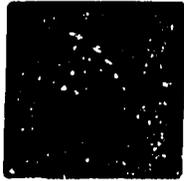


PW-ABM-470
79501



LATIN AMERICA AND CARIBBEAN HEALTH AND NUTRITION SUSTAINABILITY:

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LAC-0657-C-00-0051-00
with the U.S. Agency for
International Development.

**PRIMARY HEALTH CARE
RECURRENT COST STUDY - BELIZE**

BELIZE REPORT

**PRIMARY HEALTH CARE
RECURRENT COST STUDY - BELIZE
SUMMARY REPORT**

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November 1991

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Full report available upon request

Prepared for the U.S. Agency for International Development
LAC Health and Nutrition Sustainability
Contract No. LAC-0657-C-00-0051-00
International Science and Technology Institute
University Research Corporation
1129 20th Street, NW
Washington, DC 20036

I. INTRODUCTION

At a time of weak economies and constraints in public budgets, it is increasingly necessary for decision-makers in public health to evaluate their budgetary expenditures in order to improve the allocation of resources toward effective priority activities and to increase efficiencies in the use of health funding.

In October/November 1991, the Latin America and Caribbean Health and Nutrition Sustainability Contract (LAC HNS) conducted a study of recurrent expenditures in public health in Belize to provide information to decision-makers about the allocation and efficient use of available national and donor resources.

The major findings of the study were:

- Public health recurrent expenditures, after growing for four consecutive years, declined significantly in 1990/1, in real terms.
- The proportion of the national budget allocated to hospitals has been growing steadily over the last five years, reaching 47% in 1990/1. This growth is particularly of concern since it precedes plans to construct a new major hospital in Belize City, which will place even greater demands on recurrent cost budgets.
- At the same time, central administrative expenditures have declined to less than 10%, a figure that is probably too low to manage the whole national system effectively.
- Unit costs of selected Primary Health Care (PHC) services appear to be somewhat high relative to costs of similar services in other countries, although such comparisons should be viewed with caution. Comparisons of unit costs within the country suggest that unit costs of PHC services are much higher in Belize City district than they are in the rest of the country, suggesting that efforts to improve efficiency be initiated in that district.
- Foreign sources of funding for primary health care are declining significantly in 1991/2. The Ministry of Health (MOH) will need to replace an anticipated shortfall of US\$ 400,000 in that fiscal year, if it is to keep the donor-funded activities going at the same levels.
- In order to reach MOH targets for immunization, Acute Respiratory Infections (ARI) and diarrhea control in the next five years, MOH will also need to devote an additional BZ\$ 300,000 annually to these activities.
- Unit costs of the Community Health Worker (CHW) Program are extremely high (US\$ 16.26 per family visit) suggesting the need to reduce administrative costs, increase the number of health workers, and/or increase the productivity of each health worker.
- Allocations of personnel and distribution of PHC drugs are highly skewed toward Belize City district,

far out of proportion to the population of the district, suggesting inappropriate use of services in the district.

Using results of recurrent cost analysis can prove useful to the Government of Belize (GOB) in making policy and programming decisions. The findings from this study suggests that the GOB consider:

1. Increasing the portion of the national budget allocated to the health sector and considering cost-recovery options.
2. Capping or reducing recurrent expenditures in the hospital sector and re-evaluating the recurrent cost implications of plans for the new Belize City Hospital.
3. Increasing administrative support for the national health system.
4. Increasing efficiency in the use of resources in Belize City.
5. Redesigning the CHW program to reduce administrative costs and increase the productivity of each worker.

II. BELIZE HEALTH SECTOR

Belize has a small population of approximately 185,000 persons with an estimated annual growth rate of 2.5%. Average population density is low (21 persons per square mile) and about 50% of the population live in rural areas. Belize is a lower middle income country (GNP per capita of \$US 1,720 in 1989)¹. By some measures Belize is entering the demographic transition toward health indicators similar to those in more developed countries. For instance, respiratory, cardiovascular and cerebrovascular diseases are among the four leading causes of death. Infant mortality is quite low at 19 per 1000 live births and life expectancy is 68 years². Although these figures may be artificially low, due to under-counting of the refugee population, they indicate a significant difference with most of the countries of the Central American region.

It is estimated that the private and public sectors account for about equal proportions of total health sector expenditures (Gwynne and Zschock, 1990). Most of the country's health facilities, however, are run by the Ministry of Health. The Social Security Institute provides health benefits, but no health services. It contributes a small annual lump sum to the public health budget for medical care coverage of enrollees injured on the job.

