

**Health Financing
and Sustainability
Project**

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Trip Report and Technical Notes for
BELIZE

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HEALTH FINANCING AND SUSTAINABILITY

TRIP REPORT AND TECHNICAL NOTES

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SUMMARY

Gerard La Forgia and Charles Griffin spent two weeks in Belize to gather data and documents relevant to cost recovery in the Ministry of Health curative care system, particularly in Belize City Hospital and district hospitals. The data reveal three urgent problems in the fee collection system: extremely low prices, few patients ever receive a bill, and only about half of those billed pay. The HFS team estimates, for example, that Belize City Hospital collected \$119,000¹ in 1989, about 2.4 percent of its expenditures. The same estimates indicate that it could have collected about six times that amount using existing prices (not raised since 1967) and exemptions if the fee schedule had been strictly enforced. Doubling those prices and putting nominal fees on some services that currently are priced at zero would allow Belize City Hospital to recover about 25 percent of its costs.

¹ All dollar figures in this report are Belizean dollars. The exchange rate is BZ\$1.00 = US\$0.50.

The HFS team discussed the potential for cost recovery with a wide array of Ministry of Health personnel, ranging from the Minister of Health to clerks at district hospitals and clinics. Virtually everyone within the public health system is strongly in favor of higher prices for their services and greater efforts at collecting fees. However, they were also emphatic that little success in reforming the system would be possible unless the health care system itself benefits from the change in policy. The team also discussed these issues with people in the private sector -- pharmacists, private physicians, and a mission facility -- and found that the private sector is heavily utilized despite very high prices for almost all services and supplies. Quality of care in the public sector is widely viewed as low.

The team will write a technical report based on these findings and a subsequent trip to Belize by Jerry La Forgia in January 1991. The report will be available by mid-March of 1991.

HFS also identified two applied research activities in Belize. Thanks to the cooperation of Bibi Essama and Charles Warren (Centers for Disease Control), the team was able to add a number of economic questions to the Belize Family Health Survey. These questions will allow HFS to generate population-based information that currently is unavailable in Belize but is essential for any successful cost recovery program. If funding is available, HFS will produce reports containing the following information: how consumers now use the whole medical system (public, private, foreign, and domestic) for outpatient and obstetrical services; how much they are now paying for medical care from these sources; how the benefits of government subsidies are currently distributed across income groups; and how much people are willing to pay for government services.

OBJECTIVES

The main objectives of this trip pertained to cost recovery in public facilities. These included: 1) gathering information on current cost recovery policy and practices; 2) developing a rationale for change in current practices and policy; 3) estimating the revenues and costs of proposed changes under different scenarios, and 4) developing a scheme for fee revenue retention between the Ministry of Health and Ministry of Finance. The cost recovery work, funded by USAID/Belize PD&S monies, will result in a report that will delineate the major findings and make specific recommendations for activities to be undertaken over the next three years. A secondary objective was to assess research needs and opportunities that can be linked with future technical assistance activities. This component was funded by S&T/Health. A second trip to Belize is planned for January 1991. At that time, additional work will be performed on cost recovery.

ACTIVITIES

Through a series of meetings with Ministry of Health officials during the first week of the visit -- including Dr. Theodore Aranda, Minister of Health, Mr. Wayne Usher, Belize City Hospital Administrator, and Mrs. Hall, Belize

City Hospital Matron -- the HFS team was requested to conduct an in-depth examination of the user fee system in Ministry of Health facilities. Ministry of Health officials were interested in obtaining information on all aspects of the user fee system. They expressed particular concern regarding the effectiveness of the means test, the collection of fees from private patients admitted to government facilities, the current low level of prices, and the design of an appropriate formula whereby the Ministry of Health could share fee revenues with the Ministry of Finance. Currently, all revenues are sent to the latter institution, and the Ministry of Health must go through the regular appropriations process to fund its entire budget.

The HFS team scrutinized the situation in six Ministry of Health inpatient and outpatient facilities in Belize City, Orange Walk, and San Ignacio (see attached contact list). The Belize City Hospital, representing nearly two-thirds of Ministry of Health expenditures, received a major portion of the team's effort. In each facility, information was gathered on fee schedules, billing and collection processes, revenues, uncollected bills, means tests, exemptions, and payments by private patients. Where possible, the means test, billing, and fee collection processes were observed in action to better grasp the mechanics of these operations. Nearly 30 facility officials were interviewed regarding their views on current cost recovery policies and practices and their recommendations on alternative designs. These officials included medical officers, administrators, nurses, medical records clerks and others responsible for overseeing fee collection. At each facility, utilization data obtained at Central Statistics were confirmed or corrected. In cases where data were unavailable centrally (such as for drug prescriptions), a two- or three-month sample was taken from facility registers. A short list of high-volume drugs and diagnostic tests provided at the sampled facilities was obtained. Similar information was collected from the only mission hospital in Belize, La Loma Luz Adventist Hospital, located near the Guatemalan border. The hospital has been collecting fees since its founding in the early 1970s.

Turning to the private sector, the HFS team obtained prices for inpatient and outpatient services (including surgical procedures) from private clinics. Further, using the above-mentioned short list of high-volume drugs and diagnostic tests, current prices at private pharmacies, one laboratory, and radiology facilities were collected.

Preliminary findings were discussed with the Minister of Health during a meeting on November 15. A series of tables were presented: comparisons of government, mission, and private prices for equivalent services; a comparison of prices for government medical care with prices for common consumer goods (such as soft drinks, beer, beans, etc.); and projections of fee revenues under various fee schedules. Policy options and possible first steps to implement operational changes also were discussed. Finally, on November 16, the HFS team met with Mr. Keith Arnold, the Financial Secretary of the Ministry of Finance, to discuss the feasibility of arranging a cost sharing scheme between the Ministry of Health and latter institution.

