BULLETIN 337 ROYAL TROPICAL INSTITUTE

J. Toonen

COMMUNITY FINANCING FOR HEALTH CARE

A case study from Bolivia

KIT – HEALTH AND DEVELOPMENT

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JURRIEN TOONEN

ROYAL TROPICAL INSTITUTE – AMSTERDAM

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Summary

This Bulletin presents a case study of a Bolivian primary health care project in which two different types of community financing – direct fees and, subsequently, a prepayment plan – were introduced to help finance health services.

The case is first put in context: why community financing has appeared on the health care financing agenda in recent years, and its advantages and disadvantages. The project, *Proyecto de Salud Tiwanaku*, is then described. From the standpoint of community financing, during the study period (1981 to 1988) this project can be seen in three phases: at first, services were provided free of charge; later there were direct fees; and, finally, the community implemented a prepayment plan. The processes that took place in every phase are addressed using a multilevel approach (that is, taking the various actors into consideration), with emphasis on the perspective of the community and on the importance of local cultural concepts.

As the case study describes, community financing appears to have become a part of the agenda of the project because – at the point when donors were asking for increased financial sustainability – there was a match among the interests of the various actors (donors, NGO, Ministry of Health and community). The influence of local cultural concepts related to economics and organizations appears to have been one of the most important factors influencing the form taken by community financing, and in its success.

The effects of introducing community financing were considerably different for direct fees and for the prepayment plan. Community participation in decision making on health care services increased with the introduction of community financing – but was much stronger during the prepayment plan than in the case of direct fees. The financial input into recurrent costs of primary health care services produced by direct fees was less important (7%) than for prepayment (19%, or 48%, when project-related costs are not taken into account). Moreover, it is concluded that, although prepayment is more difficult to introduce, it is preferable to direct fees in terms of equity, sustainability, quality of health care and community participation in primary health care services.

Preface

During the 1980s it rapidly became clear in the South that, as far as financing health care was concerned, the sky was certainly not the limit. The budgetary constraints of governments that had previously promised free health care for all tightened considerably, due to economic recession and the structural adjustment rules they had to adhere to in order to receive foreign aid. Moreover, it had become clear that primary health care is not cheap. Governments, therefore, decided to change their rules for providing health care and to aim for a certain degree of cost recovery. They realized that only with the success of this attempt would there be a good chance of achieving sustainable health care for a growing population. In the non-government sector, organizations running health programmes are well aware from the moment a programme is initiated that in due course they must find alternatives to funds coming from abroad, by introducing some kind of cost recovery. Thus, in this sector, financing the provision of health care on a long-term basis presupposes a search for alternatives to funding by outside donors. As many health programmes in the non-government sector are community-based, it is not surprising that community financing is a favourite option. It usually fits the analysis and strategy the programme is based upon, and can build on institutional forms that have already matured.

Jurrien Toonen's study of a community financing plan in the highlands of Bolivia provides us with a great deal of insight into the difficult process of generating a sustainable plan. He offers ideas and information on a number of closely related and much debated issues. First, he defines the point of departure, by stressing the need for community financing; second, he gives a 'thick description' of a non-government health care programme based on the primary health care approach; third, he analyses the process of community financing and its implications, as it took place in Bolivia; and fourth, he shows how important community participation is to the process of creating sustainable institutions.

As emphasized in the conclusion, this case study certainly does not pretend to be a blueprint for 'how to do community financing'. On the contrary, it provides many statements about issues that must be considered in the specific socio-cultural and economic context each time a community financing structure is to be created to sustain the provision of health care. In this way the Bolivia case points out important principles which influence the process of introducing a form of community financing anywhere in the world. Some of these principles are economic in nature: they define the ground rules for economic feasibility. Others concern access to health care and implications for utilization patterns. Next, there are principles regarding what determines success and failure in community participation, including participation in a financing system. Accordingly, those involved in the process of shaping a community financing plan need sensitivity to and some familiarity with microeconomics, health services analysis and sociology. This appears to be a heavy load, but I am convinced that health workers in the field often already have considerable relevant

experience and knowledge. What they need most is support in systematizing what they have learned, and a challenge to help them realize that achieving community financing requires serious consideration of its context. This case study provides both the support and the challenge.

This small book is one product of the fieldwork of the health staff of the Royal Tropical Institute. It is a good example of an approach that emphasizes both systematic learning by doing and learning by systematically studying what others have achieved. Financing health care at community level is one of the subjects that will need attention for many years to come. I am sure this study is a significant contribution.

Pieter H. Streefland
Royal Tropical Institute

Introduction

Why did so many countries sign the Alma Ata declaration, with its aim of 'Health for All by the year 2000'? Some may have hoped that a primary health care strategy would be a cheap way to increase the coverage of their health services, especially in low income countries.* However, primary health care has turned out to be more expensive than expected (Chabot and Waddington, 1987), and at the same time structural readjustment of their economies has forced many of these countries to cut expenditures in the social sector as a whole, including health.

In part in response to this situation, there has been considerable interest in recent years in exploring the potential of the community for financing health care services. (This is not surprising, in view of the acute problem faced by most low income countries in raising the extra resources that will probably be needed if the goal of 'Health for All by 2000' is to be attained.) Therefore, many low income countries have introduced cost recovery of various sorts to improve the financial situation of their health sectors. This has led to an interesting debate within the world of policymakers, as well as in the health policy literature. These discussions have usually focused on economic issues: are the consumers of health care services willing to pay? how much should they pay? and can they afford to pay? Much emphasis has been put on equity, especially by those who criticize the concept of community financing: they ask whether introducing cost recovery will exclude the poor from health care services.

Practical problems are seen as another constraint. Careful planning is needed: charging fees makes great demands on the administrative and institutional strength of health facilities, especially since these plans are often introduced in systems that are already under pressure. Often a high degree of external (not necessarily foreign) technical support is needed to mobilize and sustain community efforts. Practical problems to be faced include: collection of fees, differentiation of fees, exemption procedures, decision making on utilization of fees. As de Ferranti points out (de Ferranti, 1985), many of the failures in implementing cost recovery have led to high social costs. Failed attempts also present the risk of a negative image, for both health services and the concept of charging fees.

From 1983 to 1988, the author worked for an NGO (non-governmental organization), within *Proyecto de Salud Tiwanaku*, a primary health care programme in the *Altiplano* (high plateau) of Bolivia. At the beginning of this period, services were offered free of charge, but the programme then moved towards cost recovery. This process, which will be described and analysed in the following chapters, occurred in three phases:

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* The term 'low income countries' is used here in preference to 'developing countries' or 'Third World'.

- 1980–1984: services were free of charge;
- 1985–1986: direct user fees for services and drugs were introduced;
- 1986–1988: a prepayment plan was developed, based upon contributions in kind (potatoes) and labour. This system was organized, owned, managed and supervised by a community organization.

The introduction of a cost recovery system had several implications for the health care services with respect to both utilization and the involvement of consumers. For example, the relative financial input of the population, donor agencies and the Ministry of Health were affected; there were changes over time in utilization of health care services; and the decisionmaking process also changed. There were also unexpected 'side effects', including the empowerment of the community that accompanied the implementation of cost recovery, and the strengthening of community organization.

The objective of this case study is to describe and analyse why and how cost recovery was introduced, as well as certain processes that took place before and after its introduction. This should suggest trends and success factors that may be important in formulating relevant policies and implementing cost recovery programmes elsewhere. It may also help in identifying indicators for monitoring programmes, and in formulating hypotheses for further research on cost recovery. Moreover, the case study describes a method of community financing that has not often been presented in the literature. The intention is not, however, to test a hypothesis (e.g. on the differences between direct fees and prepayment systems). This would not be possible, due to certain limitations:

- The Tiwanaku project took place under specific conditions. It was located within an agricultural subsistence economy, and the degree of organization of the Tiwanaku peasants differs from that of many other cultures.
- The study is a retrospective one: there were no controls for many of the variables; other variables that might have been interesting could not be included; and no baseline study took place (for example, there was no survey of the community to assess differences among the various socioeconomic classes).
- The three periods described for the Tiwanaku project were very short, too short for the various types of community financing to develop to their full potential, and to make a full assessment feasible.
- The study describes processes occurring over time. Each phase was affected by different factors. For example, the influence of hyperinflation and the structural adjustment of the Bolivian economy varied with time. Also, other project activities, in addition to those that are the focus here, will have influenced measures such as utilization rates.

The emphasis of this case study will be on qualitative data, on the analysis of processes that took place in the field. Among the facets covered will be the community factors that became evident during the study, such as the influence of existing cultural and organizational concepts on participation; the influence of prepayment in kind; and the influence of cost recovery on the participation of the community in the health care programme.

Chapter 1 provides the context of the case study, including brief information on cost recovery in the literature: why it is on the agenda, the advantages and disadvantages of community financing, and, if community financing is to be used, the available options. Definitions of community participation will be

Director of the NGO waits his turn, while members take the lead at a meeting of the Caja

briefly discussed; this often neglected issue is one of the most important for community financing. Bolivian data relevant to the case study, plus a description of the project, will also be given.

The core of the case study, the process of policy formulation, is presented in Chapter 2. This analysis uses a multilevel approach (van der Geest et al., 1990), describing the roles played by actors at all levels. Finally, some quantitative data (relative financial inputs and utilization rates) are presented, plus a qualitative analysis of the unexpected side effects. Both the participatory observations of the author and, where possible, the information from three external evaluation reports of donor agencies are used as data.

In Chapter 3, key issues raised by the case study (including the decision of the community to participate in community financing, direct fees versus prepayment, the effect of local cultural concepts, the organization and role of the community, the roles of others, and the effects of community financing on health-seeking behaviour, economic input, and equity) are discussed. Chapter 4 summarizes the lessons of the case study, including the need to collect information before introducing community financing, to allow the formulation of a strategy, and some possibilities for further research.

Much of the data used here was presented by the author in a dissertation for the MSc course on Community Health in Developing Countries, at the London School of Tropical Hygiene and Tropical Medicine. There, however, the focus was primarily on quantitative data (summarized in Chapter 2); the present Bulletin gives more attention to policy issues, and, as noted, to qualitative data.

1 Context of the study

Why community financing is on the agenda

In the 1970s and 1980s, the economic crisis decreased the financial resources available for health care. Among other factors, growth rates in low income countries (LICs) decreased, due to the oil crises of 1973 and 1982. The demand for LIC products decreased at the same time. Thus, in these countries there was less purchasing power at household level to pay for commodities that influence health, including food, health care, drugs, transport, water and sanitation.

At the same time, oil-producing countries had a surplus of money; their investments created a willingness among international banks to offer cheap loans (about 7% interest) to LICs. Eventually these loans resulted in deficits in LICs' balance of payments. This occurred partly because their economies could not afford payments on these debts, partly because their economies were not well organized enough to invest the loans in a proper way, and partly because demand for their products had decreased; but above all because interest rates increased quite rapidly (at one point to 17%). This resulted in heavy debt service payments for LICs, and their economies deteriorated. In the eighties, the age of Reaganism and Thatcherism, many LICs found themselves forced to implement adjustment policies for their economies. These were based on stabilization (freezing salaries; cutting governmental expenditures, including state subsidies) and on structural adjustment (decreasing imports, increasing exports). In most LICs, this meant first of all cuts in the social sector: education and health care.

The resource gap for health care in LICs in 1982 was estimated at US$ 50 billion annually: 14 times total external financial assistance. During the economic crisis external financing had increased by only 3–13%, which was not even enough to compensate for the effects of inflation or structural readjustment. At the same time, the share of health in national budgets decreased in 11 of the 14 lowest income countries (de Ferranti, 1985). While other factors (including donor pressure for local sustainability, population growth, and the failure of free-of-charge systems) were also relevant, this resource gap explains in large part the search for other sources of health care financing, and why community financing – in which the user pays for health care – is on the agenda.

Options for financing health care services

In discussing the financing of health care, it is critical to begin with the level at which services are to be financed. There are important differences between financing primary health care services (primary health care at village level, or health posts), and financing secondary-level health care (hospitals). Here, we are solely concerned with primary health care.

To improve the financial status of primary health care services, there is a wide range of possible options (Foster, 1988; Stinson, 1982); community financing is only one possibility. An obvious, but often overlooked, option is to improve the cost-efficiency of services. Better management, plus decentralization of

decision making, will often adapt the costs of a primary health care programme to local realities. Allocation of human and physical resources can be improved, for example by using generic, rather than brand-name, drugs.

Capital costs must be adjusted to match the capacity of the programme to pay the resulting recurrent costs. X-ray equipment, for example, should not be bought before it is certain that financing is available for personnel. Volunteers should not be trained if no funds are available for supervision. For transport, an important cost factor in many primary health care programmes, the cheapest possible solution should be found. Marginal costs must be taken into account: can the programme afford vaccination coverage that includes the smallest villages? Such questions should be asked (by donors too!) to eliminate 'waste' in the system, before thinking of increasing financial inputs to the programme.

Another option for the government is to increase expenditures for health care, in spite of ongoing adjustments to their economies. One way to achieve this would be to reallocate resources within the public sector, perhaps from other ministries (such as the ministry of defence), to health care. But a government can also create new financial resources, through such measures as taxes on alcohol and cigarettes, or national lotteries. Further, a government can seek external aid to provide additional funding. This, however, will increase foreign dependence.

Finally, there are various options involving cost recovery, in which beneficiaries pay, in some form, for health care. There are several considerations, no matter which option is used. An initial decision must be made about which costs community financing is to cover. This decision must specifically include supplies (drugs, vaccines, fuel), salaries of all personnel (including expatriates), infrastructure (buildings, equipment, transport), health-related programmes (water and sanitation), training (courses, health education), monitoring and evaluation. In each of these cases, payment of capital and recurrent costs should be discussed separately. Finally, all costs to beneficiaries must be taken into account. Not only their monetary contributions, but also labour (constructing health centres, volunteer activities with respect to health services) and time (waiting time, travel time, participation in health education) should be counted as payments into the system.

Among the options for community financing are, first, 'direct fees': fees paid by people when they are ill. This may include payment for drugs and/or services, such as consultations, diagnoses, and operations. Secondly, 'indirect fees' may be charged – prepayment in one form or another. One possibility is an insurance system for employees, who pay a fixed part of their salaries. But prepayment can also be used by those who do not earn fixed salaries. This could involve a fixed contribution, or health cards (for a fixed number of services or drugs) may be sold. Finally, charges may be paid in kind or in labour.