The role of the private-for-profit sector is limited by restrictions placed on private practice: only specialists and general practitioners outside of Belize City are entitled to have a private practice and currently

¹World Bank Development Report, 1991

²All figures in this paragraph are from BFLA Annual Report 1990-1991).

there is no private hospital in Belize (private practitioners use the government hospitals). Nevertheless, it is estimated that there are about as many doctors in private practice as in public service. In addition, some large businesses provide health services for workers and their families.

There are several private nonprofit non-governmental organizations (NGOs) which are directly involved in providing health care in Belize and/or play an important role in training and technical assistance, particularly for Community Health Workers (CHWs). Until 1991, the government invested very few resources in CHWs. Until this year, most of the financial responsibility rested with a variety of NGO's which trained and supervised CHWs throughout the country. All of these NGO's have completed or are about to complete their involvement with the CHW program. As a result, the government is taking over responsibility for training, supervision and on-going support for these CHWs.

III. OBJECTIVES OF THE STUDY

The principal task of the study was to document the level and distribution of recurrent costs incurred by the MOH and donors for health care services in Belize and, where feasible, to link these cost estimates with measures of output and to determine the unit costs of services delivered. Primary health care (PHC), and maternal and child health (MCH) activities in particular, was the main focus of the study.

The objectives of the study were three-fold.

- to reveal where health expenditures were going (to which types of inputs, which kinds of programs and which districts);
- to document the level of donor dependence in the health sector; and
- to generate data (in the form of cost per unit output) for use in estimating future financing requirements and in highlighting possible inefficiencies in the distribution and use of resources.

The overall purpose of the study was to provide results which could be used for policy dialogue and project design and monitoring. However, the study had a second goal as well, namely, to explore and demonstrate the feasibility of generating adequate estimates of unit recurrent costs without the need for detailed facility level data collection, relying instead on centrally available statistics.

IV. METHODOLOGY

The core of the analysis focused on a broad definition of Primary Health Care, including:

- all the activities at the rural and urban health centers including: well baby (including vaccination, weighing) pre-natal, post-natal, and health education programs;
- the CHW program;

- all the district level activities of the vector control, environmental sanitation, and dental health; and
- the community center, and mobile activities of the mental health program³.

Key individuals in the MOH were consulted to identify the nature, availability and location of financial and output statistics. Data on recurrent costs and activities performed were collected using reports from previous studies, official health documents and interviews. Visits were made to the central administrative offices of key PHC programs and to the districts where the consultants met with various members of the rural health centers. Donor agencies working in the health field were also consulted for information on the investments made in health activities and the results achieved.

Except where noted, all annual figures refer to the Belize fiscal years which begin on April 1. All expenditure figures refer to actual expenditures, not to budgetary authorizations. Also, except where noted, all dollar figures are for current Belize dollars (BZ\$ 2.00 = US\$ 1.00).

V. GENERAL FINDINGS

A. Declining Expenditures

The study found that public health recurrent expenditures, after growing for four consecutive years, declined significantly in 1990/1, in real terms. In summary, the MOH had an annual recurrent budget of BZ\$ 14,217,854 in FY 1990/91. This represents:

Per capita public health expenditure: BZ\$ 76 in FY 1990/1

The MOH recurrent expenditures were 2% of the GNP in 1990/1

Public health recurrent expenditure as a percentage of central government recurrent expenditures were: 9.20% in FY 1989/90, representing a gradual decline from 11.73% in FY 1985/6.

These figures are relatively high compared with other countries in the Latin American region. A study by Gwynne and Zschock found that in 1985, of a selected number of LAC countries, only Jamaica had a higher percent of GDP devoted to public health expenditure (2.9%), while Guatemala expended only 0.7%.⁴