FINDINGS: COST RECOVERY

This section summarizes the major findings regarding user fee policies and practices. A more detailed examination will be presented in the final report.

Policy: Policy toward user fees at Ministry of Health facilities is fairly ambiguous, resulting in lax enforcement of existing fee schedules, little or no attention to keeping fees up to date, and fee collection practices that are not uniform across the system. Fees are collected at hospital facilities for both inpatient and outpatient care. Services provided at outpatient clinics are free. Although some officials report that legal and administrative instruments exist stipulating prices, income categories for the means test, and other exemptions that are not related to income, these documents could not be found at the Ministry of Health or the facilities. Reportedly, many of these ordinances date to 1967. Facility personnel with many years of experience report that at that time fees were collected from all patients for nearly all services in both inpatient and outpatient facilities.²

All fee revenues collected revert to general revenues managed by the Ministry of Finance. However, other government services have arranged retention of user fees. For example, the Tourist Board is permitted to retain inspection fees and hotel tax revenues, and a modified arrangement has also been created for the international airport.

Key government officials tend to view government health services as an entitlement and some argue that Belizeans also consider these services to be an entitlement. Since independence in 1981, political leaders and their affiliated parties have sought to shape health policies based on a concept of the country's health needs and political goals that resulted in neglect of the fee structure in the government's curative care system. Politicians have proclaimed that health care is a basic right, and one official (outside the Ministry of Health) interviewed by the team claimed that the present government favors a "socialized medicine" approach to service delivery. He further stated that it is not important to recover costs from clients because health services are a public responsibility.

The HFS team concludes that despite the Minister of Health's enthusiastic support for greater cost recovery in the health system, the government's political position and the political climate could be an impediment to both policy reform and implementation of a revised user fee system. The feasibility issue should be kept in mind by both USAID and the Ministry of Health. On the positive side, the Minister of Health's interest in securing the technical assistance provided under this cost recovery component is to provide the facts he would need to argue for much greater cost recovery in the

² MOH officials suggest that changes in user fee policy and practice will require both legal and administrative changes. Obtaining the pertinent laws and administrative regulations governing user fees will be a main task during a trip planned for January 1991. In the meantime, the MOH's Permanent Secretary is attempting to secure copies of these documents.

health sector and retention of a substantial share of the revenues in the Ministry of Health. In discussions with him, he was confident that with an adequate base of knowledge he would successfully secure the policy changes. In fact, in the final meeting, he heavily discounted the team's concerns about political, legislative, and administrative issues, implying that they were details that he could resolve if he can successfully argue for greater cost recovery.

Policy and procedures regarding fees are communicated from medical records clerks at the Belize City Hospital to personnel (clerks) responsible for fee collections in district hospitals. There was no posting of fees so that patients could see a basic list of charges in any facility visited by the HFS team, and Belize City Hospital staff indicated that patients from outside Belize City are often unaware that there will be a charge when they come for services there, such as for an attendance at a specialist clinic. Staff in hospitals have no clear guidance from policymakers on the importance of charging fees, the appropriate price schedule to use, or how to dispense full or partial exemptions from fees.

In this policy vacuum, Belize City Hospital staff have tried to make sensible, low-risk decisions about setting and administering fees. For the most part they follow the fee schedule available to them, which dates from 1967, with minor modifications dictated by trial and error. The Belize City Hospital staff trains district-level medical records staff, but because of the high turnover of clerks in district hospitals and the absence of documentation on fee policy, differences have arisen across facilities in terms of fee schedules and exemptions. The HFS team had great difficulty and was ultimately unsuccessful in tracking down the documents setting the legal and administrative basis for the fee system, which is suggestive of the uncertain conditions under which staff are expected to enforce fees and the historical neglect of this area of public policy.

Several important policy problems that must be addressed by the Ministry of Health and the government are discussed in more detail below and will be the theme of the technical report emerging from this consultancy. First, the health system suffers from extremely low prices, most of which have not been updated in 23 years. Second, relatively few patients are charged those prices. Third, only about half of those charged actually pay any portion of their bills. The result of these problems and the lack of a user fee policy is a demoralized work force responsible for collecting fees and extremely low collections, well below five percent of budget allocations for the health system.

Low Prices: The Fee Schedule

The fee schedule currently in use dates from 1967. Exhibit 1 compares prices for a sample of high-volume services provided by government, church mission, and private providers. Because prices have not been adjusted since 1967, they represent only a small fraction of private sector and church mission charges for comparable services. Facility personnel with many years of experience report that in the early 1960s fees were charged for prescription drugs (\$1.00 to \$2.00) and for outpatient and emergency visits (\$0.50). These services are

now provided for free. According to a fee schedule used at the Belize City Hospital, outpatient visits with a general practitioner cost between \$0.25 and \$2.00,³ yet no fees are charged. Further, it is interesting to note that in 1975 a bottle of Coca Cola and a Ministry of Health outpatient physician visit cost \$0.50; a prescription in the public sector cost \$1.00 to \$2.00. Currently, the price of the soft drink is \$0.75 while an outpatient visit and prescription drugs at any MOH facility are free.⁴

Exhibit 1
PRICE COMPARISONS FOR A SAMPLE OF SERVICES: GOVERNMENT, CHURCH MISSION, AND PRIVATE PROVIDERS (IN BZ\$)

SERVICE	TYPICAL GOVERNMENT CHARGE*	CHURCH MISSION	PRIVATE SECTOR	
	per diem	\$2	\$25	\$95
INPATIENT	normal birth	\$25	\$130	\$300-800
	caesarian section	\$60	NP	\$400-800
	appendectomy	\$65	NP	\$400-600
	cataracts	\$65	NP	\$400-800
OUTPATIENT	GP visit	\$0	\$7	\$25
	specialist visit	\$5	NP	\$35
	dental visit	\$1	NP	\$20
DIAGNOSTIC TESTS	"routine" blood and urine ^b	\$0-1 ^c	\$5-15	\$4-8
	x-ray: extremities ^d	\$4-8	\$10-24	\$25

Notes:

- BZ \$1 = US \$1.50
- NP means service is not provided.
- * Refers to charges to non-private patients who are classified in "income category II" through an informal means test. Most patients are charged the "category II" rate.
- ^b FBC, ESR, blood sugar, BUN, cholesterol, bilirubin, SGO-T, GGP-T, unc acid.
- ^c Tests for outpatients are free. Inpatients pay approximately \$1 per test.
- ^d Feet, ankle, hand, wrist, finger, and elbow.