These options suggest that many ways lead to Alma Ata – to adequate financing for primary health care. There is no single best way to improve the financial situation of primary health care, and there is no single best policy for community financing. While this is often not done, policymakers have a duty to consider all other options for improving the financial situation of primary health care programmes *before* thinking of community financing; and, if

community financing is considered, to understand its advantages and disadvantages, and to assure that it is adapted to the local community.

Advantages and disadvantages of community financing

Cost recovery via beneficiaries is a quite popular option in multilateral agencies (like UNICEF) and for a number of governments. Many arguments pro or con user charges have been given (by, among others, Abel-Smith, 1988; and Griffin, 1987); some will be briefly summarized. Those who favour these charges say there is a need for additional funding for health care, and at the same time each community has some financial potential. Households in LICs already spend substantial amounts of money to purchase health care from the private sector, whether modern or traditional; thus they seem to be willing and able to pay. Community financing can also attract resources that would otherwise not be used, such as labour, local materials, and contributions in kind. Moreover, introducing community financing could increase cost-efficiency, making health care cheaper. For example, efficiency of utilization of these services would be expected to increase, because people would make less frivolous use of health care services – fees would provide a disincentive to overuse. User charges could also be expected to decrease the amount national governments must spend on health, because there would be less need for subsidies. The argument is that the money thus saved could be used for productive sectors, which in turn would eventually help to finance the health sector.

Community financing is seen as being favourable to health care consumers. 'Free of charge' services provided by the public sector have not proven to have great impact: the quality of these health services has always been low, and the supply of resources always inadequate. Introducing community financing should improve this. For example, as demand decreases, waiting time at health posts will decrease; and because of community funding, drug supplies will be assured. Community financing may produce funds to pay for externalities (preventive health care, water and sanitation, etc.) that will benefit all members of the community, as well as the services themselves. Community financing can complement formal social security systems, which normally cover only the employed. Community financing is also a tangible demonstration of community participation. It can lead to empowerment via participation of the community in decision making with respect to health care services. Community financing gives the community the right to demand that services are acceptable, and responsive to their priorities. Abel-Smith also argues that charging fees will create more awareness of health, which is desirable. Finally, he states that if contributions are in kind, it would hold some promise of equity in areas without significant wage employment. A prepayment system could also increase feelings of solidarity between the sick and healthy.

On the other hand, there are doubts regarding user charges; many of these have to do with equity. Abel-Smith suggests a need for caution: community financing favours those health services for which demand is high. Also, except for the points just noted, it does little to promote equity. Some argue in fact that charging could decrease equity: there may be 'willingness' to pay, but for those

in low income countries who are expected to use primary health care services, 'affordability' is often lacking.

However scarce, health care may be regarded as a commodity. Seen in this light, while only those who are ill pay, this commodity is also available to the healthy, who are not charged. Charging can be seen as placing too great a burden on the poor and the sick. Diseases are unpredictably distributed in the population; public health needs are greatest among those who can least afford to pay, and who often have less geographical access to health services. In financing health care, risk sharing is necessary.

Cost recovery is often introduced in rural areas and shanty towns, while services are often maintained free of charge in politically sensitive areas, and employees of 'modern' organizations (the military, the administrative sector) are often exempted from payment. Community financing may be an excuse for government to avoid some of its responsibilities for paying for health care. Such financing can result in the community paying the national external debt, while this debt has usually financed items from which they derive little benefit.

Equity can be seen as the most important argument against user charges. Griffin, however, states that in the end charging will have a positive effect on equity. He argues that both poor and better-off people already pay 2–5% of income for health services, and that there are a variety of payment options that are affordable, even for the poor. It is also possible to differentiate charges according to level of quality: this would have an equitable effect (the 'Robin Hood' principle).

It is not easy to draw firm conclusions from these discussions. Many of the arguments are hypothetical, and have not been tested in the field. The evidence comes primarily from cross-sectional and a few retrospective studies, with the consequent limitations. Field observations relevant to these arguments will be presented in this Bulletin. For the moment, we conclude that there may be a place for community financing of health care; that is, problems of equity can be solved if several criteria are taken into account:

- have other options for financing (including limiting expenses and obtaining government support) been explored to their full potential?
- what will the level of fees be? is this affordable for the community? have seasonal variations in ability to pay, etc., been considered?
- how will the funds obtained from cost recovery be used?
- how will those who cannot afford to pay be taken care of?
- how will policies regarding cost recovery be formulated – who will take part in decision making?

This last point brings up an aspect of community financing that has often been overlooked: the 'participation' of the community. The question is whether this will involve only participation in paying the cost of health care, or will decision making on policies, including quality and type of services, be included?

Community participation in financing

The Alma Ata declaration sees community participation in primary health care as essential. It is interesting to see that, in the literature on cost recovery in health care, community participation always means playing a part in paying these costs. An attempt will be made here to define community participation for the purpose of this study. Rifkin et al. (1988) stress that before defining community participation, it is important first to define the 'community': a group of people, living in the same geographical area, sharing the same basic values and organization. Navarro (1984) adds that a community shares the same basic interests; it is a set of power relations which divide individuals into different categories – power is (unequally) distributed according to these categories. Often, the definition is based on epidemiological criteria: the community as target or risk group. However, these criteria will not be used here.

Almost all definitions of community participation are very complex and extensive; the simplest is that of Abel-Smith (1988): 'People who live together in some form of local social organization, getting together and undertaking collective action – a concerted action for the benefit of people who share a common interest or purpose.' To approach a definition for use in this study, we add further characterizations. Rifkin et al. (1988) define community participation needs: the community actively pursues identification of its needs, takes decisions and establishes mechanisms to meet these needs. In the context of primary health care, this process focuses on the ability of these groups to improve their health and health care and by exercising effective decisions to force the shift in resources with a view to achieving equity. Muller (1983) sees community participation as increasing people's control over social, political, economic and environmental factors that influence their health. This is similar to Navarro's definition: individuals (or families) assuming responsibility for their own health and welfare.

Over time, many lessons have been learned with respect to community participation. Among the major points: Foster (1982) warns that, contrary to popular belief, communities are not homogeneous – nor do they instinctively see a reason to cooperate for the 'common good'. Particularly in poor areas, individual concerns often override community goals; only when scarcity of resources is remedied and people become better off economically can cooperation take place. Even then, cooperation requires that people see the 'common good' as being in their individual interest as well. Harpham et al. (1988) suggest that participatory diagnosis can help to overcome these obstacles. According to Freire (1987) this should be based on an 'action-reflection' approach: the community undertakes action that reflects the experiences it has had, based on former actions. Ideally, this should be stimulated by a catalyst: someone (a leader or an outsider) who challenges (*'problematizar'*) the solutions proposed by the community.

Rifkin (1988) describes other lessons regarding community participation. First: it is not possible or even useful to state a universally acceptable definition of community participation. Second: it is not possible to build broad, self-sustaining community participation based on health services alone. Third: it is not possible to consider community participation outside a political

context. Fourth: it is not realistic to propose a model for managing community participation in health programmes. She therefore proposes asking the following questions when participation is considered: 'why' participation, 'who' participates, and 'how' do people participate. The benefits, activities, implementation, monitoring and evaluation, and planning of the health services are determining factors with respect to participation.

Bolivia: demography and epidemiology

Bolivia is, with the exception of Paraguay, the only Latin American country with no coastline on either the Atlantic or the Pacific Ocean. This has serious implications for its potential for imports and exports. The country covers 679,619 square miles; in 1987 population was estimated at 6.7 million. Population density is thus 10.8 persons per km^2, and the population growth rate is 2.6% per year. The latter results from a stable crude birth rate of 40/1000/year and a crude death rate that has declined from 29/1000 in 1950 to 16/1000/year in 1985. Fertility in Bolivia is high: 6.7 pregnancies/woman of 20–45 years, with a higher fertility rate for rural women (up to 8 pregnancies/woman for illiterates). (World Bank, 1989).

Forty-three per cent of the Bolivian population are under 15 years old; and 48% live in localities with more than 2,000 inhabitants: the rest live in rural areas where mountains, rivers, and lack of roads make travel difficult. In the country as a whole, 36% speak only Spanish, 14% only Quechua, 8% only Aymara and 42% Spanish plus another language (Census, 1976). The Altiplano, where Proyecto de Salud Tiwanaku is situated, includes 16% of Bolivia's land but 38% of the population.

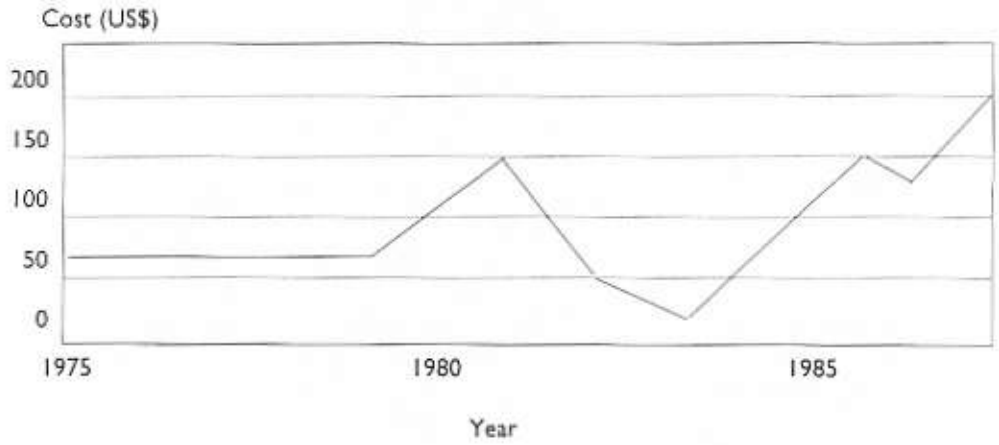
Economic situation

After many coups d'état (since 1951, these have occurred on average once every 9 months) a democratic government was elected in Bolivia in 1982. In 1983, hyperinflation began to hinder economic development, with GDP shrinking more and more, and inflation rates developed as shown in Table 1 (Cole, 1987). In August 1987 a readjustment of the Bolivian economy was announced. The strategy was, in brief, stabilization: a freeze on salaries, cuts in social (including health) sector expenditures, liberalization of imports and exports, plus in effect legalizing the black market in currency by tying the monetary system to the US dollar. This resulted in 1989 in economic growth of 0.4% and inflation of 16%, but at a high social cost: 70% of miners and 20% of civil servants lost their jobs (World Bank, 1989). Between 1975 and 1988, the cost of a basic basket of the goods a family needs increased as shown in Figure 1 (USAID, 1988). This figure demonstrates that, although many conditions were difficult for the Bolivian population during hyperinflation, basic supplies were more affordable than during the readjustment of the Bolivian economy.

Table 1 **Annual inflation rates in Bolivia, 1983–1985**

1983	330%
1984	2,300%
1985	29,800%

Figure 1 **Evolution of cost of basic basket of goods, 1975–1988**



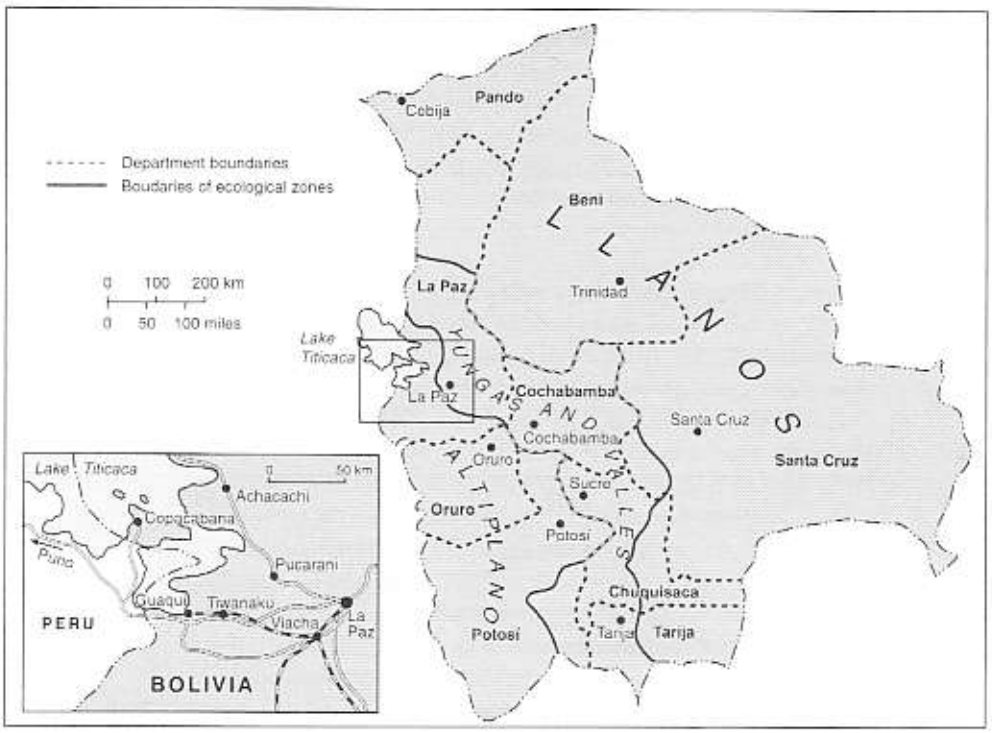
Epidemiological data and health care

Mortality rates in Bolivia are among the highest in Latin America. Maternal mortality is estimated at 48/10,000 live births, child mortality at 163/1000 live births. However, there are important differences within the country. For example, the following ranges have been recorded for child mortality per 1,000 live births (USAID, 1988):

- a range of 97 to 134 in urban areas, against 120 to 210 in rural areas;
- 75 for literate mothers versus 220 for illiterate mothers;
- 126 in Spanish-speaking mothers, but 239 in mothers who speak Aymara.

The most important reported causes of infant and child mortality are acute diarrhoeal diseases; acute respiratory infections; perinatal infections; and infections preventable by immunization. The most important causes of morbidity in adults are tuberculosis, trypanosomiasis (Chagas' disease) and skin infections – all typical 'diseases of poverty' (MOH, 1986).

Health care accounts for 1.9% of the national budget. The Ministry of Health (MOH) of Bolivia employs around 11,000 professionals. Of these, 1,500 are medical doctors, 250 are dentists, 750 are nurses, and 2,600 are auxiliary nurses. In urban areas there is one doctor for every 1,000 Bolivians; in rural areas this figure is one per 7,000 (World Bank, 1989). The MOH is, however, not the only entity that provides health care. According to the Ministry of Health, of all patients in 1986, 36% were seen by MOH facilities, 28% by the social security system, 7% by private commercial clinics, and 29% by non-profit NGOs. However, the MOH states that 30% of the patients who were ill had no access whatsoever to services.