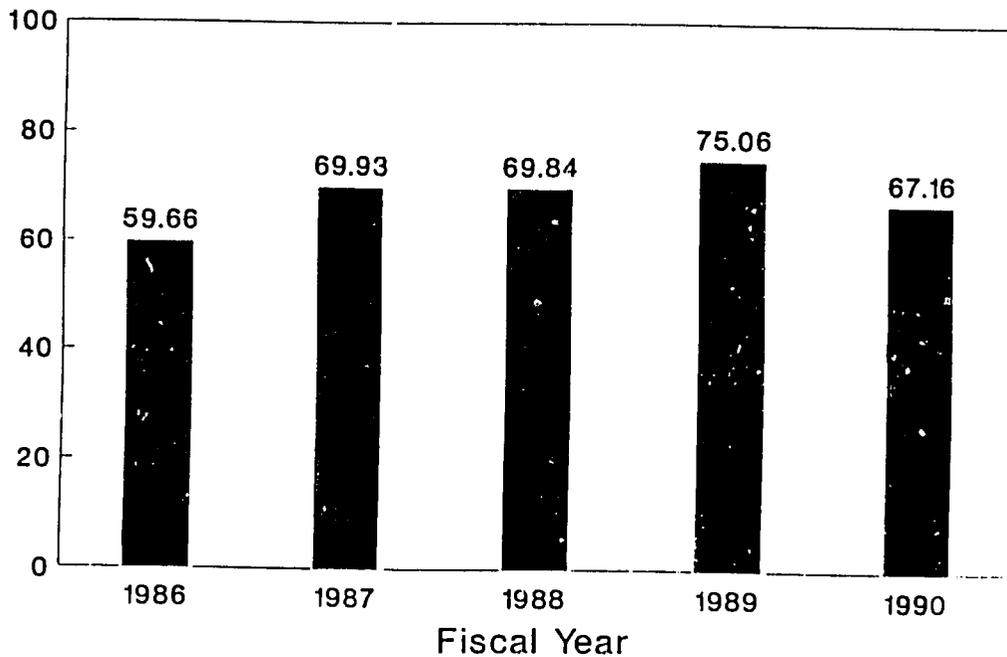
³It was not possible in the analysis to disaggregate the costs of the mental hospital from total expenditures in mental health, so the figures for this activity included mental hospital expenditures.

⁴Gretchen Gwynne and Dieter Zschock, "Health Care Financing in Latin America and the Caribbean," *The Journal of Health Administration Education*, vol 8, no. 4 (Fall 1990). It should be noted that we have compared percent of GNP figures for Belize with percent of GDP figures of the Gwynne and Zschock study. Since GNP

In constant per capita figures, the public health expenditures, after a period of almost continuous growth through FY 1989/90, have shown a recent decline. The FY 1990/91 per capita expenditures were lower than the FY 1981/88 figures. This decline in public expenditures in health is likely to force tradeoffs in service delivery and makes choices about funding allocation and revenue generation critically important. (See Table 1)

Table 1

MOH PER CAPITA EXPENDITURES FY 1986-1990
in constant \$BZ of 1986



Given the decline in real public health expenditures, the need to allocate additional expenditures to PHC in order to reach MOH targets, and the need to replace donor funding in order to sustain PHC programs, the study recommended that a major effort be made to find additional financing for public health activities. This effort may involve seeking larger proportions of the national budget, but will also likely require major initiatives in cost-recovery and a shift in demand and costs to private providers.

B. Financial Allocation of MOH Expenditures

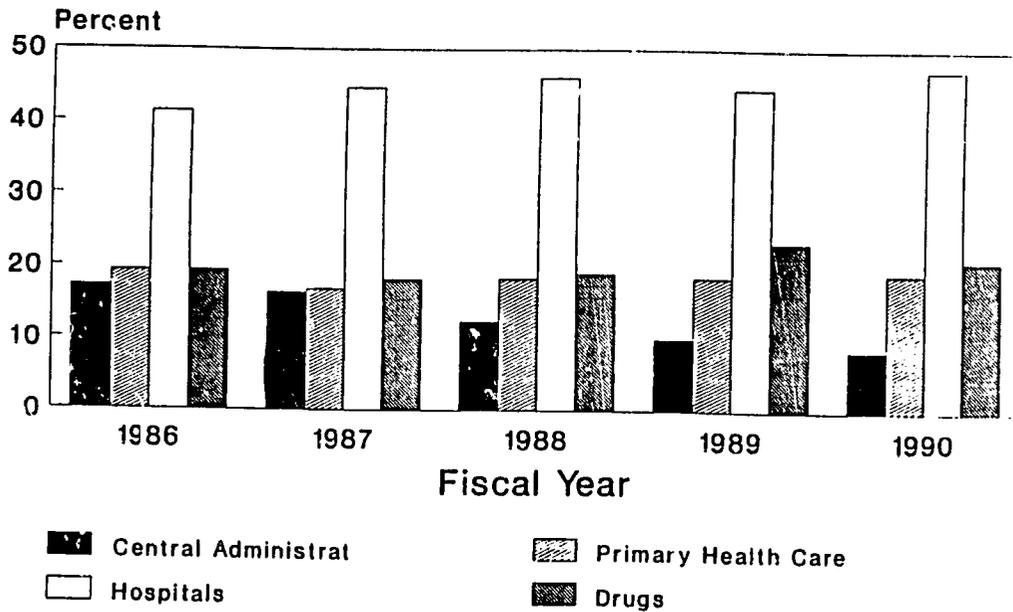
Among the major categories of MOH expenditures several important trends were apparent. Public expenditures devoted to hospital care have increased over the last five years from 41% to 47% of the total MOH recurrent budget. At the same time, expenditures for primary health care have remained relatively constant at around 20%. Expenditures for drugs were also relatively constant at around 20%, with the