Prices for equivalent services vary among facilities. For example, outpatient specialist visits at Orange Walk Hospital are free while they cost \$5.00 at Belize City Hospital. Tooth extractions at Orange Walk cost \$2.00 compared to \$1.00 at Belize City Hospital. Prices for laboratory exams vary across the two hospitals and the Central Laboratory. All inpatients at Belize City Hospital are charged a flat fee for laboratory exams, while no fee is charged except for private patients at Orange Walk and the Central Laboratory.

Few Patients Are Charged: The Means Test

The means test is a fairly ineffective tool used to ascertain a patient's ability to pay. In theory, fees are charged according to five income categories. The highest category (I) is based on a weekly salary of \$100 or more while the lowest category (V) is based on a weekly salary of \$25 or less. In practice, only Categories I, II, and V are used.

³ Depends on income category in which patient is classified. See discussion on means test below.

⁴ At the low prices currently charged by the government, prices obviously do not reflect costs. The final report will compare estimated costs and prices for a sample of services provided by the government.

These categories are listed in Exhibit 2 together with the corresponding charges for a sample of services. If the fees were considered affordable to most households in 1967, those same fees certainly are even more affordable today, yet more Belizeans would be exempted today than in 1967

Exhibit 2
A COMPARISON OF FEES BY INCOME CATEGORY

SERVICE	CATEGORY I \$100 +/week	CATEGORY II \$50-99/week	CATEGORY V <\$25/week
Specialist clinic	\$10	\$5	\$0
Inpatient per diem	\$5	\$2	\$0
Maternity	\$40	\$25	\$0
Major surgery	\$50-150	\$25-65	\$0

because the income categories have not kept up with income growth. Most Belizean families with at least one working member make more than \$100 per week and thus should be charged Category I rates, according to this schedule. Yet Category II charges (for patients earning between \$50 and \$100 per week) are the de facto rates charged to almost everyone. Medical records clerks report that over 80 percent of patients are classified in Category II. In most cases, as observed by the HFS team, the clerks classify patients in Category II with few questions asked beyond a declaration of weekly income. Verification of a patient's income is based on an honor system and the clerk's memory. Records containing income data are not kept. There is no attempt to independently confirm household earnings. Rarely do clerks challenge a patient's declaration of income.

The HFS team observed this means test applied to several patients and looked at the income statements on medical records for a small sample of specialist clinic patients at Belize City Hospital. As performed by medical records officers, the means test consisted of asking the patient for a simple declaration of monthly income. Housewives and retired persons might respond that income is zero even though they live in a household with substantial disposable income. Although medical records clerks might probe for a more accurate statement of household (as opposed to personal) income, this is not done consistently. Experienced medical records clerks apparently discount the income statement almost entirely and put patients in category II so that they at least are charged something.

Few Patients Are Charged: The Exemptions

Who is completely exempted from paying fees? According to the means test, only Category V patients -- the indigent -- are totally exempt from fees. The procedure for such patients is to ask them to present an identification card from the government's Social Development Department, or they are referred to the Social Development Department for certification. In practice, when patients declare that they are unable to pay anything, clerks tend to avoid this cumbersome procedure by making the decision themselves, usually in favor of the patient.

Several other categories of patients are exempted from fees, including

government employees and school children, although practices vary. Civil servants receive free services in Belize City Hospital, but they are charged for inpatient medicines in Orange Walk. All school-age children receive free outpatient specialist care in Orange Walk. In Belize City Hospital, however, they must pay for specialist care, but they can be exempted from dental fees if they bring a letter from the school principal confirming their status as bona fide students. Although not stipulated as official policy, fees are also waived for relatives and friends of facility staff, and these people are often able to jump the queue, a practice observed by the HFS team. Under the current system, people who know the informal rules of the game -- that if they leave the hospital without paying no one will collect from them subsequently - - are also exempted.

The combination of these formal and informal exemptions is highly inequitable. Civil servants⁵ and other government employees are among the highest income groups, yet their care is free. People who live in urban areas tend to be well aware of the informal rules and know how to use them to get around paying fees. In contrast, people from rural areas and those who do not have friends in the right places tend to pay a bill when it is presented and thus are penalized by this system. True indigents in Belize tend to be the elderly, according to experienced employees in Belize City Hospital, so possibly the only effective means test is the age-related one of exempting school children for some services and, informally, exempting the aged who say they cannot pay.

Few Patients Are Charged: Private Patients

Specialists who staff Belize City Hospital are permitted to admit private patients and charge a fee. This is a highly politicized issue and few Ministry of Health officials or hospital staff are willing to discuss it openly. Physicians charge fees for surgical procedures that are similar to the private sector charges listed in Exhibit 1. The hospital waives the surgical fee for these patients but levies a \$50 "use of theater" fee. Be that as it may, medical records clerks are unable to identify private patients. Most physicians maintain their own appointment books and surgical records and do not make known the number of private admissions. One source estimated that at least 25 percent of surgical cases are private. Some hospital staff report that private patients are given preferential treatment by physicians -- usually in terms of greater physician contact and rapid admittance into the hospital. Government patients are placed on waiting lists.