Bolivia, with an enlarged map of the project area: most activities take place within 50 km of Tiwanaku

2 Proyecto de Salud Tiwanaku

In 1954, Radio San Gabriel was founded in La Paz to broadcast educational and pastoral radio programmes in Aymara, the most prevalent local language in the area. The Roman Catholic Archdiocese of La Paz is responsible for the radio station, while its activities are carried out by the La Salle lay brotherhood (*Los Hermanos de La Salle*). At present Radio San Gabriel broadcasts on AM frequencies in Aymara for the rural population, and on FM in Spanish for an urban audience.

In 1980, a Bolivian medical doctor was working in the Tiwanaku area on assignment from the Ministry of Health – his 'rural year', a requirement for obtaining a medical degree. With the villagers of Tiwanaku, he concluded that health care services in the area were poor: there was a shortage of medical equipment and supplies. Together they requested that Radio San Gabriel start a health care programme. Radio San Gabriel agreed that this was necessary; also, they saw Proyecto de Salud Tiwanaku (PST) as a way of putting the health education offered by their radio programmes into practice. They then asked donor agencies (USAID and the Inter-American Foundation) to finance PST. As a result, a health centre was built in Tiwanaku, as well as sixteen health posts in surrounding villages; transport, medical equipment and supplies were provided; and auxiliary nurses were trained to provide health care at the health posts. (Appendix 1 illustrates the activities of Radio San Gabriel, including PST.)

PST started activities in the highlands of Bolivia in late 1982. The direct catchment area (the area it serves) is situated near Lake Titicaca, and the Peruvian border. It comprises 48 communities of 500 to 2,500 inhabitants each, reaching a total population of about 60,000. In this area, three communities are clearly visible as villages (*pueblos*), with an aggregation of houses. Tiwanaku is one of these. The other villages (*comunidades*) consist of dispersed houses. In this area, PST provides curative and preventive basic health services (no hospital services are included), plus health promotion – and community-based health activities.

Health care workers in the area were paid by the project at first, but over time more and more salaries were taken over by the MOH. At the end of the study period, personnel included two doctors (one paid by PST, one by the MOH), a dentist, a nurse, two auxiliary nurses (all paid by the MOH), and administrative personnel (paid by PST), all working at the health centre of Tiwanaku. One auxiliary nurse lives and works at each health post (when the study period ended, 10 nurses were paid by PST, and 7 by the MOH). Finally, PST had trained a number of voluntary village health workers: 23 female health promoters, and 14 administrators of the prepayment system described below.

For this study, the history of PST will be divided into three phases. At the initiation of the project, health services were provided free of charge. In 1984, the Bolivian doctor was replaced by two expatriates, and an external evaluation took place. A decision was made to have the programme focus more on preventive care, and to charge for curative services and drugs. The community

appeared relatively uninterested in preventive care, so various types of health education campaigns were started. Later, active community participation was sought, and the community decided to start a prepayment system to pay for health care. Thus the three phases, according to the type of community financing, were:

- Phase 1, 1980–1984: health services provided free of charge;
- Phase 2, 1985–1986: direct user fees for drugs and services were introduced;
- Phase 3, late 1986–1988: in addition to direct user fees, a prepayment plan was introduced.

This three-phase categorization makes it possible to assess differences between various types of community financing, and to look both at how policy making came about, and at the effects of different forms of community financing on both health care and its consumers. Events during these phases will be briefly summarized in the following paragraphs; explanations and background information regarding this history come later, under 'Policy making in PST'.

During Phase 1, the community had contributed labour, e.g. for construction of health posts, but health care services (consultations, drugs, and so forth) had been free of charge. In 1984, however, PST had to seek financial support from its beneficiaries to recover the costs of health services. The several attempts made to start a prepayment system had not succeeded: therefore, in Phase 2 PST decided to charge direct fees. These fees included charges for consultations and drugs; preventive care, government programmes (such as control of tuberculosis and diarrhoea), promotional activities, and health education were still free of charge; pregnant women and children under five years of age were exempted from payment. Funds from the direct fees were used only to buy drugs, and not, for example, to pay salaries of health care workers.

In the third phase a prepayment plan, the *Caja de seguro de salud campesina Tiwanaku* (a health insurance system for peasants, hereafter to be called the *Caja*), was founded as a pilot project in 14 of 48 communities. Prepayment in the Caja was based on the production of potatoes on communal lands. This third phase will be the focus of much of this Bulletin.

To become a member (*socio* – an associate) of the Caja, a family had to contribute seed potatoes to the community organization. In addition, as a yearly contribution to the Caja, at least one family member had to work on the community lot for production of potatoes. Work included seeding, harvesting, and cleaning the lot, and was usually done on specific days, together with all other members. Some of the harvest was kept for use as seed potatoes in the following year; the remainder was sold on the market. Profits were used to pay for drugs, to pay a bonus to the auxiliary nurse, and to renovate the health centres.

Initially, there were separate prepayment systems in each community. In less than a year, this changed: the various prepayment plans united, becoming 'the Caja'. The expectation of the Caja was that every community would plant the same quantity, using a plot of land of the same size, regardless of the number of members present in the community. The local organization, however, was decided by each community, and differed substantially from one community to another. In some, all inhabitants had to want to take part; if they did not, the community decided not to enter the Caja. In others it was enough for a part of the population to be interested.

Any family that wanted to join could do so by providing the labour of at least one family member. This gave all members of the household a right to 'free' health care services at the Tiwanaku health centre and local health posts. When the Caja had been in existence for one year, members received access to the Torax Hospital in La Paz. Contributions to the Caja (in labour or seed potatoes) were independent of both the number of health care services used, and of risk factors such as age. Patients who were not members could receive services, but had to pay direct fees for drugs and services; such money went to the Caja.

Responsibility for checking on members' contributions and for granting exemptions from payment rested with individual communities. Such checks were carried out by using health cards, which were given to families when they turned in an initial lot of seed potatoes. Thereafter, each time a family member worked on the community plot the person in charge would sign the health card, giving the household the right to services free of charge. Also, the health centre registered all member families.

Those who had initially planned PST did not have a say in the management of the Caja, although they supported it with enthusiasm. It was an independent people's organization, headed by representatives elected by each community. Together they formed the executive body of the Caja, the 'health defence committee'. Executive tasks were distributed among various committees, including the administration committee (responsible for day to day management, including enrolment in the Caja, registration of the harvest, and bookkeeping), the 'vigilance committee' (which monitors the work of the administration committee), and committees for education and trade. The education committee, along with a technical committee, is in charge of raising awareness (prevention!) in the communities, and for training the representatives. The trade committee, on the other hand, is very much linked to the specific nature of the Caja: it is responsible for the commercialization of potatoes. Every three months, a general assembly of the Caja takes place, in which at least 10% of members from each community must participate. Here each committee must report on its activities and financial accounting. An organization diagram of the Caja is shown in Figure 2.

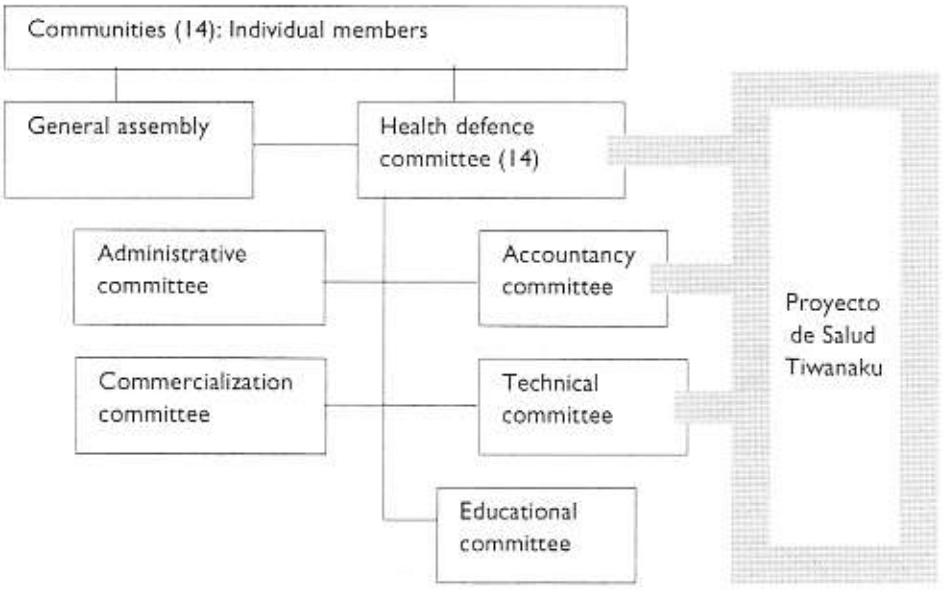
A multilevel look at policy formulation

The major issues raised earlier will be addressed in this section, including why community financing appeared on the agenda; the influence of local cultural concepts on policy formulation; the effects on community participation; the financial input from community financing in PST; and the effects on the utilization of health care services. Using a multilevel approach (van der Geest et al., 1990) this implies asking both what happened, and why it happened; and, above all, looking at the role of the various actors, their interests, and the effects on the programme and its consumers.

The appearance of community financing on the agenda

Among the actors and interests involved were the *donor agencies*, the Inter-American Foundation (IAF) and USAID. They saw the project as an interesting way to allocate their budget for health care in Bolivia: an NGO like Radio San

Figure 2 **Organization diagram of the Caja de Seguro de Salud 'Tiwanaku'**



Gabriel (RSG) was thought to be a more reliable partner than the MOH for starting health services in the area. RSG could broadcast health education programmes, and had the organization necessary to create a programme that was financially and organizationally sustainable.

The donors planned to finance the creation of infrastructure during a four-year period, after which they could withdraw, with the MOH taking over responsibility. During these four years, RSG was to create the conditions for the MOH to assume responsibility, including training auxiliary nurses as a source of inexpensive labour for years to come, and organizing a revolving fund to pay recurrent costs of at least essential drugs. In Phase 1, however, after health facilities had been constructed, years passed before donors sent supplies and equipment. (Because of a coup d'état, delivery of inputs – from transportation to drugs – was delayed for four years.) This not only led to a negative image among the local population, but also made it difficult to begin curative services.

Before Phase 2 began, USAID carried out an external evaluation (Favin, 1985). As a result, USAID withdrew as a donor, finding too little perspective for future sustainability (no cost recovery had begun), and little measurable benefit from their investment (low utilization rates and few promotional activities, including under-use of the pedagogical potential of the radio station). Therefore, in the second and third phases, IAF, which saw external conditions (inflation, lack of donor support) as the primary causes of the problems, was the only donor. But IAF did not take over all USAID financing. Thus there was an urgent need for community financing; without it the programme could not have continued.

A second external evaluation (Vargas, 1986) concluded that health education, preventive care, and utilization of services had improved, and that due to the Caja active community participation had begun. This suggested to IAF that they

had been right in deciding to go on with financing. They were more interested in investment in the development of local campesino organizations, and in the participation of the community in health care decision making, than in demonstrable cost–benefit relationships. Thus IAF decided to continue aid into the third phase.

Another actor was the *Ministry of Health*, which had no means to finance a health care programme in a rural area; the major part of its limited funds was spent in cities. Moreover, the MOH knew its services in the area were perceived as being very bad. Therefore, it was happy to receive the donors' offer to pay the capital costs of PST, knowing that the infrastructure (health posts, jeeps, medical equipment) would become MOH property after the four-year project. Thus the MOH did not refuse the offer and did not complain about its lack of involvement in PST policy formulation. Neither the MOH, the NGO, nor the donors assessed the capacity of the MOH to pay recurrent costs after this four-year period. As noted in the final section of this chapter, related problems were already apparent in Phase 1. When this phase ended, the MOH had even greater financial problems, due to the beginning of the structural adjustment programme. This made it even more necessary for the NGO to consider alternative funding.

The MOH agreed to the introduction of direct fees in Phase 2 because these were similar to fees they were already planning to charge in other areas. Further, this was seen as a possible way to pay recurrent costs after the first four years, when the MOH would be in charge of project activities. There were many doubts, however, about the organization of the prepayment plan in Phase 3: the MOH had no control over the funds (since this rested with the community), and in fact the community began to make demands on the MOH, using the prepayment funds as a power base. At one point, for example, representatives of the Caja demanded that the District Medical Officer be changed, because his attitude towards patients was very poor. Another time they demanded that the MOH take over more of the salaries of PST's auxiliary nurses, to make these salaries secure for the future. They used the fact of their payments for drugs and salary bonuses for the auxiliary nurses (which the MOH could not afford to pay) as an argument in the negotiations. Then the MOH – even though the plan fitted in the national health policy, including cost recovery from beneficiaries and active community participation – began to ask RSG if the prepayment plan was in fact a peasants' political organization.

The NGO, Radio San Gabriel, got involved in the project not only because it was convinced of the need for health care in the area, but also because Proyecto de Salud Tiwanaku offered several advantages for the NGO itself. There was the opportunity to put the health education and promotion of self-reliance covered by its radio programmes into practice. But also, for some time RSG had wanted to broaden its activities beyond those of a radio station, moving more in the direction of an NGO. Finally, the project was a way to improve the public image of RSG.

In Phase 1, RSG defined the policy of the project with the donors, without involving the Bolivian MOH, health care workers, or the local population. The distribution of health posts, for example, was decided without discussion with the local communities. The donor demanded community financing; therefore it

appeared in the policy of the project. RSG was quite hesitant to implement it, however, due to practical problems. For example, there was a high rate of inflation, and RSG believed the people could not afford to pay. But also it feared charges might negatively affect its image. Since PST had been established, several (in fact, 13) other NGOs had begun providing health care of varying sorts, and none charged for services. Moreover, they gave presents to people to attract 'customers': the competition between NGOs was quite serious. At the end of Phase 1, RSG feared the project would fail; the results were not very promising. The Bolivian doctor was fired, partly for this reason. RSG then contracted two expatriates (including the author), hoping they would improve project results. In Phases 2 and 3, RSG put these two expatriates in charge of all policy making and resource allocation, except for the administration of donor funds.

The roles played by *health care workers*, as actors, varied as the participating health care workers changed. The Bolivian doctor was given only technical tasks; he had to leave policy making to the NGO. Only on the issue of community financing did he have some influence: he withdrew the issue from the agenda. This was in part because he was a native of Tiwanaku, but also he and the auxiliary nurses were afraid of losing clients to other NGOs. Their activities had just begun; it was necessary to 'create a demand' for Western-style health services, especially since their salaries and futures depended on the success of PST. The argument they used, however, was that the beneficiaries would not be able to pay.