tends to be larger than GDP, Belize is probably allocating a greater portion of its GDP to health.

exception of FY 1989/90 when they peaked at 23.4%. The expenditures on Central Administration have been cut in half, declining from 17.2% to 8.6%. (See Table 2)

Table 2

MOH RECURRENT EXPENDITURES BY ALLOCATION
FY 1986-1987 to 1990-1991



These trends suggest some emerging problems. Although the growth in hospital spending is not large, it comes at a time when the MOH is planning major investments in a new Belize City Hospital, which will imply even greater additional recurrent expenditures in the hospital sector. This combination -- a steady growth in the allocation to hospitals and plans for even more demands for hospital spending -- is an explosive one for the recurrent cost budget of the MOH.

It appears that the growth in hospital spending has come at the expense of administration -- often not a poor trade-off when administrative costs are high. However, a certain level of administration is necessary for effective and efficient use of funds. Usually, an acceptable range of expenditures on administration is between 10-15%. There is a possibility that some administrative costs have been shifted to line items for hospitals and primary care through a process of decentralization of administrative responsibility, however, there is no clear evidence of this shift and there are many examples of weak administration in the central offices. To cite only one example, the health information system is overloaded and without sufficient funds for expansion.

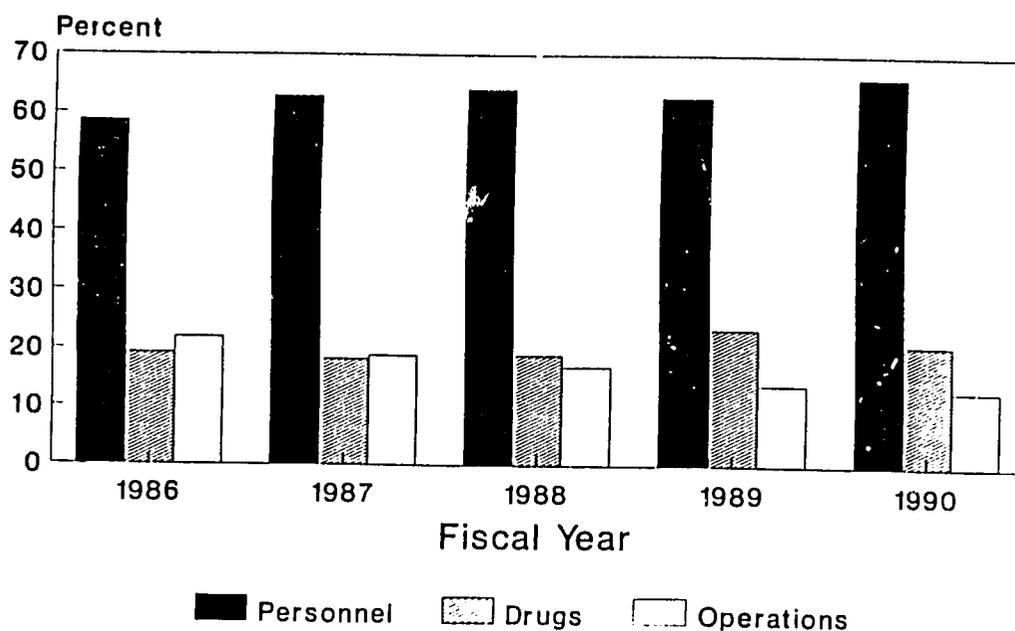
The current trend suggests that cuts in administrative costs may have gone to the bone and that

additional resources should be devoted to improving central administration. Planning and programming, health/management information systems and financial accounting might be targets for additional administrative resources.

It is, nevertheless, important to note that increased public spending on hospitals did not come at the expense of primary health care. Spending in this sector, as previously noted, has remained constant at 20%, a figure consistent with other countries in Central America.