Separate fee schedules are applied to private patients for laboratory tests and use of the surgical theater. They pay Category I rates for all other services. However, as in the case of civil servants, it is nearly impossible to identify a private patient unless the patient identifies himself or herself. Private patients have little incentive to acknowledge their private status except that if they do, they pay the flat \$50 fee for the operating theater (rather than the full charge for the procedure). If however, by

⁵ The preferential treatment of civil servants reduces revenues and probably works against equity. This theme will be taken up in the technical report.

virtue of their silence, private patients are classified as Category II patients, paying even full cost for surgical procedures as if they were regular government patients would probably result in a lower total bill, *assuming it is ever collected.*

One interviewee noted an older patient from a rural district who arrived at Belize City Hospital on two occasions for scheduled procedures and was told each time that the procedure would have to be rescheduled because the specialist was unavailable. It would not take long for patients to learn how to avoid such a delay: visit the physician in his private clinic. The negative equity effects of the current practice with respect to private patients are obvious. The government is subsidizing private services for patients who have demonstrated their ability to pay steep specialist fees. At the same time, private patients consume scarce resources (such as drugs, supplies, and physician time) without paying, to the detriment of public patients, who are least able to pay. When the hospital runs out of drugs and supplies (such as syringes, intravenous solutions, and I.V. sets), patients or their families are forced to purchase these items in private pharmacies.

Few Patients Are Charged: Billing

As suggested earlier, Ministry of Health facilities have a difficult time distinguishing among the different categories of patients in order to present bills. These include private patients (who should pay full charges), civil servants (who should receive free services), and all others who should, according to existing rules, be charged rates commensurate with income levels. This situation is compounded by a billing system which functions only during normal governmental office hours. In both Belize City and Orange Walk Hospitals, according to a sample of records tabulated during this visit, approximately 50 percent of the patients are billed. Patients who are discharged from a ward or use the emergency room after regular working hours rarely receive a bill. In Orange Walk, no inpatient is billed unless he or she requests a bill at discharge or returns to the hospital at a later date! Remarkably, about half the patients in Orange Walk do attempt to make a payment.

Few Who Are Charged Actually Pay: Fee Collection

In addition to the ineffective means test and a lax billing process, the fee collection system appears equally deficient. Based on a two-month sample of billings in Belize City Hospital, the HFS team estimates that less than one-half of inpatients who received a bill paid it. Part of the problem is that most patients (and their families) arrive at the hospital without money because they are either unaware of the fee system or they understand that even if they receive a bill, they will not be obliged to pay it. Clerks have little leverage to force patients to pay and can only suggest that the patients pay something. The Belize City Hospital employs a bailiff to collect unpaid bills, but little or no effort is actually expended by him to follow up on unpaid bills. Medical records officers attempt to collect from former inpatients when they return to the specialist clinic for a post-surgical visit. However, based on the team's observations in the specialist clinic, former inpatients were provided the service despite unpaid hospital bills.

Medical staff obviously are inclined to provide needed services whether or not past due bills are paid. Further, this process completely fails to capture private inpatients who visit physicians in their private clinics and use the public system only for inpatient care or other free services (such as x-rays through the casualty department or subsidized tests at the Central Laboratory).

The Overall Impact: Low Revenues

The HFS team estimates that the true value of Belize City Hospital's budget in 1989 was about \$5,000,000 and that the hospital collected only \$120,000 in 1989, representing about 2.4 percent of its expenditures. How much could it have collected? A simple simulation was developed by the HFS team to estimate how much Belize City Hospital might have collected under current rules -- using actual utilization rates, the current low prices, and assuming that 70 percent of patients pay Category II rates, 10 percent pay Category I rates and 20 percent pay nothing. The simulation indicates that the hospital would have collected \$667,000 or about 13.3 percent of its expenditures in 1989. The HFS team is surprised at the revenue potential of the hospital despite the fact that the simulation uses the low prices currently charged and builds in generous exemptions. The only real change assumed is strict collection of fees from paying patients.

How much could Belize City Hospital have collected with higher prices? Using the same assumptions (20 percent pay nothing, 10 percent pay Category I, 70 percent pay Category II) but doubling all prices and putting a minimum fee of \$3.00 on clinic visits (and assuming that use drops by 10 percent due to the higher prices), the hospital would recoup about 26 percent of expenditures. These changes in fees do not even keep up with inflation, nor do they factor in more realistic exemptions and thus probably represent a lower bound on the potential of the hospital to recover costs.

If, in addition, the Ministry of Health charged a \$3.00 flat rate for services provided to outpatients at the Central Laboratory and for all visits at the two outpatient clinics in Belize City (Cleopatra White and Matron Roberts), another \$200,000 would have been collected in 1989. It is likely that, at this price, revenues would approximately cover the cost of operating these clinics. The final report will present revenue projections under different utilization and pricing scenarios for several facilities, including the district hospitals.

Finally, facility staff at all sites are strongly supportive of reforming the user fee system. Many claim that most patients can afford to pay substantially more than is currently asked of them. Most staff interviewed by members of the HFS team support a flat fee that can be collected before service is rendered. In Belize City Hospital and the Central Laboratory (as well as in district hospitals), a detailed list of charges is already used, and the administrative machinery is already in place to collect these more complex charges. Simple flat fees would be a step backwards for them. Most staff recommend that a portion of the earnings remain at the facility so that staff and patients can see some benefit from the fee collections. Most

mention that they would use the funds to bolster stocks of drugs and supplies as well as improve maintenance. The final report will consider options for fee retention and use of the money.

NEXT STEPS

The preliminary findings for cost recovery were presented in abbreviated form to the Minister of Health during a November 15 meeting. Several tables listing government and private prices, and illustrating the results of revenue simulations were also presented. The Minister found the information useful, asked if he could use some of it in a presentation the next day, and stated that he eagerly awaited the final report. Possible options for improved cost recovery were discussed. These included flat fees for outpatient visits, prescription drugs, and diagnostic tests, and a pre-admission deposit for inpatients. The team also met with Mr. Keith Arnold, the Financial Secretary of the Ministry of Finance. Although in principle opposed to special fee retention arrangements because of the Ministry of Finance's commitment to a consolidated budget, he appeared flexible about a revenue sharing scheme with the Ministry of Health, especially if a compelling argument (with supporting evidence) can be made as to the benefits for both institutions. In fact, the Ministry of Finance is already considering placing its own revenue agents in the health system as a stopgap measure to assure that fees are collected.