The two expatriates (the professionals who were the 'planners' in the second and third phases) were quite familiar with the project and the area. They began their work with certain hypotheses; to back these up (and to improve the appeal of the project to NGOs and donors, by being able to state 'this is what people need and want') they implemented a needs assessment in the communities. The results appeared to confirm their ideas: a demand for improvements in the quality of services, including curative services, was indicated. They decided to give more attention to training and supervision, improving the health information system, preventive care, health promotion and health education.

The planners had to reorient the project towards sustainability, including financial sustainability; this was an acute problem since one donor was about to leave the programme. To make it possible for the MOH to take over the project in the future, they reduced recurrent costs. They made several attempts to start a prepayment plan; these failed, since the community refused to participate. Later it was realized that this was because the community had not been sufficiently involved in making the plans. When the planners were unable to start a prepayment plan, they introduced direct fees. The community was not happy with this initiative, but the planners did not see a need to seek their approval (since direct fees suggest the availability of services, which people then decide whether to use or not). Instead they tried to explain the concept of a revolving fund, comparing health care costs with the costs of their agricultural enterprise.

When Phase 2 ended, the planners had the impression that the community was not actively 'participating' (see the remarks on community participation in Chapter 1), even though this had often been invited. They looked for strategies

to get local population more actively involved in decision making, and decided to challenge community members. They invited all heads of the *sindicatos*, the peasant trade unions, (in their capacity as 'mayors', as described below) in the area to a meeting, and explained that the MOH would take over the project within a short time. The mayors did not find this an attractive option. They did not have confidence in the MOH, and expected the change would result in the existing equipment being moved to other places, and so forth. The planners asked them to suggest an alternative, but they were unable to do this. This time the planners, instead of providing one of their own, asked the mayors to look for a solution and come back in two weeks. When the mayors came back with the idea of creating a 'defence committee' for health – to deal with external relationships with the MOH, and needs such as maintaining control over the health care equipment in the community – the planners confronted them with new questions: what such a committee would do; what to do if there were nothing to 'defend' (that is, how to keep up interest in the committee during a period when there were no problems). Again the mayors were asked to find a solution.

This began a new process, broadening the issue: instead of asking community members to give feedback on the planners' solutions, the planners gave feedback in the form of posing questions related to the solutions proposed, first by the mayors and later by the defence committee. Thus the role of the professionals changed. They had been simply planners of the project, but now they were a catalyst for collective action, in a process approach (that is, with emphasis on the process, rather than on the outcome; this resembles the action–reflection model of Freire, 1987). One result was that – in response to a question about who would have the power in the project, and why – community representatives themselves proposed a plan based on prepayment in kind.

As the Caja developed, the professional planners left decision making to the community and its representatives, but they facilitated its development however they could. Clearly the Caja was in their interest; the community was participating actively in PST and had started a prepayment system; both were in accord with the planners' objectives for PST. Among the ways they were able to support the Caja were:

- publicity on the radio station;
- creating a guaranty fund (first-year costs of the Caja were covered by RSG, so that its income could be put in a bank account);
- acting in an advisory role for organizational matters;
- providing safeguards – an accountancy role for the Caja's bookkeeping, and acting as an independent arbiter in checking the harvests of the various communities.

This last set of 'safeguard' roles may have been assigned to the planners because they were expatriates: they did not belong to a particular community or local social class. But also, they had gained the confidence of the local population. This role turned out to be very important, as will be seen below.

The role and involvement of the *community* also varied throughout the phases of the project. Initially, representatives of the villagers of Tiwanaku were asked by the NGO if they would like to have health care services in the area. Many had visited clinics and hospitals in the capital, and were interested. Moreover, they

felt an archaeologically famous city like Tiwanaku had a right to access to modern health care, and were willing to build the needed facilities. They were not, however, prepared to pay the recurrent costs that followed: they believed that, having paid the capital costs, they had already done enough. This did not change in the second phase, although some were willing to pay for the new drugs – because they were imported from Holland, and therefore presumed to be better than the national brand. The low quality of these drugs had been a frequent complaint.

The idea of prepayment was brought up by the communities themselves in Phase 3; this had a great deal to do with the fact that participation in payment of costs was expected to increase their decision making power (see the section below on effects of community financing on community participation). However, the methodology of the planners, who pressed the community to look for a plan that was feasible for them, was also important. The resulting solutions fitted the cultural, social and economic possibilities. As discussed in the following section, cultural concepts were decisive in the development of community financing for PST.

The influence of local cultural concepts

Ancient Andean cultural concepts and organizational forms highly influence all health-related activities in Bolivia. In this Bulletin, the emphasis will be on cultural concepts regarding the distribution of political tasks, and on the economic concepts of the community, which have proven very important to this case study.

Economic concepts. A number of economic systems and concepts are found within the Aymara culture in this part of the Andes. For example, *ayni* (payment in services, or occasionally in goods) is an important basic Aymara institution, in which peasants set up a system of exchange with respect to work. For example, after having received help from someone in the community in building a house, the recipient owes the helper labour or products (like potatoes). A person who is ill (or his relatives) owes the traditional healer a certain amount of work or products in return for treatment.

The ayni system may explain why in Phase 1, after the community had contributed to capital costs (giving local materials and labour for the construction of PST health posts), they did not want to pay more to cover recurrent costs (services and drugs). They felt they had a right to demand health care free of charge, in return for their gift.

In the ancient Aymara culture, trading was always based on payment in kind, not in currency. Silver and gold had not a trade value but a sacred value: they belonged to the gods and were used only in rituals. Further, both Inca and Spanish conquerors included demands for silver and gold as a part of their oppression. For both reasons, monetary payments still have a symbolic value, in addition to their current use as a means of economic exchange (Platt, 1987). This may partly explain why there was little response to the direct fees strategy of Phase 2: fees were charged in currency. It was very hard to convince people to pay for services and, to a lesser extent, for drugs.

Turqasina (exchange) – bartering one product for another – is another important concept in the Aymara culture. Clearly ayni and turqasina had an important influence on the local creation of a prepayment system based on potatoes. Most community members were much more willing to pay in kind than in money. In Phase 2, treatment by a doctor or nurse at a patient's home always meant arguing about the fee. Often however, even after paying in cash, the patient offered a payment in kind that was many times the cash payment. Charging in kind for services was much easier for people to accept.

The Caja, as proposed by community members in Phase 3, shows similarities with a subsistence strategy used in Inca times. During their occupation of the Bolivian highlands, the Incas created a strategy for the local subsistence economy. The harvest of every peasant farmer was distributed in the following way: 10% for the Inca king, 10% for the leaders of the federation of communities (to be used for visitors, religious feasts, etc.), 25% for the community (as a reserve, in case of bad harvests); the remainder was for personal use. This strategy had not been followed in the area for a long time. However, some anthropologists suggest that this ancient concept may have played an important role in evolving a prepayment plan (T. Platt, personal communication). This would help to explain the success of this plan, even though the community financing literature regards such systems as very difficult to create, and even though the planners had failed several times in attempts to establish similar efforts. Thus we see that on the Bolivian Altiplano concepts such as risk spreading, disaster preparedness, prepayment, and community organization used in such a plan had been present since ancient times.

Organizational concepts. Communities in this area have been organized into units called *ayllus* for centuries. Since Bolivian agrarian reform (1951), the government has organized the ayllus into sindicatos. They are superimposed on the original organizational structures of the ayllus, and have geographical boundaries that are often, but not always, the same. The sindicatos are at the base of the pyramidal organization that makes up the Ministry of Agriculture. Leaders of the sindicatos always serve as mayors, but they may or may not also be the leaders (*jilacatas*) of the traditional ayllu. It was with the mayors, not the jilacatas, that the NGO started negotiations for creation of a health programme. In the second phase too, it was the sindicatos who were consulted for a needs assessment. In the third phase, at first the mayors were consulted; later, the representatives assigned by the community were often more closely related to the ayllu structure.

In these communities, leadership is not something to be aspired to, which benefits the individual; rather it is a specific duty (*cargo*) which should be accepted as one's responsibility to the community. Villagers are hesitant to assume such duties, because of the expense of the accompanying rituals and of providing refreshments for feasts (alcohol and coca leaves). But in return they achieve prestige and become an elder: the number of duties implies a hierarchy of prestige (Bastien, 1978). In communities where the Caja fitted into the ancient ayllu structure, work of representatives to the Caja was seen as a duty. This affected the organization of the Caja positively, but also caused difficulties, as shown below.

The initiative that was to become the Caja began in individual communities.

The planners thought it would be more efficient, although very difficult, to unite the communities in one prepayment system. Nevertheless, such a union of communities 'spontaneously' appeared. This was presumably due to the linkages – invisible to the expatriate planners – within and between federations of ayllus: Aymara communities have always been divided into 'conquerors' and 'vanquished'. This results from wars in ancient times, when relationships had to be established after one ayllu had conquered another. Leadership in ayllus was based on principles of reciprocity and a search for equilibrium in distribution of power. Power had to be distributed equally between conquerors and vanquished, not only within but also among ayllus. Within a federation of ayllus,[2] the conquerors and the vanquished formed two groups that overrode other organizational boundaries, resulting in linkages between ayllus.

Communities sought structures that avoided monopolies on power, at any price. Although not always clearly visible, these ancient mechanisms are still present in the Aymara society, and can still be seen in traditional dances (Platt, 1987); and leadership within an ayllu still generally rotates between conquerors and vanquished. This presented a problem. Because of the importance of a balance of power, it is expected that such a rotation will take place every year; this expectation extended to representation in the Caja and its committees. This implied that either new representatives would have to be trained each year, or that they should receive a salary, paid from the income of the Caja: then the task would no longer be seen as a cargo.

The attempt to achieve equity among independent communities within federations suggests an explanation for the remarkable fact that initially each community was required to make an equal contribution to the Caja, regardless of the number of people in each. Within communities, a search for an equitable distribution of responsibilities was apparent in heavy social control over contributions. The methods were the same as used in many homogeneous cultures: accusing defaulters in public, arousing feelings of shame, holding trials (with binding punishments), and so forth. In the case of the Caja, transgressions often had to do with failing to bring in seed potatoes, being late, or giving seed potatoes of inferior quality. After discussing such failures, the community assembly decided the punishment. This might have been a larger than normal contribution of seed potatoes, or extra field labour (perhaps cleaning up). When a member had not contributed at all, no punishment was necessary. The family would not be able to show a recently signed membership card, and would not receive 'free' health care.

Another traditional arrangement is a special relationship between the *vecinos* (citizens) of a pueblo and the *campesinos* (peasants) of the communities (*comunidades*). Vecinos are tradesmen who are relatively well off; they serve as intermediaries in marketing the local products of the campesinos. Between vecinos and campesinos (but also within these groups) there is often a *padrinaje* (godparent, or protective relationship). This is based on the relationship among godparent, godchild, and godchild's parents; it includes moral, financial and political protection. The godparent is usually someone of a higher socio-economic status than the child's parents, who in return gains prestige and cheap labour, provided by the parents (Albo et al., 1989).

This appears to have made it possible for vecinos to use campesinos in the

construction of health posts in Phase 1; no vecinos participated in the construction, although they perceived the project as their own: they had made the arrangements, and as *padrinos* (godparents) had instructed the campesinos to build the posts; further, the doctor was a native of Tiwanaku. The doctor was himself a padrino for both vecinos and campesinos, having arranged the health care programme for them. This was a problem, since it is difficult for a padrino to charge fees for services. He explained his failure to charge to the NGO by saying that the campesinos could not afford to pay.

The grouping into vecinos and campesinos also led to irritation in the second phase, when the planners put more emphasis on health care in the comunidades than in the pueblo. But real problems started when the Caja began to function as an intermediary in trading potatoes. The Caja (of which only campesinos were members) then became a threat to the vecinos' income. Initially, the planners within the NGO were able to protect the project; three months after they left PST (1989), the vecinos attempted to close it down. But meanwhile the Caja had developed enough institutional strength to overcome the problems.

Aymara culture has always been very persistent; the Aymara are very proud that their culture has survived the oppressive rule of the Incas, Spanish, and mestizos (those of mixed Spanish–Aymara parentage). Aymara political structures were repressed by the Spanish, so that several traditional organizational concepts and structures had to be masked. When Bolivia became independent, almost all national leaders were descendants of the conquerors; the political situation of the Aymara did not change very much. Their culture was seen as inferior, and national political structures were imposed. Nor was there much change in social and power relationships when the 1951 agrarian reform was introduced, though it was meant to liberate the Aymara peasants. People are proud that all of this has not changed their culture (although this is true only to a certain degree). Foreign donations have always been accepted gladly, but with some reluctance due to their cultural pride: it makes them feel dependent. Independence from external financing was an important argument in the development of the Caja. In meetings with the committee and during the assemblies, this was often mentioned as an important motivation for going on with plans. And in discussing food supplies, those who opposed donations almost always asked 'how can a proud culture like the Aymara, who survived the Incas and the Spanish, accept charity from other strangers?'

These examples suggest that the Caja brought out a number of traditional cultural concepts, which often still exist, though in a rudimentary form. The process approach used to organize community participation may have been responsible: people organized the Caja in a way that was feasible for them, within their culture.

Effects of community financing on community participation

Community participation affected the introduction of community financing and, not surprisingly, the converse was also true. As discussed above, in Phase 1 community participation for the campesinos was limited to construction of health posts – and receipt of benefits in the form of 'free' curative services.

health education and training for auxiliary nurses. Nurses were chosen by, and from, the campesinos, but they had no real influence on the decision making process: there was no participation in implementing health care (the auxiliary nurses became representatives more of the NGO than of the community), in planning, in monitoring, or in evaluation of the project. Community participation in decision making was limited to giving feedback to the planners on plans that had already been designed and developed.

This changed very little in the second phase. Benefits increased: quality of services had to improve, so that people would pay for them; women in development (WID) activities and literacy courses were added to the services. However, the campesinos did not necessarily see these as benefits. At this time, participation primarily involved attending project activities (such as health education) which took a lot of time; moreover, it required contributing to the project's costs, by paying fees.

The lack of participation of the campesinos in the decision making process was not because they were not interested, or not allowed to participate, at least in some limited ways. But they did not know how to participate. They felt insecure, thinking they had too little knowledge about health care; there was no platform for community participation. As in Phase 1, they had no power base to act as a partner in the negotiations: often there was a 'take it or leave it' situation. Therefore, regarding the plans of the NGO, they could only give feedback during the needs assessment for the second phase; they left community participation to their presumed representatives, the auxiliary nurses. The nurses, however, were trained, supervised and paid by the NGO; therefore they tended to represent the interests of the NGO, even though they were intended to represent the community.