Other allocation trends are also problematical. Personnel expenditures are rising as a percent of overall spending, from 58.8% in 1986/7 to 66.1% in 1990/1. This trend is approaching the levels that are common to other countries in the Central American region and should be carefully watched.⁵ Personnel budgets are relatively inflexible and are the most difficult to reduce in the future. Efforts to increase efficiency and to allow greater flexibility in program allocation are hampered by the inability to control personnel expenditures. As personnel budgets grow, generally the other resources necessary for staff to provide quality care are reduced. (See Table 3)

Table 3
MOH RECURRENT EXPENDITURES BY CATEGORY
FY 1986-1991



⁵In El Salvador personnel expenditures have reached over 70% of the MOH expenditures.

The largest recipient of primary health care funding in 1990/91 was the vector control program (31% of the total PHC budget). While vector control costs are generally high in countries of the region, the funding devoted to this high cost program should be evaluated in relation to other priorities and expenditures.

Community Health Services, which supports most of the costs of the rural and urban health centers and their nursing staff, as well as the mobile clinics, received only 18% of the PHC budget. In contrast to the low central administrative funding for the Ministry as a whole, administrative costs (General Administration and Director of Health Services) within PHC absorbed 11%, probably an appropriate level. It should be noted, however, that spending on health education is quite low, only 2%.

C. Sources of PHC Funding

All PHC public funding comes either from the national government budget or from external donors. There are no user fees collected in primary health care facilities. The user fees collected at hospitals provide very little under current practices -- Griffin and La Forgia (1991) estimate that 2.4% of the MOH operating budget was recouped in fees. Fees collected were less than the published fee schedules allowed. Contributing to hospital cost-recovery, the Social Security Board also pays a small amount (BZ\$ 50,000) to the MOH for hospital treatment of worker injuries, but again, these funds do not contribute to PHC expenditures.

Calculating the amount of donor funding for PHC proved difficult. Accounting practices vary widely among donors and often funds come from several internal budgets in the home offices of the donors, making it difficult to track actual expenditures in Belize.

Chart 1 provides an estimate of donor funding for PHC for FY 1990/91 based on the available funding information. However, it is probably an underestimate. These estimates were provided by donors and include all expenditures in-country, as well as some international technical assistance.

Of the total US\$ 919,205 donated, at least \$ 441,224 is not likely to be renewed. If the Government of Belize wants to replace this funding with national funds in 1992/3 it will need to allocate an additional BZ\$ 882,448 to primary health care activities. One source for this additional funding might be a partial reallocation of user fees charged at hospitals. For instance, a recent study showed that BZ\$ 1,533,361 could be raised if modest increases in fees and collection practices were implemented.⁶ While most of these fees should be retained at the facilities in which they are collected (in order to improve quality, incentives, and management), a portion could be used to off-set the loss of donor funds and cross-subsidize preventive care with fees collected for curative care.

⁶Griffin and La Forgia, *op.cit.*, pp. 18-19

Chart 1

ANNUAL DEPENDENCE ON DONOR FUNDING
FOR PRIMARY HEALTH CARE

US Dollars

draft estimates 10/15/91

DONORS	1990/91 ESTIMATES
PAHO	
PAHO/Belize	70,431 ⁷
PRODERE	100,634 ⁸
Action Plan for EPI	73,800 ⁹
UNICEF	66,864 ¹⁰
UNHCR	62,000
Medicos Sin Fronteras	170,000 ¹¹
A.I.D.	L^_
CARE/MACH	141,295
BFLA	107,048
BIB	67,929
Others	
IPPF	59,204
TOTAL ANNUAL DEPENDENCE	919,205

⁷Annual allotment only, not actual expenditures

⁸Estimate for 1991/2

⁹Estimate for 1990, usually 90% executed

¹⁰Actual expenditures in 1990

¹¹Estimate of Sustainability need for MOH funding -- excludes PRODERE funding

D. Unit Cost Analysis of PHC Activities

Unit costs calculations were made for selected PHC services. The results were (in US\$):

Immunizations (full series)	\$20.72
Diarrhea Control (treatment)	\$ 7.75
Acute Respiratory Infections (treatment)	\$ 5.48
Prenatal Visits	\$ 3.00
Mental Health Visits	\$19.40

The unit costs for EPI appear relatively high in Belize when compared to the global range (US\$ 5.00 to US\$ 15.00). However, much caution should be used in comparisons among countries and among studies using different methodologies. Variations in costs of labor, methods of assigning indirect costs, and vaccine costs will significantly affect the inter-country comparisons. It is possible that relatively high labor costs in Belize partly explain these differences. It is also likely that Belize has a low population-to-health staff ratio, which would also increase unit costs because normal waste and inefficiencies are magnified when distributed over low numbers of beneficiaries. With these caveats, it is not clear that the estimate used in this study should be taken as significantly higher than other unit costs estimates for other countries.

