 Nutrition Survey showed that 79.8% of children under five had Nutritional deficiencies. (39% Grade I, 9.4% Grade II and 1.4% Grade III). Protein-calorie malnutrition has been identified as the major cause of mortality and morbidity among young children in Jamaica. Nutritional deficiencies and anaemias among pregnant mothers have also been a cause for concern. The coverage of health care facilities for these groups requires to be improved both qualitatively and quantitatively.

1.06 The percentage coverage for pregnant women attending antenatal clinics was estimated to be about 55% and the average number of visits per woman during pregnancy averages less than two which is far below that desirable for adequate health protection. It is also estimated that 25% of the deliveries are unattended by trained health personnel due to shortage of staff, of the remaining deliveries over 50% take place in hospitals and 20-25% are conducted at home by midwives.

1.07 The G. of J. has placed emphasis on keeping down the rate of population growth as part of its strategy for achieving a better standard of living for the mass of the population. Our aim is to improve the health of our mothers and children by the use of family planning methods for spacing and limitation of families. Although our birth rate has been falling over the years from 40.3 in 1965 to 30.6 in 1974 and although this will result in a reduction in the natural increase of population over a 10-year period of approximately 17% (due to a fairly constant death rate), our continuation rates in family planning have been unsatisfactory and it is believed that an improvement can best be brought about by the efforts of Community health workers who are trained to motivate the people to persist with family planning methods particularly in deep rural areas where exposure to these methods is very low.

1.08 There is no doubt that the delivery of rural health services in future must be predominantly health centre based and the G. of J. is committed to this principle and requests the assistance of the World Bank in fulfilling these objectives in the fields of MCH, F.P and Nutrition.

## 2. SPECIFIC GOALS

2.01 The specific goals established for the Maternal and Child Health Family Planning and Nutrition services for the County of Cornwall for the five years 1976-1980 are :

1. To provide adequate antenatal care to 90% of pregnant women
2. To reduce the percentage of deliveries unattended by trained health personnel to 0
3. To provide adequate postnatal services to 70% of newly delivered women.
4. To have at least 33% of the women of reproductive age groups (15 - 44 years) as continuing users of Family Planning Services
5. To provide adequate preventative health services to 90% of children under two years of age and to 70% of children between 2-5 years of age
6. To achieve adequate immunisation coverage for 80% of children under 5 years of age
7. To provide nutrition surveillance services to 90% of children under 2 years of age

2.02 By providing the above services it is hoped to:

1. Reduce maternal mortality from 14 p. 10,000 to 7 per 10,000
2. Reduce maternal morbidity and complications associated with pregnancy by 50%
3. Reduce incidence of anaemia in pregnant women by 90%
4. Reduce fertility in females (15-44 yrs.) from 180 to 150
5. Reduce birth rate from 30.6/1,000 to 25/1,000

6. Reduce Neonatal death rate from 19 to 15 (p 10,000 live births)
7. Reduce Infant Mortality Rate from 26 to 20 (p. 10,000 live births)
8. Reduce incidence of Malnutrition Grades II and III by at least  
- 60%

3. Organisation of Primary Health Care Facilities

3.01 The present health services offer health care mainly at two levels:-

- (a) Primary health care at Health Centres Dispensaries, Rural Maternity Centres and the Home. Care is delivered by Community Health Aides, Midwives, Assistant Nurses, Public Health Nurses and Physicians. Screening procedures indicate which level of personnel will deliver the care.

Primary Health care services are now delivered in the County of Cornwall at :

- (a) 33 Health Centres
  - (b) 14 Dispensaries (4 of these do not have MCH/FP/Nutrition service)
  - (c) 4 Rural Maternity Centres
  - (d) 48 other Maternal and Child Health clinics
- (b) Secondary Health care is delivered at five Hospitals in the Region viz
    - (i) Cornwall Regional Hospital, Montego Bay
    - (ii) Noel Holmes Hospital, Lucea, Hanover
    - (iii) Falmouth Hospital, Trelawny
    - (iv) Savana-la-Mar Hospital, Westmoreland
    - (v) Black River Hospital, St. Elizabeth

3.02 Ideally all patients for Secondary care should be referred from the Primary level but due to lack of facilities and staff for primary health care in the rural areas this is not being done with the result that all these hospitals are at present providing both primary and secondary care.