The creation of the Caja substantially changed the picture with respect to community participation. Changes took place in the benefits received (utilization of services increased, as detailed below), and in the activities (which became intersectoral, as agriculture was involved); but also the community became involved in the planning, implementation, monitoring and evaluation of PST. The Caja presented both a platform for discussion and a power base (due to the funds of the Caja) for negotiation by the campesinos. They were more familiar with cultivating potatoes than with health care; in fact, here they could assume more authority than the planners. As the Caja was autonomous, the campesinos could express their needs in the ways they allocated Caja funds to PST; they could make choices with their money. It was no longer necessary to ask them to participate in decision making for the project – they demanded a voice, since decisions were being made about the use of their money.

The results were clear: for example, before the Caja a frequent demand of patients (regardless of their illness) was the use of intravenous fluids (with minerals and vitamins), and a menthol ointment for cough. These had always been refused by the project, as being non-essential drugs; now they just decided to buy these supplies with Caja funds. After half a year, IV fluids were found to have made an enormous dent in the budget, and the results were not particularly satisfying; a decision was made to withdraw this item. The discussion never came up again – but the menthol ointment is still being purchased. An X-ray apparatus led to a similar story. Before the Caja, in every meeting there was a

demand that the project install the equipment that had been donated by an American hospital. This was always refused by the planners as not cost-effective; also, a study in the area had indicated there was little demand for this service on the Altiplano. When with the funds of the Caja the communities themselves could decide whether to install it, they learned about the cost and decided dental services had a higher priority. They managed to exchange the X-ray equipment with a hospital in the capital for dental equipment and services: there was more demand for dental services, and recurrent costs were lower.

Those who were to represent the communities in the Caja initially hesitated to assume this responsibility. They were afraid they did not have the skills needed for administration and management. Therefore the project organized training courses. They also feared being responsible for large amounts of money – less its temptations than the idea that fellow members would not trust them with so much money. They asked PST to guard the money and check their accounts, to prove to the general Assembly that they had not stolen. PST did this during the initial phase; later the structures of the Caja took over.

Another problem for the health committee was the definition of their work as a 'cargo'. As noted, this meant they had to work without being paid, while it cost them money (e.g. alcohol and coca leaves for those working on the plot); and they had to be replaced with new representatives each year. Thus the Assembly decided that the committee would continue their jobs for more than one year, paid by the Caja. This was an important step; the members of the committee were the vanguard in this move away from tradition; and because they were paid, the Caja could exert more control over them.

The committee played an important role in motivating the villagers. Initially, there was quite a bit of hesitation in the communities. They wondered why it was worth starting a prepayment plan; what others in the community would do – what if they did not join the Caja, or quit after a short time; what if surrounding communities came to use the facilities; what will happen to my input in the Caja if I move to another area, or never get sick; or what if I work to help set up the Caja, and still it fails after a short time. This hesitation was clear for example in the choice of plots and seed potatoes; in some communities both were initially of low quality, presumably to minimize the amount risked. In this phase, having a group like the health committee was of great importance, to take the first steps. After the first year, people gained confidence: more joined the Caja, and the quality of plots and seed potatoes improved.

Some effects on equity (see Chapter 1) should be noted in relation to the Caja. Not only did participation in decision making increase; also the content of the services became more adapted to the needs of participants. They gained access to the administrative and project information of PST. Female health promoters who had worked as PST volunteers became part of every committee of the Caja. (Women had no access to 'duties' in the sindicatos; this participation was instigated by the expatriates. Otherwise there would have been no women in the entire structure. Some women were able to function effectively, but others were not.) Everyone had access to PST health care: if a family did not want to be a member of the Caja, they could gain access by paying direct fees, just as in Phase 2. Those who were unable to contribute could ask a family member to work in the field, or could be exempted from payment by a decision

of the community. The shift in PST policy in Phase 3 was in essence a shift from a situation that was advantageous to the vecinos, who had more money, towards one favouring the poorer people in the community: services could now be paid in labour (which was otherwise poorly paid), not in money – a contribution that was affordable for all villagers.

The Caja also produced some effects that had not been foreseen when the prepayment plan began.

- After the communities united, forming a single system for the whole area, the Caja became an independent intermediary for trading potatoes. Members started to use the commercialization structures of the Caja for their own products: the Caja bought potatoes (only from members!) at harvest time when prices were low (say 4 Bolivianos per unit) at a higher price (say 5 Bolivianos) than offered by the usual intermediaries. These potatoes were stocked, and sold two or three months later when prices had risen substantially (to say 8 Bolivianos). Members thus received higher prices for their own potatoes (25%), and the Caja profited too; even after paying for transport, there was money left to help support the health programme.
- By establishing the Caja, the villagers created a new local independent organization with legal status (that is, its statutes were registered with the government). The representatives to this body, and later also their fellow campesinos in the communities, were trained in managing money and other administrative and organizational skills. As a result, the health programme became more oriented to development: the same skills could be used for other community activities, such as the creation of cooperatives: self-reliance increased.
- There were possibilities for learning by trial and error. For example, in the initial phase of the Caja the Spanish government sent a substantial amount of drugs to the project, because of flooding around Lake Titicaca. The condition was that the villagers would not be charged for the drugs. PST gave the drugs to the Caja, which was allowed to sell them. The money was used to start a revolving fund. In this case there was no real need for cost recovery – these drugs had been donated, and drug supplies in the project were adequate. In fact the revolving fund slowly disappeared, but the experience was important for the leaders of the Caja, in learning about the difficulties of maintaining a revolving fund.
- The Caja had an effect on the consciousness of the campesinos. They demanded a part in decision making, not only in the project, but also with respect to the MOH. They saw this as reasonable, since they paid bonuses to MOH employees (the doctor and auxiliary nurses) and they paid for drugs the MOH could not afford. They no longer begged for a new doctor in the area – they demanded one; they also demanded auxiliary nurses in their health posts. The Caja demanded active participation in other NGO activities in the area, too; even so, other NGOS were interested in the possibility of replicating what was happening here.
- From the start of the project, efforts had been made to set up a registration system. This was expected to provide epidemiological information, to improve the supervision of nurses, and eventually to improve quality of care: a good registration system can show who has dropped out, where the problems are, and what additional activities are needed. However, these efforts had all failed: the peasants resisted being registered. The reasons were never clear, but those

in the NGO thought villagers believed registration would make it easier for the national government to check up on payment of taxes. But after the formation of the Caja, its officials wanted to register all members, to make it easier to check who had made their contributions to the Caja. Thus a registration system was established, to which PST was later able to add epidemiological data.

- Beginning in Phase 1, PST had asked the peasants to check daily for the presence of auxiliary nurses in their health posts. While in meetings villagers often agreed to do this, in practice it never happened. They did not see the auxiliaries as their responsibility; the nurses' salaries were paid by the NGO, not by the community. This remained a problem in Phase 2, but changed with the introduction of the prepayment plan. The people of the community themselves now paid the auxiliary nurses a bonus, to be added to their salaries; they then felt they had a right to make demands.

  Initially, this was seen by the nurses as threatening. However, almost all soon lost their fear, because the advantages of the Caja were important for them. The bonus became an important incentive, but they also found their work more satisfying: their services were better utilized, patients came in for follow-up treatments (earlier, this rarely happened), they received more recognition (attention and remuneration) from the community, and there were now intersectoral activities. Some even decided to play an active and positive role in the organization of the Caja. Further, the increased availability of nurses encouraged increased utilization.

Cost of health services versus community input

The total cost of the PST health care programme and the absolute and relative inputs of the actors involved in the three phases is summarized in Table 2; a detailed breakdown of costs is given in Appendix 2.

All PST costs are included in this table, including expatriates' salaries. However, costs were adjusted to the PST budget, rather than to the needs of the programme; therefore programme costs equal the input. No calculation of average costs has ever been made, so it is not known how much the EPI (Expanded Programme on Immunization) programme, for example, cost. Further, only certain contributions are taken into account; the fees, voluntary labour, and in-kind contributions of beneficiaries are included, but travel and waiting time are not, although these are an important input from the community. Since these were not measured from the start, they could not be taken into account – one of the disadvantages of a retrospective study.

This table allows a general conclusion that recurrent costs – 16.3% (or 10.3%, when the community contribution is included) were not high in comparison to capital costs; Waddington (1988) suggests 25% as a rule of thumb, during the time investments are being made; otherwise, MOH financing is not apt to be able to take over when donor support is withdrawn. Contributions towards capital costs are nearly equally distributed between external financing agencies and the community. This is not the case for recurrent costs; external agencies paid the major part, although their share slowly decreased.

Table 2 **Total financial inputs (capital and recurrent costs, in US$) in Phases 1, 2, and 3**

	Phase 1	Phase 2	Phase 3
CAPITAL COSTS			
External agencies	264,506 (56.9%)	13,850 (100%)	18,061 (46.5%)
Local population	200,000 (43.1%)	–	20,800 (53.5%)
RECURRENT COSTS			
External agencies	261,570 (94.8%)	103,982 (88.3%)	99,170 (65.9%)
Ministry of Health	12,480 (4.6%)	6,130 (5.2%)	31,225 (20.7%)
Local population	1,700 (0.6%)	7,700 (6.5%)	20,160 (13.4%)

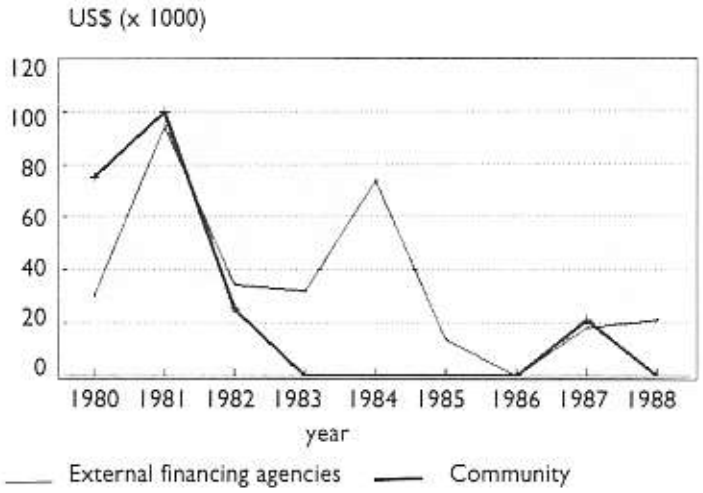
Donors. In Phase 1, donors paid most capital costs (55% – for construction materials for health posts, means of transportation, and medical equipment) and recurrent costs (95% – for transport, salaries and courses for auxiliary nurses). As noted earlier in this chapter, it was their intent to finance initial investments in a project established by the NGO, and to hand the project over to the MOH after four years. This was challenged when USAID withdrew as a donor. IAF was the only external donor in the second and third phases.

Ministry of Health. In Phase 1, only vaccines (which had been donated) were received from the MOH; no drugs or other supplies were given to PST. Further, during the first and second phases, the MOH was not prepared to significantly increase its 4.4–5.3% local contribution, which paid the salaries of the doctor, one nurse and three auxiliaries. The MOH knew donors were paying recurrent costs, and saw no reason to pay salaries of NGO employees. In Phases 2 and 3, the MOH was under great financial pressure due to structural adjustment. No additional salaries were taken over in Phase 2. The MOH contribution increased to 20.7% in the third phase only because of pressure from the Caja. This included salaries for three additional auxiliary nurses already working with the project, plus a dentist and a graduate nurse. It also contributed funds received under the social action provision of the structural adjustment programme, for training courses. These funds were only available for two years; at the time, however, they accounted for 42% of the increase in MOH input.

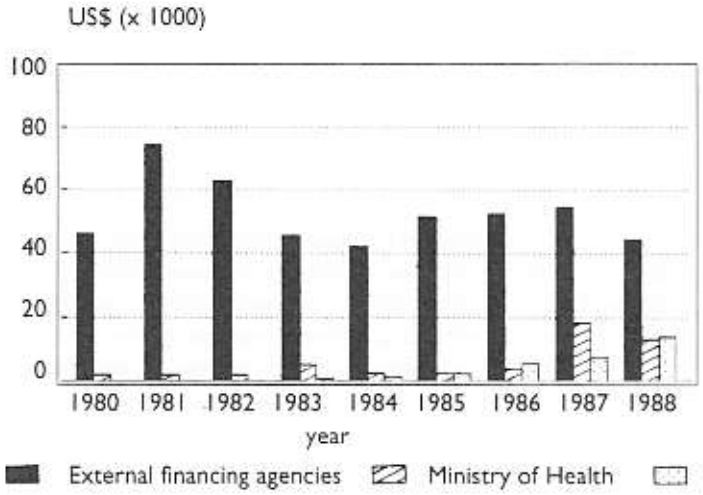
The NGO. Direct financial input from the NGO was zero in each of the three phases; all costs, including NGO overhead, were financed by the donors. But in fact the importance of the NGO to PST cannot be seen in the financial inputs in the table: its contribution lay in the rationalization of costs in the second and third phases. Examples include the substitution of generic essential drugs for the brand-name drugs used in Phase 1; and a switch from three jeeps to one,

Figure 3 **Annual costs of the Tiwanaku health care programme**

3a **Capital costs: input from community and external agencies**



3b **Recurrent costs: input from community, external agencies, and MOH**



with more use of motorcycles. Salaries of the auxiliary nurses were kept at the same low level paid by the MOH. Educational materials were produced within the project, instead of being purchased. As discussed earlier, the NGO worked with the community regarding the cost of operating the donated X-ray equipment, and as a result it was not installed; and the laboratory (also donated) was only used to provide basic (and inexpensive) services. No new expensive equipment (which would lead to high recurrent costs) was either bought or accepted as a donation. Two-way radios were accepted since they used solar energy. Existing resources were optimized: for example, auxiliary nurses and female health promoters became polyfunctional – they provided health promotion and preventive care, in addition to curative activities. Over the three phases, financial

monitoring and planning improved, and the NGO helped to provide cost analyses when equipment or other purchases were necessary. Too, of course, the NGO initiated not only the direct user fees in Phase 2, but also the discussion that led to community financing in Phase 3.

The community. In Phase 1 the community contributed 45% of capital costs, paid in labour (valued in line with local daily wages) and local materials. Villagers did not contribute to recurrent costs; they felt they had a right to free services, both because of the cultural concepts mentioned earlier, and because they knew the NGO received what were to them enormous sums of money, in their name.