Nevertheless, using this figure as a baseline, the variations in unit costs between districts were analyzed in order to measure the efficiency in the immunization program. The results indicated that Belize City, with the highest population served, had the highest unit costs. This high cost is in part due to the skewed personnel and drug distribution which has assigned more staff and distributed more PHC drugs in the Belize District than is appropriate in relation to services delivered and target population.

The differences between districts suggest that the MOH needs to seek ways in which to improve efficiency in the immunization program implemented in Belize City where high unit costs are not justified by the level of demand.

Average unit costs for the country for treatment of a diarrhea episode was BZ\$ 15.49 (US\$ 7.75). This figure is within the range reported in an eight country study for the World Bank, which found average cost per child treated to be between US\$ 0.70 and US\$ 9.70.¹² The finding of unit costs at the high end of the range is probably due both to higher labor costs (as with immunizations) and to the low demand for diarrhea treatment in facilities. Variation from district to district showed that where the demand was highest the unit cost was

¹²J. Martinez, M. Phillips and R. Feachem. Health Sector Priority Review: Diarrheal Disease. World Bank (HSPR-21), April 1991.

lowest (BZ\$ 8.0) and that the lowest demand had a high unit cost (BZ\$ 17.8). However, Belize City, with the second highest demand, again had the highest unit costs, suggesting an opportunity to improve efficiency in provision of services in that district.

The country average for ARI was BZ\$ 10.95 (US\$ 5.48) per treatment. International comparative figures were not available at the time of the study, however, this figure does not appear to be out of line with other unit costs in the country. Again, unit costs in Belize City were much higher (BZ\$ 26.2) than in the rest of the country.

Prenatal visits are a major portion of the activities of nurses in the Community Health Program. In 1990 the number of prenatal visits attended was 30,851. Nurses devoted an estimated 20% of their time to these control visits. The unit costs of these visits were relatively low in comparison to other PHC services, despite the high percentage of time and indirect costs assigned to the service. In 1990 the unit cost per visit was just under BZ\$ 6 (US\$ 3). Here again, Belize City had higher costs than the rest of the country.

E. Projections of Future Funding Needed to Reach 1996 Goals

Although the MOH has achieved fairly high coverage in immunization, diarrhea control and ARI coverage, it has set higher goals in its plans for the next five years. With the unit costs for three child survival programs, the study was able to estimate the costs of reaching MOH goals for these programs. (See Chart 2)

Chart 2

MOH CHILD SURVIVAL GOALS

	Current Coverage	1996 Goal
BCG	80%	95%
DPT	84%	90%
Polio	80%	90%
Measles	80%	90%
Tetanus Toxoid	70%	80%

Study results indicate that the MOH will need a total of BZ\$ 1,593,612 to reach its immunization targets. With current annual expenditures of BZ\$ 286,069, this means an additional BZ\$ 32,653 must be allocated to the immunization program annually to reach the goals set for 1996. It will be necessary to continue to allocate this amount (plus additional funds to account for population growth) every following year to maintain these coverage levels.

The study found that current levels of expenditure are more than adequate for achieving the goal of treating 100% of the anticipated future diarrhea episodes, based on current figures. However, as noted above, the unit costs for each episode appear to be quite high and the number of episodes is quite low already.

The costs of treating 100% of the anticipated ARI episodes was based on the current number of episodes with an additional 2.5% based on population growth. In order to treat these episodes, MOH will need to allocate an additional BZ\$ 277,196 annually for the next five years.

The total additional resources necessary each year for the next five years in order to reach the Child Survival targets set by the MOH are BZ\$ 299,702 assuming that resources not needed to reach diarrhea targets can be reallocated to EPI and ARI.

F. Community Health Worker Program

As was noted above, the Community Health Worker programs in Belize were initiated by N^GOs, along with funding from major donors, almost all of which will end in 1991. Belize is facing this event with a major commitment to continue its programs -- and to alter them according to its own plans and priorities.