La Forgia will be returning to Belize in January to continue information gathering on cost recovery. Projected activities will include:

- 1) Visit additional district hospitals to assess the cost recovery situation.
- 2) Obtain all legal ordinances and administrative rules governing Ministry of Health user fee schedules, exemptions, means tests, etc.
- 3) Meet with officials at the Social Development Department to discuss the identification and certification of the poor and the potential for a more formal means test.
- 4) Obtain data from the Ministry of Health financial office on current user fee revenues in each facility.
- 5) Assess the volume of private inpatients in Belize City Hospital.
- 6) Meet with politicians to ascertain political support for changes in cost recovery policy.
- 7) Assist Belize City Hospital administrators in setting up a system to measure utilization by patients insured through social security.
- 8) Follow up as necessary on details pertaining to the Applied Research activity.

HFS expects to have completed some parts of the Technical Report on cost recovery by the time La Forgia returns to Belize, so he will also track down data that is found to be missing.

TECHNICAL NOTES

FINDINGS: APPLIED RESEARCH

Introduction

The Value of Population-Based Research on Demand Behavior as a Component of Cost Recovery Activities in Belize and the World

The Ministry of Health will probably commit itself to greater cost recovery in hospitals and health centers in the near future. However, it has a very limited base of knowledge of the health system on which to base its cost recovery activities, which increases considerably the riskiness of such a policy change. Apart from budget documents, information on the health sector is confined to annual utilization statistics for the public system (published biannually), a 1985 study of costs in the Belize City and district hospitals, and a November 1988 PRITECH Health Sector Assessment. The HFS Project's technical assistance on cost recovery adds to this information by projecting potential revenues for the public system, gathering prices for medical services in the public and private sectors, and discussing the main policy issues that must be resolved for cost recovery to go forward.

There are two sets of issues -- supply-side and demand-side -- that determine the success of cost recovery for public services in Belize or anywhere else. On the supply side, cost recovery will succeed if the necessary administrative and legal arrangements are in place and work effectively. These arrangements include most of the items that will be provided in a general way through the technical report on cost recovery and, for specific institutions, in the follow-up technical assistance project that USAID envisions for 1991.

The demand-side issues, which have received no attention in Belize, are at least as important for the political and economic feasibility of cost recovery. Demand-side questions include the following:

- how are people currently using the health system (both public and private, and in Belize, domestic and foreign);
- how much do people currently spend on health care from the public and private sectors;
- how are the benefits of public subsidies distributed among the poor and rich, across age groups, and according to other relevant criteria (such as type of illness);
- how would behavior under the current system adjust if prices in the public sector were raised;

- how could prices be changed in such a way as to result in more appropriate targeting of public subsidies;
- how much would people be willing to pay for government services as they stand and if they were improved?

From a political standpoint, facts about how the system is currently used and how changes in the fee structure could improve the allocation of government resources for health are essential. In the absence of these facts, any change in policy will be evaluated purely along ideological or politically opportunistic lines. From an economic standpoint, to evaluate the current and planned fee systems against typical economic criteria (revenue-generating capacity, efficiency, and equity) requires knowledge of consumer behavior.

The importance of these issues is not confined to Belize, which is why exploring them in Belize would contribute to the applied research agenda of the HFS Project. There is high demand in the world for knowledge about what it takes to develop a successful cost recovery program, preferably one that improves the efficiency and equity of government resource allocations to health. However, in the past, technical assistance to governments has been limited to supply-side interventions designed to help them revise their fee schedules and collect the money. The result in some instances has been inadequate preparation for political arguments against increased fees, fees that were set too high and later had to be rescinded or reduced, and an inadequate understanding on the part of the population and health sector personnel of the rationale behind the change in cost recovery policies. One of the main contributions the HFS Project can make in its technical assistance is to anticipate the need for this type of information, which can be supplied by population-based surveys. Only when such information becomes available will governments be fully equipped with all of the knowledge required for successful cost recovery policies.

This type of work in Belize will thus have general applicability to the world in a number of ways:

- It will add to the small body of knowledge about consumer behavior in medical care markets in developing countries. In Belize, it will fill a vacuum in this regard.
- It will help the HFS Project develop the technology of analyzing small, focused household surveys designed for quick diagnosis of utilization patterns, expenditure patterns, equity issues, and willingness to pay for health services as an input to cost recovery programs.
- Through this activity, the HFS Project will begin developing the intellectual overhead and analytical software required for wider application of these studies on a timely basis in our technical assistance work.

In summary, this demand-side work is important for Belize specifically because it will assist the government to develop and justify its cost recovery project. It will provide information on consumer behavior that has not previously entered health sector planning in Belize. Demand-side research is important for the HFS Project and the world because it will allow HFS to add to the body of knowledge about consumer behavior in medical markets and help to develop HFS expertise in this area so that this type of work can become a regular element of HFS technical assistance (rather than only applied research) in cost recovery.

Applied Research Proposal #1 for Belize

Adding an Economic Component to The Belize Family Health Survey, 1991

Following a suggestion by Harry Cross, Jerry La Forgia called Charles W. Warren of the Centers for Disease Control to inquire about a pending family health survey in Belize based on the Demographic and Health Survey instrument. Dr. Warren was amenable to HFS's adding questions on health financing to that survey. During his visit to Belize, Charles Griffin discussed the survey with Bibi Essama at USAID. She was enthusiastic about adding some health financing questions to it, so Griffin drew up a list of modifications to the survey instrument and reviewed them with her. These modifications are attached in Appendix 1. They include the following:

- A question on household income.
- Questions on payments made for different types of care for the mother during pregnancy and for the youngest five children during the previous two weeks.
- Modification of the choices listed for sources of care.
- A new section containing questions on other illnesses in the household during the previous two weeks, plus a table for entry of the responses.
- "Contingent valuation" or "bidding game" questions that attempt to determine willingness to pay for existing and improved government clinic services.