3.03 The Medical Officer of Health is the pivot for the primary health care at the parish level and ensures the smooth running of the services provided. The MCH/FP/ Nutrition Services are given within the framework of the preventive health services under the direction of the Medical Officer (Health) from clinics run in facilities provided both by the Ministry of Health and the Ministry of Local Government. This system works reasonably well but the clinics are overcrowded and staff shortages do not allow more sessions to be held.

(b) Proposed Services

3.04 The framework of the project reflects the Government's health strategy particularly in the field of primary health care. Government has recognized that development of health services which has in past administrations been mainly hospital oriented should give due emphasis to the rural health services particularly in the areas of MCH, FP and Nutrition. It is therefore proposed that a full range of primary health care services be provided through a comprehensive network of four types of rural health centres.

3.05 The following is a description of each Type of Health centre together with staff requirements and the activities that will be carried out at each level:

(1) Type I : consists essentially of two examination rooms and a waiting room with a demonstration area and food store. It will be a centre for all health activities in the area and will cater for a population of approximately 4,000 people. It will be staffed by a District Midwife and two Community Health Aides. Services provided will include antenatal, family planning, child health, first aid, nutrition advice and education in child care and personal hygiene. Referrals from other centres for follow-up will be attended to and this type of health centre will also serve as a base for all health related Community Activities eg. health education, periodic nutrition demonstrations to women's groups and teenage educational activities with emphasis on family life education. The staff at this centre will be responsible for home visiting within the geographical catchment area of the centre.

(2) Type II : will have facilities for both curative and preventive health services and approximates the existing 33 Health Centres. The facilities will include two examination rooms, a dressing room, Officer for the area staff, demonstration room with cooking facilities, food store and waiting room. This centre will cater for a population of approximately 8,000 people and will have the following staff:

- (a) Public Health Nurse who will be in charge of the centre
- (b) Public Health Inspector
- (c) Full time registered Nurse
- (d) Midwife (e) Assistant Nurse
- (f) Community Nutrition Assistant (g) Community Health Aides

Weekly visits would be made to this centre by the doctor, pharmacist laboratory assistant and Health Educator from the Type III Health Centre. Dental services will also be provided at this centre which will also serve as a centre for the school dental service.

(3) Type III: This centre will provide a full range of curative and preventive services including some specialist services by arrangement with the Hospital as and when necessary. It will serve an average population of 16,000 and will be open for eight hours daily. The staff will include:

- (a) Full time doctor
- (b) Grade III Public Health Nurse

.....

- (c) Senior Public Health Inspector Grade II
- (d) Administrative Nursing sister
- (e) Staff Nurse/Assistant Nurse
- (f) Midwife
- (g) Health Educator
- (h) Pharmacist
- (i) Dentist and School dental nurse
- (j) Medical Technologist and Laboratory Assistant
- (k) Executive Officer, clerk/receptionist and attendants

The services provided at this centre will include:

- (a) Daily- Curative clinics. Also dental clinics depending on staff availability
  - (b) Weekly - Antenatal, postnatal, F.P., Child Health and Nutrition demonstrations.
  - (c) Referrals to Type IV/Hospital
  - (d) Seeing referrals from Type I and Type II centres related to it
  - (e) Administrative supervision of all Type I and Type II centres related to it
- (4) ~~Type IV Centre will be the administrative centre of the parish and will be located on the Hospital compound in accordance with Government's declared policy of integration of preventive and curative health services. The Type IV Health Centre in St. James will be located in downtown Montego Bay.~~

Basically the Type IV Health Centre will be a Type III Health Centre with the addition of the administrative offices of the Medical Officer of Health and his staff.

3.06 The proposed project will therefore provide for financing of the construction of the following categories of Health Centres:

	<u>New</u>	<u>Remodelled</u>	<u>Total</u>
Type IV	5	-	5
Type III	6	10	16
Type II	13	18	31
Type I	35	-	35
<b>Total</b>	<b>59</b>	<b>28</b>	<b>87</b>

Parish wise the distribution of new Health Centres will be

	<u>IV</u>	<u>III</u>	<u>II</u>	<u>I</u>	<u>Total</u>
Trelawny	1	0	0	5	6
St. James	1	3	3	10	17

.....