The study reviewed the costs of these programs in order to assist the government in assessing what resources will be required to sustain these activities. The results were surprising. The unit costs are quite high for all activities. The cost of a Family Visit (BZ\$ 32) is five times what might be charged for a visit to a physician in a district hospital (BZ\$ 6) under a proposed program to recover all costs in hospitals.¹³ Another comparative benchmark is an estimate of unit costs from a study of the total MOH funding for Maternal and Child Health, including hospital maternity care and post-natal care. That study estimated the annual costs of providing this care to be BZ\$ 30 per mother and child.¹⁴

¹³Griffin and La Forgia, op. cit.

¹⁴James N. Becht and Nicholas Danforth, Maternal and Child Health Care Costs in Belize. Consultative Group on Development, August 1989.

Chart 3

CHW PROGRAM IN ORANGE WALK AND COROZAL
\$BZ Dollars

	Actual 1990/1 CARE Project	MOH 1992/3 Budget Estimates ¹⁵
Total Cost	282,590	245,448
Personnel	148,290 ¹⁶	170,098
Training	2,628 ¹⁷	12,084
Other	131,672	63,266
Unit Costs		
Family Visits	37.44	32.52
House Counselling	40.24	34.96
Mobile/Health Clinics	209.22	181.72
Weigh Days	94.20	81.82
Village Mtgs.	85.20	74.00

The analysis of the unit costs of the CHW program raises some key issues for policy decision-making. The analysis suggests that the cost per type of service is quite high under the current organization and with the projected MOH budget. Although this analysis is preliminary, it does suggest a profound need to make the program more efficient in the delivery of services.

It should be noted that relatively high unit costs should be expected for effective outreach programs. First, house visits and time-consuming one-on-one education programs cost more per unit than visits to fixed sites where many patients can be seen during a give period of time, thus lowering the unit cost per patient. Second, outreach programs are very important in reaching the population at highest risk and those

¹⁵Includes 36.7% of Belize City Administrative Costs Allocated to the two districts

¹⁶Does not include payments to CHW, which were not initiated until September 1991

¹⁷Training expenses for 1990-91 were abnormally low. In 1989-90 training expenses were \$7,955 and projections for May-December 1991 were \$11,821.

least likely to seek care when they need it. It generally costs more to reach the marginal population than it does to accommodate those who seek care. Third, studies show that community workers need considerable supervision and training in order to be effective. Many programs that fail to provide significant levels of supervision and training have failed to maintain services and have little demonstrable impact. Intensive supervision requires additional costs.

Nevertheless, if the findings from the areas studied are validated by similar findings in other CHW program areas, the MOH should seek a variety of ways to reduce unit costs per service, including:

- expanding the number of CHWs,
- reducing the supervision and administrative costs, and
- providing incentives to increase productivity of each CHW.

In addition, with the health profile of Belize moving into a demographic and epidemiological transition toward a prevalence of chronic diseases, accidents and other life style problems, the study recommended that the MOH begin developing a preventative approach to these adult health problems. One option would be to consider the capability of the Community Health Worker program to address these issues as part of a program to increase the efficiency of their productivity.

G. Personnel and Drug Allocation Issues

The study analyzed the expenditures for personnel and drugs by district and compared them to the population of those districts. The results indicated that Belize City district, with 30.4% of the total population, has 67.1% of the personnel expenditures of the MOH, leaving much lower personnel-to-population ratios in the other districts. It is not unusual for urban areas with concentrations of specialized hospital services to have higher personnel to population ratios; however, the magnitude of the differences in distribution should be cause for concern. It is likely that this distribution contributes to the high unit costs for PHC services.¹⁸

The maldistribution of PHC drugs is even clearer. There is no obvious reason for more PHC drugs to be dispensed in a district with specialized hospital services. In our analysis we did not include drugs dispensed to hospitals in the category of PHC drug expenses. Almost 70% of the PHC drugs are dispensed in Belize City district where only 30% of the population lives and where only 26% of the total PHC visits occur.

The study recommended that personnel efficiency studies be implemented to identify a more rational distribution of personnel across districts and that the skewed nature of pharmaceutical distribution might be

¹⁸Further analysis would be necessary to disaggregate PHC personnel from total personnel in order to determine the magnitude of the effect of personnel expenditure on unit costs of PHC services.

addressed through ongoing project activities within the MOH.