Bibi Essama estimated that these additional questions could be completed within five minutes by each respondent and could be accommodated within the existing budget for the survey. Essama agreed to transmit these questions to the Centers for Disease Control (CDC) and indicate her approval of the proposed changes. Griffin committed himself to following up with CDC after returning to Bethesda. He has discussed the changes with Charles Warren and faxed the changes to Warren.

Griffin made the following commitments⁶ to Essama for the HFS Project, under the assumption that the questions would be added to the survey:

- If there are any small cost overruns (\$3-4,000) in fielding the survey, HFS could help with them;
- HFS will finance the writing of one or two reports, as appropriate, based on the use pattern, expenditure, and "bidding game" questions;
- If HFS receives the data on the same schedule as planned for the CDC, HFS will stick to the same schedule in producing its report(s);
- HFS will present its reports during the seminar in Belize scheduled for 1991.

Griffin also attempted to identify local researchers who could be called upon to participate in this applied research activity. He met with Alvin Edgell, who is a social scientist at the University College of Belize. Mr. Edgell has 25 years' experience with CARE. Mr. Edgell identified others at the university who might be available to assist in the analysis, including Ron Olle (computer programmer), Timothy Palcia (management, Business School), and Joseph Palacio (anthropologist from the University of the West Indies). Mr. Edgell agreed to distribute consultant roster forms to these other individuals. It is unlikely that these other researchers would have the skills required to undertake the analysis of the demand data, but they may be good local resource people for future technical assistance. Mr. Edgell suggested that he would have some time available in 1991 to review the reports produced by HFS, addressing the issue of whether the questions asked are appropriate in Belize and whether they are written in such a way that Belizeans could benefit from them. He indicated that he had little time available for, nor was he interested in, the analysis itself. He has subsequently returned his form for the consultant roster and indicated that forms for his colleagues will follow. Mr. Edgell is probably a good local resource because of his familiarity with Belize, his long experience in technical assistance, and his interest in the policy issues on which HFS is working.

The time schedule for this applied research project is attached in Appendix 2. A budget will be drawn up when HFS is certain that the activity will go forward. It is worth noting that this activity will be a relatively low-cost undertaking because HFS has been able to take advantage of a survey effort that is already under way. The marginal cost for the HFS Project will be the analysis, publication of the report(s), and a trip to present the findings. It is a situation in which the benefits are so large, both for Belize and the project, and the marginal costs are so low, that it should not be a difficult decision to do the work.

⁶ Subject to standard procedures in approving applied research projects and expenditures of core funds by the HFS Project.

Applied Research Proposal #2 for Belize

Incorporating Applied Research into the Cost Recovery Program

While it is clear that the first applied research activity will begin immediately, this second activity is much more speculative. It is work that we would suggest be attached to USAID's upcoming technical assistance project, the health financing component of the Fiscal Policy Planning and Management Project. Thus it is contingent on the character of that project and many other unknowns that are to be sorted out in the near future. HFS has not committed much time to the details of this activity but will briefly outline what is envisioned.

The first assumption underlying this applied research activity is that the MOH decides to go forward with a cost recovery program. The second assumption is that USAID provides technical assistance to support the change in policy. Two features that would accommodate a good applied research project, but which are not necessary for its success are (a) that the MOH tests the policy change in one or two institutions before widening the scope of the reform to the whole country and (b) that at least one public hospital is turned into a quasi-independent institution with its own governing board, greater control over its staff, a fixed subsidy from the MOH, and freedom to create a cost recovery program. HFS is not recommending these actions but wants to make clear that the character of policy changes in Belize will affect the character and value of the research.

Under these circumstances, HFS would imagine an appropriate piece of technical assistance to be the provision of financial and management specialists who could help the staff of the institution in (b) above to transform itself into a self-governing body responsible for its own performance in terms of providing high-quality care that people will pay for, with control over its revenues and expenditures. Assistance would be required for a plan of how the central government would continue to subsidize the operation and for what purposes (such as how to target assistance to specific patients).

An applied research activity could be built into this technical assistance that would do several things. First, the same types of demand information would be gathered as envisioned under the first applied research activity described previously. This effort would be focused on the specific task of providing demand analysis helpful for setting prices and predicting revenue in the experimental facility(ies). It would also, for example, provide information necessary to understand the mechanics and cost of targeting MOH subsidies to specific income groups. Second, a simple cost study of the facility would be performed to find out what types of fees would be required to recover costs. The combination of the demand and cost studies would provide information on what price levels are feasible, what is the scope for cross subsidies within the hospital, and what level of continuing subsidy from the MOH would be required. Third, after the cost recovery program is put in place and people have adjusted to it, one or two additional demand surveys and cost studies would be undertaken to find out how use patterns change, and how the change in governance and the requirement for cost recovery affect efficiency within the institution. The information collected would help the

government evaluate the impact of its change in policy and allow for mid-course corrections. These activities might take a year in total to complete. However, they would not have to be repeated at every institution subsequently because most of the information would be of a general nature that could be applied to other areas of the country with only minor modifications.

Beyond these activities, which are complex enough to present a daunting task, it would be helpful to monitor the pricing activities of other providers in the area, to include both a hospital and its satellite clinics in the cost recovery activity, to investigate the potential for social financing mechanisms to help pay the bills, and to assist the government in focusing its public health budget in areas where cost recovery is not feasible. These expansions of the technical assistance, with associated applied research activities, would increase tremendously the value of the exercise by attacking simultaneously the entire range of issues that determine success in cost recovery and allowing cost recovery to feed directly into the financing of government services delivering preventive or public health activities. However, we must be realistic about the cost of such an effort and our ability to organize such a wide range of activities.