	IV	XII	II	I	Total
Hanover	1	0	4	5	10
Westmoreland	1	1	3	9	14
St. Elizabeth	1	1	3	6	11
Total	5	6	13	35	59

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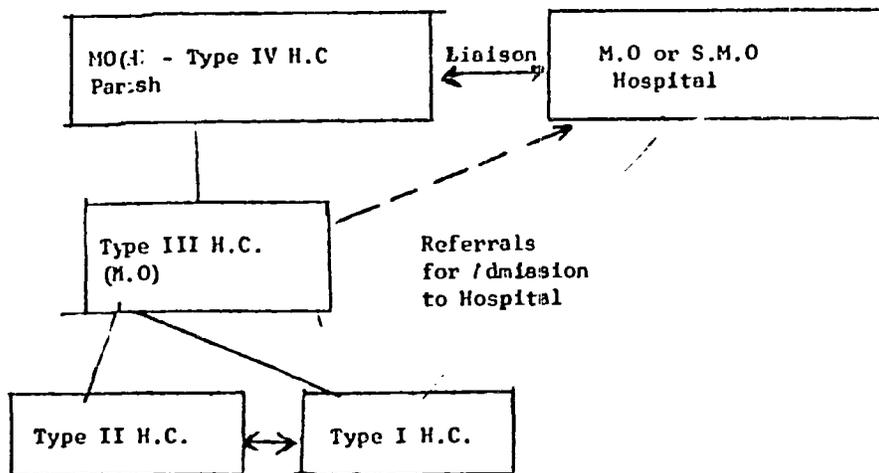
(e) Phased Construction of Health Centres - Cornwall County

3.07 Proposals for phased construction of Health Centres over the period 1976-81 have already been submitted by the Task Force (vide Population Project II, October 1975 Pages 10-15)

3.08 It is requested that in addition to the Construction of Health Centres as proposed for 1976/77, consideration be given to refurbishing at least one additional Health Centre in each Parish so that existing community health programmes can be expanded now instead of waiting till 1978/79. This would also stimulate recruitment of professional people to staff these centres. If this proposal is accepted in principle by the World Bank, an additional list for refurbishing Health centres during 1976/77 will be submitted.

(d) Supervisory relationship (by Type of Health Centre)

3.09 It is important that relationships between the various types of Health Centres be properly defined in order to prevent overlap of functions and for proper utilisation of resources. The following supervisory relationship chart defines "the chain of command" in the system -



3.10 The staff and services provided at each type of H.C. have already been detailed at 3.05 above. They are summarised in terms of supervisory relationship below:

(1) Type I Health Centre is a "basic" community health centre and will provide the home base for the grass roots workers in the fields of N.C.H., F.P. and Nutrition viz. the District Midwife and the G.H.A.

.....

It will only be staffed during certain hours eg. one hour in the morning and an hour in the afternoon. The remaining part of the day will be spent on field work, home visits etc. Supervision will be exercised by Public Health Nurse of Type II H.C.

(II) Type II H.C. will see referrals from Type I H.C. and will be the backup centre for routine preventative and curative measures. For instance it will see cases in its catchment area that do not require the immediate services of a doctor or do not require laboratory investigations before treatment. Immunisations would be done routinely at this H.C. which would be the "base" for the school health, school dental services, environmental sanitation and nutrition demonstration and advisory services for the catchment area.

(III) Type III H.C. will be the referral centre for all health services that are not provided at Type I and II. As Type III will provide a full range of curative and preventive services for the area that it serves, it is expected that it will be the centre (a) from which most of the admissions to hospital will take place (b) where the health team will concentrate on a co-ordinated approach to primary health care both from the curative and preventive point of view. In other words it will be the last "port of call" before the patient is admitted to hospital. The staff at Type III will be exercising supervision over Types I and II and will also arrange for specialist clinics either at Type II or III depending on numbers, accessibility to clinics etc.

NB All emergencies will go either to Type III or directly to hospital depending on the nature of the emergency.

#### (e) Staffing of Health Centres

1. Functions of Staff Before we outline proposals for staffing of health centres it is necessary to define the main functions of the Principal Officers concerned with the delivery of rural health services viz.