VI. RECOMMENDATIONS FOR FUTURE ACTION

The recurrent costs study raised some major issues for policy consideration, as well as some short-term and long-term recommendations for adjustments in current programs. The decline in real public health expenditures, the need to allocate additional expenditures to PHC in order to reach MOH targets, and the need to replace donor funding in order to sustain PHC programs suggest that a major effort needs to be made to find additional financing for public health activities in Belize. While this effort may involve seeking larger proportions of the national budget, it is also likely to require major new programs in cost-recovery and privatization.

At the same time, as the health profile of Belize moves into demographic and epidemiological transition, the Ministry of Health needs to begin developing preventive approaches to adult health problems. A re-orientation of the Community Health Worker program in this direction might serve as a model for the rest of the region.

Need for Additional National Funding

The MOH faces declining financial support at a time when it has additional resource needs in order to reach established PHC goals, and when additional burdens will be placed on the system by the planned Belize City Hospital.

Funding for the health sector from its traditional sources is likely to decline in the coming years. The study found that, after increasing steadily over the period FY 1986/7 to FY 1989/90, national budgetary support, in real terms (constant dollars), has declined in the last year. In addition, key support for primary health care activities is being phased out during this current year and the government is committed to absorbing much of these costs -- especially in the CHW program. Donor funding that is not likely to be replaced amounts to at least BZ\$ 800,000. As the projections of the gap between current spending and the costs of reaching 1996 goal suggests, an additional BZ\$ 299,702 will be needed each year for the next five years to reach these goals.

It seems clear that some form of generating revenue from patients will be necessary to sustain and expand essential PHC activities. As suggested by Griffin and La Forgia, cost recovery in the hospital sector is a major untapped source of funds for the MOH.¹⁹ While most of the funds recovered from current cost-recovery proposals must be retained by the facilities that provide the service, a portion of the fees could be reallocated to cross-subsidize PHC programs. The MOH might also consider cost-recovery activities within PHC programs themselves.

¹⁹see footnote 3.

Policies for the Demographic Transition

In general the health and health service statistics suggest that MCH health status is good in Belize. For example, immunization coverage of children under 1 year of age is estimated at 85% for BCG, 60% for DPT3, polio3 and measles (Becht and Danforth, 1989) and the burden of immunizable diseases has fallen significantly in the last decade, with almost no reported cases of TB, diphtheria, neonatal tetanus or polio in the last 5 years.

On the other hand the morbidity and mortality statistics show adult chronic diseases to be of increasing importance (already some health centers provide special days for diabetic and hypertensive patients). These diseases are difficult and often expensive to treat curatively and will impose a growing financial burden on the health system. A key option is to begin developing preventive strategies to reduce the incidence and future costs of adult diseases, including:

- Screening for cervical and breast cancer, nutritional promotion, discouraging smoking, and promoting improved traffic safety.
- Strengthening interministerial and intersectoral ties to encourage cooperation and investment from outside the MOH.
- Continuing ongoing information and educational campaigns, such as the program to prevent poisoning.
- Reorienting the CHW program to include training in the prevention of adult health problems.

Improving Administration and Planning

The study demonstrated a significant decline in the funds available for central administration -- the core activities of which are planning, programming, data collection and financial system controls. However, results from the study indicated that it was precisely these areas which were in clear need of strengthening. The study therefore recommended that the MOH consider taking the following steps:

- Developing more efficient and rational administrative processes.
- Increasing support at the central administrative level.
- Creating a position for an epidemiologist who will undertake and manage investigations into the nature of health problems and the impact of health activities.
- Taking epidemiological characteristics into account in program planning, budgeting and evaluation.
- Closing gaps in the availability of reliable statistical information.

- Streamlining and increasing flexibility of budgetary procedures.
- Increasing the discretionary powers of district medical officers over the allocation and utilization of resources in their district.

USING RECURRENT COST ANALYSIS

Countries throughout both the developed and developing world are struggling with how to best allocate scarce resources among competing demands. Recurrent cost analysis is one tool which can assist decision-makers in this process. By providing expenditure information in a structured format, recurrent cost analysis can raise the awareness of those persons allocating resources in health care.

While recurrent cost analysis is not a panacea for solving problems in allocating health care resources, it can enhance the body of information from which policy and program decisions are made. How the results of recurrent cost analysis are actually used will depend upon the political and economic environment of each country. Within Belize, the results of the recurrent cost analysis have provided decision-makers with a greater understanding of what steps need to be taken to ensure that scarce resources are used in the most efficient and effective manner possible.

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18

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19