The experience of completing the transformation in one facility and developing the ability to replicate it in other public facilities (with much less, and possibly no, additional technical assistance and certainly without further applied research) would allow the MOH to proceed confidently with its cost recovery program. The knowledge provided by the applied research activities would allow the ministry to fine-tune its cost recovery policy, to demonstrate the success or failure of the policy reform before making it national, and to show clearly the tradeoffs that will have to be made among competing objectives.

As an aside, from discussions with a medical officer at a district hospital, it was clear that there is at least one individual in Belize who is willing to be the test case for exactly the type of project described above. If there is support at the facility level, it should not be difficult to argue for the test case at the ministerial level because a test case, properly undertaken and analyzed, substantially increases the chance of success when policy changes are made nationally.

APPENDIX 1: LETTER TO CHARLES WARREN AND SUGGESTED CHANGES TO THE BELIZE FAMILY HEALTH SURVEY

November 21, 1990

Charles Warren
Centers for Disease Control
Atlanta, Georgia

Dear Mr. Warren:

I just returned from Belize with Jerry La Forgia. I reviewed with Bibi Essama the possibility of adding some expenditure questions to your DHS-type survey, and she enthusiastically endorsed the idea, which I also understand was your reaction when approached earlier.

Attached you will find two things: a letter I drafted for Bibi to send to you, as I thought it would be appropriate for her to transmit the changes; and the questions I drafted while in Belize. Bibi thought that the additional questions could be handled within the budget she now has available for the survey.

What will we provide in return? I made the following commitments: (a) if there are any small cost overruns (\$3-4,000) in fielding the survey, we could help with them; (b) we will finance the writing of one or two reports, as appropriate, based on the use pattern, expenditure, and "bidding game" questions; (c) if we receive the data on the same schedule as planned for the CDC, we will stick to the same schedule in producing our report(s); (d) we will present our reports during the seminar scheduled for 1991.

We have two questions about the survey: (a) will there be a Spanish translation, and how will the Spanish-speaking respondents be handled? (b) how will the survey be pretested, and will we have an opportunity to revise the questions after the pretest?

Please call or fax me if you have any problems or need clarification. I think that my additions to the questionnaire should be self explanatory.

Sincerely,

Charles C. Griffin
Telephone: 301-913-0675

Questions Suggested for Addition to The Belize Family Health Survey, 1991.

Charles C. Griffin
HFS Project
4800 Montgomery Lane, Suite 600
Bethesda, MD 20814
November 14, 1990

Section I - Respondent's Background

113. Please estimate total annual income for the past year for your household. This estimate should include income from wages or salaries, rental property, farm products, business or trade, and any other income-producing activities by members of your household.

Annual income (rounded to nearest dollar): \$ _ _ _ , _ _ _

Section V - Maternal and Child Health

506a. (For last two children only) How much, in total, did you spend on these visits when you were pregnant with (NAME)?

Amount for visits: \$ _ _ _ . _ _

506b. (For last two children only) How much, in total, did you spend on drugs or vitamins required for your pregnancy when you were pregnant with (NAME)?

Amount for drugs or vitamins: \$ _ _ _ . _ _

509a. (For last two children only) Did you make any payments to the facility or birth attendant for the delivery of (NAME)?

- 1 Yes
- 2 No
- 8 Don't know

509b. (For last two children only) How much did you pay, in total, for the delivery of (NAME)?

Amount for delivery: \$ _ , _ _ _ . _ _

537. Change the list of choices:

- 1 Community Health Worker
- 2 Govt. Health Center/Clinic
- 3 Govt. Hospital
- 4 Private or Mission Hospital
- 5 Private Doctor/Clinic
- 6 Traditional Healer
- 7 Private Pharmacy
- 8 Other (specify) _____

537a. (Ask for all children) How much did you pay, separately for treatment and medicines, when (NAME) had the fever/cough?

- i. Amount for treatment: \$ _____ . _____
- ii. Amount for medicines: \$ _____ . _____

554. Change the list of choices (same as #537):

- 1 Community Health Worker
- 2 Govt. Health Center/Clinic
- 3 Govt. Hospital
- 4 Private or Mission Hospital
- 5 Private Doctor/Clinic
- 6 Traditional Healer
- 7 Private Pharmacy
- 8 Other (specify) _____

554a. (Ask for all children) How much did you spend, separately for treatment and medicines, when (NAME) had diarrhea?

- i. Amount for treatment: \$ _____ . _____
- ii. Amount for medicines: \$ _____ . _____

Section VII (NEW) - Other Health Questions

(INTERVIEWER: RESPONSES TO QUESTIONS 701 THROUGH 706 ARE ENTERED IN TABLE 7.)

701. I have asked whether your children have had fever or diarrhea during the previous two weeks. I would also like to know if you or anyone else in your household has been ill during the last two weeks. Please give me the name of each person who was sick so we can identify him or her for other questions. (INTERVIEWER: WRITE DOWN ALL NAMES FIRST, THEN ASK QUESTIONS 702 TO 706 FOR EACH ONE. IF NO ONE WAS SICK, SKIP TO QUESTION 707.)

702. What is (NAME'S) sex?

703. What is (NAME'S) age in years?

704. Where was advice or treatment sought for (NAME'S) illness?
(INTERVIEWER: PROBE FOR MULTIPLE RESPONSES AND WRITE THEM DOWN. 167,
FOR EXAMPLE, WOULD BE INTERPRETED AS 3 VISITS TO PROVIDERS 1, 6, and 7.)