- (1) MEDICAL OFFICER (HEALTH) is responsible, inter alia, for the implementation of entire maternal and child health, family planning and nutrition programme in his parish. He liaises with the curative services provided by the hospital and advises the local board of health on all matters affecting public health. He therefore provides the highest level of care within the primary health care system and is responsible for the administration of the system in his parish.
- (2) MEDICAL OFFICER (HEALTH CENTRE) or DISTRICT MEDICAL OFFICER is responsible for the medical care of patients at Primary health care level and is responsible to the Medical Officer (Health) of the parish. He will be in charge of the Type III Health Centre and will provide medical backup facilities for Type II and Type I Health Centres in consultation with his staff and Medical Officer (Health).
- (3) PUBLIC HEALTH NURSES work in Health Centres under the medical supervision of the Medical Officer subject to the administrative supervision of the Senior Public Health Nurse of the Parish and Medical Officer (Health). Their main functions are:
  - (a) Supervision of District Midwives, Staff Nurses and C.H.As
  - (b) Provision of more specialised care and advice to mothers and children.
  - (c) To maintain a link between (1) preventive and curative care at H.C. and Community level

.....

(11) Primary and secondary care.

(14) PUBLIC HEALTH INSPECTORS are primarily responsible for the environmental health aspect of community health. In the MCH programme they will be asked to :

- (a) Assist in Family Life education
- (b) be the link of the primary health care service with the male segment of the community
- (c) to use their influence in assisting the Family Planning Programme with male motivation and in educational inputs into schools and male dominated community programmes.

(5) DISTRICT MIDWIFE works in Health Centres Type I AND Type II and in homes. She is subject to supervision by the Public Health Nurse and her main functions are:

- (a) providing routine prenatal, postnatal and Family Planning Services
- (b) conducting normal deliveries either at the patients home or at Rural Maternity Centres.
- (c) Providing in conjunction with the Public Health Nurse routine care to children under five years of age.

(6) NUTRITION OFFICERS : There are two grades of Nutrition Assistants at present under training viz. Senior Nutrition Assistant and Nutrition Assistant. Four out of five parishes in the County of Cornwall have nutrition officers who implement the Nutrition policy of the Government under the administrative supervision of the Medical Officer (Health) and under the technical supervision of the Technical Officer (Nutrition) Ministry of Health. At present Nutrition Officers in the parishes function mainly as resource personnel to the health team and provide in service training to all categories of health workers. It is expected that with the implementation of the nutrition staff infrastructure in each parish there will be marked expansion of the services provided at every level of the primary health care system.

(7) COMMUNITY HEALTH AIDES provide the cornerstone for community health services particularly in the fields of M.C. H. F.P. and Nutrition. They work from Health Centres within a prescribed area of their Community and most of their time is devoted to home visits in the Community which they serve. Each Community Health Aide has been trained to (a) identify health problems and bring them to the attention of trained personnel. (b) give basic advice to the people in her community on nutrition, cleanliness and hygiene in the home (c) encourage advise mothers and children to attend clinics regularly and motivate them to get themselves immunised against infectious disease (d) motivate mothers, teenagers etc. to attend Family Planning clinics (e) assist other members of the health team at clinics, nutrition demonstrations, health education sessions etc. (f) to visit the households in her area regularly and maintain a liaison between the health services and the community.

## 2. Manpower Requirements

3.12 The manpower requirements for staffing of health centres at various levels is given below:-

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COUNTY OF CORNWALL - COMMUNITY HEALTH PROJECT

PRESENT MANPOWER AND MANPOWER REQUIREMENTS FOR PERIOD 1976/81

TRISH	PRESENT MANPOWER								ADDITIONAL MANPOWER REQUIREMENTS 1976/81							
	Drs.		Nurse Pract.	Sr. PHN	PHN	SBN	D/MW	CH	Drs.		Nurs. Pract.	PHN	PHN	SBN	D/MW	CH
Ft.	Pt.	Ft.							Pt.							
TRILWNY	-	2	-	1	7(2)*	1	19	-	3	-	4	2	13	-	7	120
T. JAMES	2	1	-	2	8(3)	2	19	109	4	-	7	2	13	-	13	71
HANOVER	1	1	-	1	5(2)	1	10	142	11	-	6	2	9	-	8	-
WESTMORELAND	-	4	-	2	5(1)	2	18	88	2	-	-	-	-	-	12	22
St. ELIZABETH	-	3	-	2	7(2)	2	10	27	9	-	10	-	9	-	9	129
TOTAL	3	11	-	8	33(10)	8	80	306	24	-	32	6	43	-	53	342

\* Total includes trained and untrained Public Health Nurses  
 Figures in Brackets indicate untrained personnel.