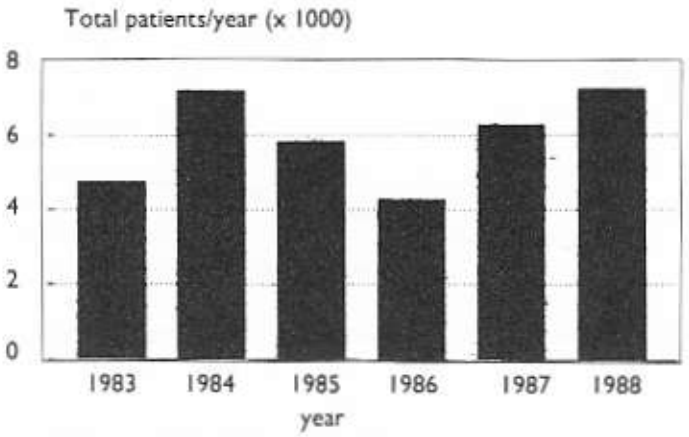
In the second phase, fees were charged at a level similar to those of the MOH in other areas, to ease a future transition of PST from the NGO to the MOH. After adjustment for hyperinflation, direct fees paid only 6.5% of recurrent costs. Although this is not an abnormal result – Stinson (1982) found a mean of 7%, in 51 case studies – it would not have been enough to sustain the project without external financing. In the third phase, the villagers again contributed to capital costs, giving labour, pigs, and potatoes to the Caja. The output of the Caja (plus a small amount from direct fees) paid for 18% of recurrent costs in 1988. Without financial assistance from a donor (thus with no expatriate salaries to pay, and assuming the MOH would pay the other salaries), the Caja contribution would have been 48% of the budget. This would still not be enough to sustain the project, after withdrawal of external aid. But the potential to reach this level existed: only 14 of 68 comunidades participated in the Caja; within these communities, 850 of the 1550 families (55%) participated. The Caja was still in an initial phase, but had enormous financial potential.

Community financing and service utilization

PST has had three external evaluations, initiated by USAID between Phases 1 and 2 (Favin, 1985); and by IAF, both between Phases 2 and 3 (Vargas, 1986) and during Phase 3 (Vargas, 1989). The results of these evaluations will be used here to assess the effect of introducing community financing on utilization of both curative and preventive services by the beneficiaries (demand). Data on utilization of curative health services will be used as tracer indicators. Although PST started in 1980, the period 1983–1988 will be studied more closely, because services began in 1983; earlier activities were focused on construction. Figure 4 shows trends in health post utilization rates (all PST health posts are included). In Phase 1 (free of charge, 1980–1984) utilization rates increase, only to decline in Phase 2 (user fees, 1985–1986); but in Phase 3 (community financing, 1987–1988), these rates return to the initial higher level.

The trend in Phase 1 suggests that utilization will keep increasing in Phases 2 and 3. In Phase 2, however, the upward trend is clearly disrupted. For Phase 3 it is more difficult to draw a conclusion. With no Phase 2, would Phase 3 rates have been higher – or would rates have stabilized in any case? The increasing trend in Phase 3 suggests the rate would have continued to increase.[3] One trend that is not mentioned in the evaluations is a shift that took place in health-seeking behaviour. In the direct fee phase, more patients went to the village of Tiwanaku for care (where a doctor was in attendance, which was probably

Figure 4 **Utilization rates at health posts, 1980–1988**



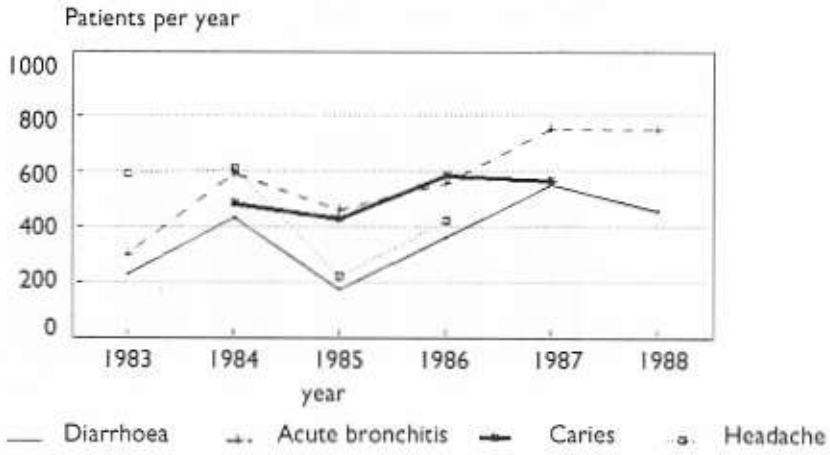
perceived as allowing higher quality care). However, in Phase 3, more patients went to health posts in the communities and fewer to Tiwanaku. Further study would be needed to explain this, but one possible hypothesis is that because of the Caja, people became more involved with health care in their community. This was said by the Caja health committee and Caja members during Assemblies, but clearly both are biased observers.

One obvious conclusion regarding decreased use of curative services in Phase 2 is that many campesinos in the Tiwanaku area could not afford the direct fees, or were not willing to pay for the available quality of services. Both arguments were heard in almost all community meetings (the former more frequently). In these meetings, peasants were often angry with the project: it received funds for salaries and also free drugs intended for poor peasants. Villagers felt that by charging, the project was stealing what in fact belonged to them. On the other hand, many economists would expect that in Phase 2 people would use services in a more efficient way, decreasing their usage for 'frivolous' diseases (like headache), while continuing to come in for 'more important' diseases. Figure 5 gives morbidity data for selected illnesses, based not on prevalence, but on the reasons given for seeking help at a health post.

The morbidity data shown were chosen in part because they were available from the external evaluations; but also because diarrhoea and acute respiratory infections are the main causes of infant mortality in the highlands of Bolivia, while dental caries and headache are seen by professionals as 'frivolous' diseases, without public health significance. In these data, decreases in demand during Phase 2 for diarrhoea and headache are more dramatic than for respiratory infections, which in turn decreased more than for caries. If the campesinos had used health services more 'efficiently' (as defined earlier), one would expect the rates of diarrhoea and acute respiratory infections to decrease relative to those for headache and toothache. This is true for headache (which indeed increases), while the opposite is true for the other three.

These data do seem to reflect elasticity of demand among the beneficiaries: when money is charged, people may not seek treatment for diarrhoea, respiratory infections and headache: these diseases may pass eventually without treatment. But toothaches, which hurt constantly (and which everyone knows will

Figure 5 **Morbidity (selected illnesses) as recorded at health posts, 1980–1988**



not stop without treatment), are important. Following the 'taste' of the providers of health services (which they see as the 'objective' public health needs) will sometimes produce results that are the opposite of their intention.

Overall utilization rates in Phases 1 and 3 are comparable (Figure 4), as is health-seeking behaviour by type of illness (Figure 5). This is probably because relative prices have no importance in either phase: at the moment of utilization, no payment is made. Rates of diarrhoea did increase in 1986. This would seem to contradict previous conclusions. In 1986, however, oral rehydration salts became available (free of charge); health promotion on diarrhoea had begun in 1985.

As discussed in Chapter 1, the macroeconomic situation, including structural adjustment (which started in a very dramatic way in September 1985), limits the conclusions that can be drawn from these utilization figures. However, the macroeconomic difficulties continued across the three project phases. Too, hyperinflation affected the campesinos less than others, as the value of their products rose with inflation: their income increased a bit, and they did not typically buy most of the commodities that became more expensive because of the structural adjustment programme. Thus hyperinflation and readjustment are not very likely to explain the observed changes in utilization.

Vaccination coverage is another area in which data are available. In Phase 1, according to Favin's evaluation (1984), too little emphasis was put on promotion of preventive health services. For example, villagers were offered too few opportunities to have their children vaccinated, because geographical accessibility was difficult. In 1986, however, Vargas mentions that promotional activities were 'very promising' (both in the community and on the radio). In 1989 he finds them at a high standard: water and sanitation conditions, as well as utilization for prenatal checks and clinics for under fives, were better than in the rest of the highlands. These activities, however, were carried out by other institutions in addition to PST, so they will not be a focus here. Instead, vaccinations – almost entirely the task of PST in this area – will be used as an

Table 3 **Vaccination coverage (children under 3 years), 1984–1989**

	1984	1986	1989
One dose or more	17%	38%	81%
Three doses			
polio		8.8%	16.5%
triple		8.3%	16.3%
measles		9.7%	21.7%
BCG		11.6%	20.2%

Sources: Favin (1985); Vargas (1986 and 1989)

indicator in tracing the development of preventive services over the three phases. Data on vaccination coverage are given in Table 3.

As this table shows, vaccine coverage improved over all three phases, more slowly in Phase 2, and fastest in Phase 3. The explanation may lie in the improved promotion by both employees and volunteers in Phases 2 and 3; or it may be due to the increasing participation of the community in the third phase. This has not been assessed quantitatively, but, as Vargas (1989) mentions, the Caja played an important role. Members forced other members to have their children vaccinated, saying 'if your child gets sick, it will cost us all (that is, the Caja) money'. Social control as a result of financial involvement, and the recognition of risk sharing within the community, probably resulted in increased vaccination coverage.

This involvement had still more implications for the health services. In the past, some peasants had complained about quality of services. When community financing was introduced in Phase 2, project planners and health care workers felt they had to improve the quality of their services. More emphasis was put on training, supervision, backstopping and on-the-job training. Much attention was paid to the health information system: morbidity, diagnosis and treatment, promotional activities, and planning the activities for the next month. In his evaluations, Vargas mentions that the people indeed perceived an increase in the quality of services.

Notes

1. Another example of risk sharing among farmers is seen in the exchange of plots. A farmer's field, rather than being perceived as a whole, is seen as made up of smaller plots; some of these are 'exchanged' with others. Then if a field is damaged by a hailstorm (which on the Altiplano are extremely local), harvest losses are spread over several farmers.
2. Ayllus are organized into larger organizational structures, generally five ayllus per federation.
3. The differences between rates in the three phases are highly significant, but there are too few data to draw firm conclusions (not all data can be differentiated per month or per health post).

A VHW (promotor feminina) who has been trained by the project preparing to give a vaccination

3 Discussion

Projects that require investments – whether in health care, education, roads, or other infrastructure – are often implemented without sufficient attention to financing later operations and maintenance (recurrent costs). When such costs become a burden, service providers often begin to think about cost recovery. In some cases, governments or other providers have also attempted to recover a part of their initial investment.

The introduction of a fee, particularly as an afterthought (charges for services that were previously 'free') also introduces major changes in the relationship between providers and beneficiaries. 'Friend' may now be seen as 'foe', and those who must pay are far more apt to demand value for their money. This may create major difficulties, since it implies that a supply-oriented government, semi-government, or project apparatus must learn to act like a demand-oriented service organization.

An additional problem lies in the need to design a fee that does not discriminate against the less privileged or favour the rich: the fee should work in favour of the objectives of the initial investment. Here too, government agencies are at a disadvantage, since they are often poor judges of the socioeconomic, sociocultural and political context.

Many of these problems were evident in the second phase of the Tiwanaku project; however, the community participation of the third phase appears to have offered a resolution. This suggests it would be more productive to discuss cost recovery not from the standpoint of the provider, but of the user. Here, based on the experiences presented in Chapter 2, we will explore ten important issues, from the user's perspective. These are all factors that must be taken into account in considering the initiation of community financing in health services, or in evaluating an existing service.

What leads a community to participate in community financing?

An essential, if often neglected, set of questions revolves around community participation in financing. The response seen in the various phases of the Tiwanaku project suggests that people were in general willing to pay for health services, under certain conditions. First, there was the question of affordability, plus that of 'how much health they would get for their money': price versus quality and accessibility of services (elasticity of demand). The campesinos appreciate the value of 'health', and health education (an essential part of the programme) underlined its importance, further stimulating a willingness to pay.

Several other conditions, initially seen as 'side effects' by the planners of the health programme, were priorities for the community. These included power to make decisions about the distribution of resources, a desire to be independent (not requiring outside aid), improvement of the socioeconomic situation, and active community participation. Moreover, it was easier to pay a part of capital costs than to pay recurrent costs, to pay in kind rather than in currency, and to

pay indirect fees rather than direct fees; this facilitated participation in community financing.

In the end, individuals and individual communities had to weigh their expectations regarding the positive and negative results of participation. In addition to the other factors mentioned, the way community financing was organized was essential: there were assurances that no one person paid more than others, and supervision of money and services was certain, visible and understandable according to local cultural concepts.

These elements can be further explored by considering them in the light of concepts from health economics (elasticity of demand) and other social sciences (the prisoner's dilemma).

Demand for services

Health services are often seen as commodities within a market economy: people are free to buy the commodities of their choice, within the limitations of the money available. In this sense, the evolution of community financing within the Tiwanaku project is a tangible demonstration of the elasticity of demand for services: 'the quantity of services demanded is a function of its price and relative price, and of the income and taste of the consumer' (Mills, 1988). The *real price* of services is related to their affordability for consumers. The case study demonstrates that although willingness to pay (either direct or indirect fees) was present, demand decreased because consumers could not afford to pay. Their cash income was low, and this, in addition to cultural factors (discussed further below) meant they were better able to pay in labour than in cash. Demand is also related to the *relative price* of commodities: what other goods could be bought with the money charged for health services. This is an important issue, since more and more user fees are being imposed (for education, drinking water and so forth), and at the same time the prices of other commodities are rising, due to structural adjustments to national economies. The choice how to spend one's income is becoming increasingly more complex. This became evident when the Tiwanaku project introduced fees for services that had always been free of charge: utilization rates decreased. (During the case study, it was not possible to control for changes in the amount spent on other basic needs.)

The case study once again confirms the idea that service quality should be improved before implementing a system based on user fees: why would a community pay for poor quality services? In the Tiwanaku project, the planners did improve quality – as they defined it – even before the community had made this demand. The community, on the other hand, still expected changes when they began to pay. While some of these could be seen by both groups as contributing to better quality – such as dental services and essential (imported) drugs, others were seen by the planners as frivolous, but were introduced to please consumers (IV fluids and menthol salves). When community financing was introduced, quality came to mean quality as perceived by the consumer. Their perceptions of quality were affected by local preferences: the 'taste' of the campesinos, as determined by culture, by what they had seen in the city, by what was perceived as determining status, and by concepts of health and disease.

While quality of services is often seen by health economists as the single

most important factor affecting consumers' taste, and therefore their willingness to pay, in the case study the situation was not this simple. Among local conditions that appeared to influence taste were:

- the preference of the campesinos for certain methods of payment. Paying capital costs, rather than recurrent costs, was preferred; these are easier to calculate and limited in time, and part of their contribution could be in labour and local materials. Also, prepayment was preferred to direct fees (see the following section). Contributions were lower, and could be paid while healthy and when money was available.
- the process followed in developing community financing. The community developed the potato scheme, and could therefore adapt the system to its own pace and its own situation. This had a positive influence on willingness to pay.
- campesinos derived personal benefits: members could sell their products for a better price by using the trading structure of the Caja. This improved their economic situation. Some also learned new administrative and organizational skills.
- the community felt empowered, as a result of the introduction of indirect fees.