0 None --> (INTERVIEWER: ASK EXPENDITURE QUESTIONS ANYWAY,
PROBING TO FIND OUT IF ANYTHING WAS SPENT. THEN
RETURN TO THIS QUESTION TO VERIFY THE RESPONSE)

- 1 Community Health Worker
- 2 Govt. Health Center/Clinic
- 3 Govt. Hospital
- 4 Private or Mission Hospital
- 5 Private Doctor/Clinic
- 6 Traditional Healer
- 7 Private Pharmacy
- 8 Other (specify) _____
- 9 Don't Know

705. How much was spent for treatment or advice for (NAME'S) illness on each
of the following: (INTERVIEWER: IF NOTHING WAS SPENT, WRITE A ZERO)

- (a) Visits
- (b) Medicines
- (c) Other treatment-related expenses, such as X-rays or laboratory
tests
- (d) Transport for the visit(s)

706. Were any of these expenditures for (NAME) paid by an employer, social
security, or other insurance?

- 0 No coverage
- 1 Employer
- 2 Social Security
- 3 Private insurance
- 4 Don't know

Table 7 - illnesses and injuries in the Last Two Weeks									
					(705) Expenditures in \$				(708) Insurance
(701) Name	(702) Sex	(703) Age	(704) Visit Location	(a) Visits	(b) Medicine	(c) Other	(d) Transport		
(Write)	(Circle)	(Years)	(Enter Code)	(Enter Amount)				(Circle)	
a		1-M 2-F			---	---	---	---	0 1 2 3 4
b		1-M 2-F			---	---	---	---	0 1 2 3 4
c		1-M 2-F			---	---	---	---	0 1 2 3 4
d		1-M 2-F			---	---	---	---	0 1 2 3 4
e		1-M 2-F			---	---	---	---	0 1 2 3 4
f		1-M 2-F			---	---	---	---	0 1 2 3 4
g		1-M 2-F			---	---	---	---	0 1 2 3 4
h		1-M 2-F			---	---	---	---	0 1 2 3 4
i		1-M 2-F			---	---	---	---	0 1 2 3 4
j		1-M 2-F			---	---	---	---	0 1 2 3 4
k		1-M 2-F			---	---	---	---	0 1 2 3 4

CODES FOR (704) VISIT LOCATION

- 0 None --> (INTERVIEWER: ASK EXPENDITURE QUESTIONS ANYWAY, PROBING TO FIND OUT IF ANYTHING WAS SPENT. THEN RETURN TO THIS QUESTION TO VERIFY THE RESPONSE)
- 1 Community Health Worker
- 2 Govt. Health Center/Clinic
- 3 Govt. Hospital
- 4 Private or Mission Hospital
- 5 Private Doctor/Clinic
- 6 Traditional Healer
- 7 Private Pharmacy
- 8 Other (specify) _____
- 9 Don't Know

CODES FOR (706) INSURANCE

- 0 No coverage
- 1 Employer
- 2 Social Security
- 3 Private insurance
- 4 Don't know

707. Now I will ask you several questions about fees you might be willing to pay for government health services. Suppose you become ill today and visit a government health center or hospital. Would you be willing to pay a \$15 fee in total for the visit and any medicines you might receive?

- 1 Yes --> Go to 712
- 2 No --> Go to 708

708. Would you be willing to pay a \$2 fee in total for the visit and any medicines you might receive at the government facility?

- 1 Yes --> Go to 709
- 2 No --> Go to 712

709. Would you be willing to pay a \$10 fee in total for the visit and any medicines you might receive at the government facility?

- 1 Yes --> Go to 712
- 2 No --> Go to 710

710. Would you be willing to pay a \$5 fee in total for the visit and any medicines you might receive at the government facility?

- 1 Yes --> Go to 711
- 2 No --> Go to 712

711. Would you be willing to pay a \$7 fee in total for the visit and any medicines you might receive at the government facility?

- 1 Yes --> Go to 712
- 2 No --> Go to 712

712. Have you ever used any of the following?

a. Government clinic

- 1 Yes
- 2 No

b. Government hospital

- 1 Yes
- 2 No

c. Private doctor/clinic

- 1 Yes --> Go to 713
- 2 No --> Go to 714

713. How much did you pay for your most recent visit to a private doctor or clinic, including any drugs you purchased?

Amount for private visit and drugs: \$ _ _ _ . _ _

714. Now I would like to ask you several more questions about fees in government facilities, but this time suppose that the facilities are improved. Waiting time is rarely more than one hour, waiting rooms are more pleasant, and medicines are always available. Suppose services are improved in this way, and you become ill today. If you visit one of these improved government health centers or hospitals, would you be willing to pay a \$15 fee in total for a visit and any medicines?

- 1 Yes --> Stop
- 2 No --> Go to 715

715. Would you be willing to pay a \$2 fee in total for a visit and any medicines at the improved government facility?

- 1 Yes --> Go to 716
- 2 No --> Stop

716. Would you be willing to pay a \$10 fee in total for a visit and any medicines at the improved government facility?

- 1 Yes --> Stop
- 2 No --> Go to 717

717. Would you be willing to pay a \$5 fee in total for a visit and any medicines at the improved government facility?

- 1 Yes --> Go to 718
- 2 No --> Stop

718. Would you be willing to pay a \$7 fee in total for a visit and any medicines at the improved government facility?

- 1 Yes --> Stop
- 2 No --> Stop

THANK YOU!

APPENDIX 2: TIMETABLE FOR THE BELIZE FAMILY HEALTH SURVEY

Belize Family Health Survey Time Line		
1990	September	Draft Questionnaire
	October	Draft Questionnaire Reviewed
	November	CSO Hires Interviewers and Supervisors
	December	Pretest, Finalize, Print Questionnaire
1991	January	Train interviewers, data entry personnel
	February	Complete field work and data entry
	March	Data available to CDC and HFS for preliminary report
	April	Preliminary reports finished and distributed
	May	Analysis begins for final report
	June	Analysis continues for final report
	July	Draft final reports completed
	August	Seminar based on reports in Belize
	September	Final reports printed and distributed

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