The campesinos' expectation that they would have more say – money means power over decision making, resource allocation, and so forth – increased their willingness to pay. They now felt they could demand that auxiliary nurses stay at the health post, and they could negotiate with the MOH, the planners and the NGO. This does not mean they did not have these rights earlier, but with their organization contributing to costs, they felt they could make demands. Whereas earlier they felt 'beggars can't be choosers', now they no longer saw themselves as beggars. While the relative importance of this factor would be difficult to assess, it appeared to be quite important to willingness to pay. This is equally true for the related factor of 'cultural pride', or human dignity. While receiving free services, from donors for example, may appear easy, the feeling of being a beggar, of being dependent, is humiliating for many. The Tiwanaku project planners called on these desires for self-determination many times during meetings; they were an important factor in the community's willingness to participate.

Weighing expected results

In the community, individuals and groups must consider results they can expect from participation in community financing, and come to a decision about whether it will be beneficial or not for them. Positive decisions of individuals are often based on considerations regarding what the community will expect of them under a new plan: if I don't participate, will health services continue? What will the community say if they see that I cannot afford to pay? Or even: will it increase my prestige, if they see I can afford to pay more for health care? Will it help me to show that I am really a member of the community? Or perhaps might I benefit from the services here or in other communities, without paying?

Negative decisions of individuals are often due to questions along these lines: if someone in the community does not pay, will (s)he still have the same benefits as I do (and if so, why should I pay)? And could people in other communities benefit from the services we have paid for? Or, as one person in the Tiwanaku area said, 'if I don't get sick, I will have paid for nothing – only for

the sake of others'. Such deliberations have been called 'the game of the prisoners' or the prisoner's dilemma (Olsen, 1965): how can 'I' gain benefits without contributing more than 'they' do, or perhaps even make a profit without paying? When communities and individuals must weigh up these arguments, they may or may not decide to participate in community financing;[1] negative decisions made on this basis will often be the most difficult to overcome. The prisoner's dilemma explains why, at least initially, community financing should be a small-scale, local initiative. Large-scale, national programmes are doomed to fail: people fear that funds will be used at central level instead of being used where they were collected. It appears that initially, communities are only prepared to pay at local level: there they can observe the allocation of funds and administration, and any benefits will be evident.

Indirect, less visible benefits are related to what economists call 'externalities'. Such factors are difficult (for either individuals or governments) to take into account in making decisions, even though they can heavily impact health. For example, national issues regarding foreign currency, external debt, or structural adjustment are too abstract for most beneficiaries, and scarcely come up in arguments about whether to participate in community financing. Other factors that have an indirect effect on the health of the individual are more local. Some may perceive them, and be influenced in their decisions about participation, but most often they are not seen as risks that individuals are willing to pay to avoid. The need to continue taking (and therefore paying for) medications for tuberculosis, even after symptoms disappear, to avoid spreading the disease to others, is one example. Vaccination programmes to avoid epidemics, measures to combat endemic diseases, are others. Other indirect effects include the possibility that a good system of health services, assured by community financing, may encourage younger people to stay in the area, instead of leaving for the city. Or the reverse could also occur: as the young migrate, traditional systems of social security become more uncertain, making a sustainable system of health services even more necessary. These last two points were both important for the Caja.

This case study suggests that communities are prepared to participate in community financing, given certain conditions, of which affordability is neither the only, nor even the most important. Instead, questions such as the extent to which services are adapted to the user's 'taste' (including quality); the opportunities for active participation in decision making; the way community financing is organized; the advantages over the present situation; the availability of a solution to the prisoner's dilemma; whether the initiative is locally based; and whether community financing is based on direct or indirect fees. Moreover, prepayment can help to broaden the definition of the 'benefits' of health care – moving beyond the individual and the family, to a focus on the community as a whole.

In theory, there are more arguments in favour of prepayment than there are for direct fees.

- Prepayment means risk sharing: it is a more equitable system of community financing:
  - when ill, patients are not able to work; this makes it difficult to acquire money to pay direct fees for health care; healthy people are in a better position – they can pre-pay more easily;
  - nearby, accessible health services are a desirable commodity for both the ill and the well; with direct fees, only the ill pay for these services, while with prepayment, all pay;
  - prepayment has more possibilities for differentiating fees in accord with income than do direct fees;
  - in an agricultural subsistence economy, prepayment offers better opportunities for handling seasonality (seasonal variations in availability of funds) than direct fees: prepayment may be charged at harvest time.
- Prepayment creates greater purchasing potential than direct fees. With direct fees, only those who are ill make payments. Prepayment means that many more people contribute, so that each individual pays less. For the Tiwanaku project, for example, prepayment produced three times as much income as had direct fees.
- It is never certain who, when, or how diseases will strike, what dangers they will present for the community, or if remedies will be effective. A prepayment system, however, can provide assurance in the form of payment of unpredictable and excessively high health care costs.
- Externalities, in this case the possible effects of one person's disease on the community (e.g. if it is contagious), call for a united approach. Epidemics, for example, make clear that disease is not simply an individual problem. For this reason, financial risks should be shared: prepayment is more appropriate for financing solutions to problems the individual regards as externalities than a direct fee system would be. Direct fees are more suited to treating the disease of a single individual, whose interest in payment is greatest during illness; prevention of disease is less interesting. Prepayment makes prevention – not only for oneself, but for others as well – interesting to the community. Also, it is easier to support the use of prepayment system funds for vaccinations, water and sanitation, health education and training than it would be with direct fees. As members of the Caja said, 'if *you* will not have your child vaccinated, it will cost *us* money'.

Nevertheless, when community financing has been implemented in developing countries, it has usually involved the creation of a system of direct fees. Why has prepayment been so little used? A primary reason is that the issue of community financing has most often been raised by those who see health services above all as a commodity; and payment for commodities can best be demanded at the moment the buyer needs them. In this light direct fees, paid when one is ill, make sense. In some important ways, however, health services fail to match the usual definition of a commodity. The externalities mentioned above, such as those involved in the cost–benefit calculations of the patient who has been treated for tuberculosis for one month (who has no more

symptoms, but may still infect others), are examples. A more complete cure will help to protect others, but the individual may not want to pay to support their interests. Another distinction from commodities lies in the 'supplier induced demand' (Mills, 1988) that is characteristic of health services. If a doctor explains that a patient will die if (s)he does not take a certain drug, the person will pay a high price to obtain the drug: at such times, health care is life-saving and therefore 'priceless'. Thus health care does not really match the definition of a commodity.

A second reason for the use of direct fee systems is that they *appear* (in the short term, and particularly for national systems) less difficult to create than prepayment systems. Direct fees do not require seeking the approval and/or commitment of the community. Only health care providers need to be involved; the individual can take or leave the 'commodity' of health care. Community members' involvement is limited to payment at the time of illness. Further, direct fee systems appear (on the surface) to be less complex to manage; administration and control mechanisms are clearer, and there are only a few levels of management: when something goes wrong, the problem is easier to trace. Prepayment seems more complex to initiate and put into practice.

Is this true? The case study makes clear that the evolution of an effective system of prepayment requires certain preconditions. Social organization is an essential requirement: people must be able to work together. This means people must see that they have similar interests: the shared risks are there (anyone may get sick, anyone may pass on a contagious disease), but are not always recognized. Joint action becomes possible only when what de Swaan (1989) has called the 'dilemmas of social action' (which include the prisoner's dilemma) have been dealt with. These all come down to questions of how the other (community or individual) will react if one does or does not take part in a given social action; and what possibilities there are for these others to withhold payment, or to abuse the services that result from social action and for which 'we paid the bill'. Both problems relate to trust (or mistrust) between individuals.

Several such dilemmas of social action, plus some apparent solutions, can be observed in the case study, and will be summarized here.

- What if some refuse to pay? If some refuse, others will soon follow. For the Caja, the solution was a mixed system, including both direct fees and prepayment: if someone had not paid, or paid late, s(he) had to pay a direct fee. Non-payment extending over more than one agricultural cycle required a new payment of the initial contribution.
- How can a system avoid excluding people from health services if they refuse to participate in prepayment? The mixed system described under point one was originally established to solve this dilemma, and served to address the other problem as well.
- How can a prepayment system be set up where there is no awareness of the cost of health care services, and perhaps not even of their value – as when services had always been free of charge? In the case study, the introduction of direct fees in Phase 2 may have been essential to the later acceptance of prepayment. This was not done on purpose, but it did make people aware of the cost of health care. Risk sharing could then be seen as a way to protect people from costs. Further, the health education provided by the project has probably

increased community awareness of externalities like epidemics.

- How can a village organization be established around a 'new' concept like prepayment? It is generally assumed that villagers will not accept the idea of putting one's trust in the possibility of receiving benefits in the future, based on transfer payments made earlier. However, in this case, a prepayment concept – though rudimentary and hardly recognizable to outsiders – was already present in the ancient culture of the project area. In fact, most cultures have survival strategies with respect to potential hazards or disasters, often based on some kind of prepayment. Further, the organization of the system was based on an understandable concept (agriculture), an affordable means of payment (in kind), and a transparent system of control and administration. Most importantly, however, the system was not imposed on the community from outside; instead, the community was involved throughout, and the use of the prepayment concept grew out of their experience.
- People wonder about the money that will be collected: will it really be spent on us, for our health services, the ones we want? Prepayment in the Caja was in the hands of an autonomous community organization, with all decision making on resource allocation in the hands of users' representatives. Community payment of the costs guaranteed that its influence would be decisive.
- 'What if I don't get sick?' Would this mean I receive no benefits for my contribution? First, prepayment covered all family members (including grandmother, if she lived with the family); this minimized the risk of paying 'money for nothing'. Second, as noted, there were some additional benefits, including new skills, an improved socioeconomic situation, and possible effects of empowerment, based on the community's expectation that payments give a right to power over decision making.
- 'If only our village participates, others could benefit without paying.' This could even lead to regional instability. In the Caja, however, prepayment was a collective action, arranged among several communities. To allow this requires a solution to the following dilemma.
- How can mistrust among communities be overcome? In the case study, health care in the several communities initially started separately, due to mistrust. They got together for a variety of reasons, primarily because they saw the advantages of risk sharing, and because of local cultural factors; however, the guarantees provided by the presence of the NGO were also a factor. Later, one of the functions of the Tiwanaku project planners was to help avoid problems among communities, by watching over bookkeeping and other administrative tasks.
- How can community concerns about their ability to maintain a complicated financing system like prepayment be allayed? The availability of technical support from the external planners supplied by the NGO helped people feel more secure.

In overcoming these sorts of dilemmas, ideally the state should play a role: it can provide a reserve of funds to overcome financial risks; has the infrastructure and hopefully the skills for the management of a prepayment plan; and could, if necessary, enforce sanctions on those who refuse to join in social actions. Finally, it could (as discussed in the following section) participate financially in prepayment, paying a part of the cost of making such a system

more attractive. In many low income countries, however, the central government is not in a position, and often not willing, to take on this role. Funds are often already overcommitted, and as yet they do not have either the required managerial skills, or a reliable system of enforcement. Particularly in remote areas like Tiwanaku, people are often not accustomed to having the money collected from them by the national government spent at local level, and/or do not trust the government to do this: they have no control over the way this money is spent. Finally, the idea of a central government that collects money (transfer payments) and gives it back in an emergency is an abstraction seldom understood (or trusted) by the people. While it does not seem feasible to start from the national level, it is possible that, as discussed below, local-level initiatives may eventually come together to provide larger scale systems or national programmes, as occurred in Europe and the United States in the last century.

The case presented here, and the problems related to government involvement, suggest that while locally based prepayment is not easy to implement, the difficulties can be overcome. This does however require certain preconditions; among these the involvement of the community is particularly important. Prepayment is to be preferred to direct fees because it is more equitable, can have a greater impact on social action, has greater economic potential, and is more sustainable in the long term. Prepayment should be preceded by an interim period of direct fees; it should begin with local initiatives (and therefore local control and local benefits) at district level or even lower. Technical support from a development-oriented organization is apt to be needed.

The lessons of past experiences with prepayment

Although the prepayment strategy is fairly new and uncommon in low income countries, over the past 150 years or so, Europe and the United States have tried out various prepayment models. However, it took over 50 years of trial and error to arrive at the current health insurance systems. Perhaps other countries could benefit from these experiences, and avoid some of the errors that have been made. Some of the lessons to be learned may apply in situations like the case study – the Tiwanaku project was situated within a village-level subsistence economy, a society of independent one-family enterprises, as seen in many rural areas of the world. Urban areas are often more favourable to the creation of a local prepayment plan. People live closer together, and work together in factories. The idea that they share a common lot in life is easy to sustain, and this plus the receipt of fixed salaries (which make it easier to apply a system of regular payroll deductions) create favourable preconditions for the implementation of a prepayment system.

In Europe, such factors led to the development of prepayment in urban areas (de Swaan, 1988). Prepayment plans started around 1850 with limited local initiatives. People in similar situations (the same social class, workplace, etc.) became aware of their common interests. They set up mutual aid societies for workers, designed among other things to share financial risks related to health care, such as the Friendly Societies in the United Kingdom and the *Mutuelles* in France. The Caja shows an interesting similarity to some European societies:

the first mutual aid group in the Netherlands (The Hague) was based on a cooperative that traded in potatoes (Heydelberg, personal communication).

These European societies existed for only 50 to 100 years (beginning in the period 1850 to 1900, and lasting until 1940). De Swaan (1988) mentions several reasons for their disappearance. They were often too small to adequately share risks; there was no way to enforce payments; they had too few organizational and administrative skills; there was no clear idea of what the level of contributions should be; and they tried to exclude high-risk members. In Europe, the state helped to overcome these problems. It unified smaller societies and created bigger ones; the state could force people to participate and to pay – in other words, it helped to overcome the dilemmas related to prepayment. In Europe, after beginning at district or regional levels, central governments began to create national health insurance plans, based on local ones. The state, as an employer in the public sector, could organize prepayment systems by holding back a proportion of employee salaries.

Some larger employers did the same. Sometimes this was encouraged by the state, but more often such health insurance began on a voluntary basis: it was a way to create good fringe benefits and thus attract good employees; to insure the enterprise against accidents; to increase the likelihood that the employee would remain with the organization; and also to obtain capital (the prepayment contributions!) to invest in the enterprise. Thus both state and employer clearly benefited from a prepayment plan.

There were three ways for a national government to achieve a national health insurance system. Some governments invited voluntary participation from employers, as Bismarck did in Germany beginning in 1883. The state then forced workers by law to pay their share. Other states got together with worker groups (trade unions, etc.) and later made laws to force employers to pay a share, and to organize payroll deductions, as did Lloyd George in the United Kingdom, beginning in 1908. Finally, a government could attempt tripartite agreements among government, progressive employers and non-extremist employees, as Roosevelt did in the USA and as successive governments did in the Netherlands beginning in 1930.

Considering this history of prepayment in Europe, can initiatives like the Caja have a future, given the lack of strong state institutions? This does not seem impossible. Many of the problems mentioned in this section do not apply to the Caja, or have been overcome. Just as in Europe and the United States, prepayment plans in LICs will have to start as local initiatives – like the Caja. There are many development organizations, and even local governmental organizations, in LICs that may be able to help mutual aid societies to overcome the organizational problems seen earlier in Europe. Someday the state may, as in Europe and the United States, unite such groups to arrive at regional and, later, at national health insurance systems.

This will, however, be difficult. Unlike Europe during the last century, few countries have a growing economic surplus that can be invested in social security. There are few activist governments (as were Bismarck in Germany, Lloyd George in the UK, or Roosevelt in the USA) that want to negotiate with trade unions or progressive employers to establish a social security system. Now that a sort of 'wave' of democratization has rolled across Africa and Asia,

things could change. However, at present, in many of these countries, the poor have little confidence in their governments. Further, most governments in low income countries do not yet see the poor as important consumers or voters, as has been true in Europe.

If these governments were to start a health services prepayment plan, it would almost certainly benefit middle- and upper-class workers with salaries, not the informal sector and subsistence farmers. It is difficult for governments to establish prepayment plans for these groups, who will therefore (and for reasons of political priorities) be the last to benefit. But these groups are in the majority, and they are certainly the high-risk groups with respect to public health. Therefore low income countries need small, local initiatives like the Caja, which – with some support from a development organization, or, where possible, from a local government organization – can start their own prepayment plans.

How do local cultural concepts affect the organization of community financing?

While much can be learned from past experiences with prepayment, there is every reason for community financing plans in LICs to avoid copying those systems. In spite of the efforts during the last decade to invite or to force many of these countries to join the market economy of the 'new world order', Western models for cost recovery and community financing do not provide a blueprint that can be applied without adaptation in the developing world. As elsewhere, in low income countries economic concepts related to trade, modes of payment, credit and time (time is not generally seen as money!) are rooted in local culture and habits. In non-Western subsistence and informal sector economies, such concepts may even differ from community to community. Local variants may influence the introduction of community financing either positively or negatively.

Among the characteristics of cultural factors is that they are often hidden: for outsiders, they are hard to recognize and hard to understand. Each culture may have its own hidden but relevant factors, which must be sought out. A number of such concepts are evident in the case study: for example, money had a sacred value, which meant that locally it was worth more than the nominal value. Also, cultural factors were the reason contributions had to be the same for each village, and could not vary with number of families or population. There were also traditions regarding payments: services were compensated with services, and goods were paid for in kind. Thus, as noted, villagers resisted paying for health services, since they felt that these services were their due, in return for work they had done in constructing health posts.

The finding that villagers in a subsistence economy prefer to pay in kind and not in currency is not limited to the Bolivian Altiplano. Many doctors tell of patients who refuse to pay in currency, but want to pay far more than the expected fee in kind. This may be because villagers and farmers tend to value their labour and products lower than the market value in currency. Also, however, trade in these countries is mostly in kind; money savings are a last resort, which people feel should be used as little as possible. In many LICs, payment in kind has gained further popularity in recent years, to safeguard savings and income from inflation. Payment in kind for 'modern' health

services, though, is not common; most often providers do not want to, or do not know how to, use the products afterwards, for example by trading them on the market. A community organization like the Caja, which can trade in these products, may offer a solution.

Payment in currency, however, may be problematic with respect to the person who collects the money. In many societies, someone who holds a certain amount of money (like the community representatives in the Caja) will be obliged by family members and friends to give credit or to lend them money. It is never certain whether these loans will be paid back, or how (that is, repayment is often in services). This can put community financing funds in danger. In Bolivia the solution included putting the money in a bank, having an 'accountant's declaration' provided by the NGO, and administrative checks between communities.

In the Bolivian highlands (as elsewhere), the patient's expectations of the implicit contract between provider and patient, and willingness to pay for health services, will always be coloured by past experiences with traditional healers and the way they charge. In the highlands, a *yatiri* (traditional healer) 'reads coca': by interpreting the meaning of falling coca leaves, a diagnosis is given and, based on this, a treatment. The patient puts down money or other items of value for the coca leaves to fall upon. Minimum and maximum payments are not stated, but the more valuables put down, the more certain the diagnosis. The yatiri keeps the money, but often the rest of the payment is made only after the cure has taken effect (no cure, no pay), and it is usually in kind. Thus money may be used during diagnosis, but in small amounts and in a symbolic way. The in-kind payment for treatment is much more significant in financial terms. It is interesting to note that while health-seeking behaviour has often been discussed in the literature, little attention has been paid to the fact that the cultural setting influences payment behaviour as well.

The value of health and health services also differs between and within communities, which requires a differentiated approach to setting fees. In the Altiplano, 'traditional' health care is still more highly valued in rural communities than 'modern' care. This had consequences for the amount people were willing to pay when direct fees were charged. On the other hand, for higher socioeconomic classes (even in rural areas) modern health care has an intrinsic value as a sort of 'status symbol'. The 'best' treatment is desired, which can only come from the city, and in the city it has to be imported from rich countries. People even travel to Europe or the United States for an operation that easily could have been done at home. Similar mechanisms are seen among the poor: they assume treatment provided for them will be lower quality, because it is 'only for the poor'. These expectations affect essential drugs programmes, for example. The drugs are cheaper, the package less fancy, so the quality is assumed to be lower than that of a brand-name product.[2]

The case study makes clear that the effect of local culture on prepayment systems may also be positive. The ancient concept of prepayment that existed in the Aymara culture became the basis for the Caja. It seems likely that every culture includes similar traditional concepts. Often there is a strategy for disaster preparedness, such as risk sharing; this might include saving goods,

products, or food for times of misfortune. Or there may be a specific means of paying recurrent costs in the community, such as religious feasts, or receiving visiting authorities in the community. Also there may be organizations or payments for mutual support – funerals, building houses, and so forth. That the Caja is not an isolated example is demonstrated by the following examples from Africa and Asia.

In Guinea-Bissau (Chabot, 1990), a communal prepayment system has existed for centuries: the *Abota* system of prepayments for religious feasts and funerals. More recently, this has become the basis for a kind of credit system. A group of community members contribute money at regular intervals; participants take turns in using the communal fund. The central government too has used the Abota system as a basis for the creation of a prepayment system for health services. The community collects money for health services just as it does for the Abota. Prepayment is made for drugs for basic health care at village level (*Unidad Sanitaria de Base*), provided by a volunteer who is a member of the community. Contributions are collected by an autonomous community organization; at district level this is done by health care professionals. There is no coordination between communities to unify Abotas at district level, as for the Caja; here it is the health care system that provides unity.

The Guinea-Bissau experience also shows that when the concept of prepayment is present in the culture of a subsistence economy, it may provide the basis for a national system of prepayment (see the section below on the role of the community). And, while the authors conclude that the Abota experience is not replicable outside Guinea-Bissau, we would like to disagree. Other countries have comparable prepayment concepts, on which it may be possible to build community-based health care. In China, for example, the Communist Party began a prepayment system for the rural population. It made use of the income of agricultural cooperatives, and was based on a concept that had been in use for centuries in Chinese communities. (In urban areas, the Party instituted a fixed deduction from members' salaries.)

In summary, an often neglected lesson reinforced by the case study is that the many concepts, customs and expectations of a culture may influence the success of a community financing system to an important (and not always clearly visible) degree. The structures that exist within and between communities are an important determinant of the organization of a community financing system. Often a Western-style model will not work. Cultural factors may either obstruct or facilitate community financing; therefore they should be studied before creating such a system. This may suggest strategies to avoid, as well as elements of local culture that will help to make community financing effective. (As discussed below under the role of the community, in the case study, this included the use of in-kind payments, the application of local prepayment concepts and the use of local organization forms.)

Organizing community participation in prepayment

There are substantial differences between creating a direct fee system and establishing a system based on prepayment. A prepayment plan, as noted, is

much more dependent on social action, and therefore on social organization. Health services linked to direct fees rely much more on market mechanisms. How community financing is organized will be above all an economic and technical matter; decision making will be in the hands of those who supply the services. If the legal situation allows it, health service providers may introduce direct fees at any time, and can be expected to set tariffs based on an analysis of costs and demand for services. (The level of fees will be set where these two factors intersect.) Too, providers can be expected to decide how the fees collected will be used. The organization of a direct fee system becomes more complex when political factors and/or beneficiaries demand that providers take externalities into account in decisions about services and prices. Or providers themselves may ask the community to participate, whether for political reasons, or because of a desire to reduce costs by moving towards a community financing system, or due to a desire for the community to express its needs regarding health services. Providers will then encounter the difficulties of community participation, similar to those in prepayment systems.

The discussion of the creation of prepayment systems in Europe and the US suggests that at present many countries of Africa, Latin America, and Asia lack the means and perhaps the political will to establish nationwide systems. Were this to happen, only selected groups in these societies would be likely to benefit; organizing such systems for the informal sector and/or a subsistence economy would be difficult. For these groups, local initiatives like the Caja may offer a promising alternative. However, level of community organization, socioeconomic conditions, macroeconomic situations (including inflation and structural adjustment), availability of currency, demographic stability, and so forth vary widely. Prepayment systems must be organized in accord with the local situation; no one 'recipe' will work everywhere. The experience with the Caja suggests various factors that can be seen as generally important to programme design. These are listed below, though not in order of importance.

- Potential beneficiaries have a common interest: they live in the same area, or, even better, share similar socioeconomic factors, such as:
  - awareness of shared financial risks due to health hazards (an awareness that the direct fee system helped to generate in Tiwanaku);
  - awareness of externalities (e.g., following an epidemic of poliomyelitis);
  - an existing community organization (as one for trading cash crops);
  - a wish expressed by the community to establish a health care facility, a community drug fund, etc.

  Such recognition of common interests and elements of organization in the community are necessary preconditions to undertaking social action; they may be influenced by health education.

- The initiative should be transparent to beneficiaries: the benefits must be tangible, the utilization of funds controllable (those who pay out the money should be nearby), social control mechanisms (for both members and executives) must be familiar and therefore local; and a homogeneous social structure within communities is not indispensable, but is very helpful. Dilemmas of social action are best solved at local level.

- Prepayment plans need to be based on concepts already present in the culture. As in the case study, the existence of a prepayment concept, even if rudimentary, may facilitate the generation of a system of prepayment. Again, these concepts are found in many cultures. The incorporation of understandable and locally common concepts (agriculture, in the case study) and affordable ways to pay (in kind, in labour, a percentage of fixed wages, etc.) are also essential.

- Active community participation is decisive both in bringing up the idea and in establishing local prepayment plans. The 'process approach' (Freire, 1971, 1987) is very useful as a methodology for achieving such participation: in this process the community seeks solutions that are adapted to local conditions. This often takes a great deal of time, but it improves the long-term sustainability of the prepayment plan. The community understands the possibilities and pitfalls of their social action better than planners. They will adapt the process to make it feasible, and go at their own pace; sometimes this will be slower than planners might wish, but it is often more rapid. Every district, every community has its own characteristics; the process approach makes it possible to vary the approach by area and/or community – an essential factor in the balanced and sustainable development of a system of prepayment.

- When using a process approach, the presence of facilitators is important. In the case study, the planners played this role. At first, it is necessary to 'catalyse' the process of action and reflection taking place within the community organization. This might include asking questions, demonstrating consequences, or posing problems that might arise, given the solutions proposed by the community; stimulating the community to action; and providing knowledge not present in the community (legal or economic information, and so forth). Once a prepayment system has been established, it becomes important to help safeguard it, for example by checking the administration and contributions (when this is requested by the community organization); by supporting activities necessary to the management of the prepayment plan; and by acting as an intermediary between the community and the donors. Further, the community and its representatives will need training in relevant skills, including resource allocation and administration; simple and understandable control mechanisms will need to be established; and the development of organizational procedures can also be facilitated. Finally, the community organization will need a system for monitoring and evaluation. As discussed further in the section on counterparts, facilitators for this process need not be supplied by an NGO; ideally, they would be attached to the state.

- The importance of leaving the final responsibility for priority setting and decision making to the community should be clear. The contribution of a facilitator is, however, never entirely free of value judgements: the way questions are asked and the choice of ideas for which support is given will always be related to one's own interests. The role of catalyst and facilitator should, after some time, be taken over by the leadership of the prepayment organization. The time this will take should not be underestimated: planners are often too quick to decide that local leaders can work independently (as with the Caja).

- Another important precondition is the presence in the community of a group of progressive people who are willing and able to invest energy in the creation of a community organization, and in mobilizing other community members. It is not necessary that they act for the good of the community alone – such motivation is apt to be lost after some years. It is preferable that they also see community financing as beneficial to themselves and their families.

The Izozog area, in the eastern part of Bolivia, provides another example. An NGO (the Swiss Red Cross) decided to transfer power over decision making and allocation of project resources (donor funds) to the local organizational structure, represented by its highest authority: the *mburuvixa guasu* (grand captain). A project evaluation (Platt, 1989) shows that from the moment that responsibilities were transferred to the community, they became much more committed to the health care project. Here too, the community itself proposed the idea of prepayment, which in this case was to be based on payment in currency and differentiated according to income. Exemption from payment was decided by the local captains (*mburuvixa*). The authorities in the community, trained by the NGO, set up a system of financial control, administration and registration. Provision and utilization of services improved considerably. Planners acted as catalysts for a process that took place in the community.

Izozog is a long way from Tiwanaku (more than 3 days by jeep); the cultures of the Aymara in Tiwanaku and the Guarani in Izozog are completely different (the latter is far more hierarchical); and there had been no contact between the two projects. There are differences between the projects as well: the NGO in Izozog transferred allocation of the budget to community representatives; the NGO in Tiwanaku did not. In Izozog, the community representatives involved in the prepayment plan were the captains, the highest level of the community hierarchy; in the Caja, second-level leaders had this function. In Izozog, contributions are in currency (as proposed by the NGO), and in the Caja, in kind (in Izozog, though, there were plans to move to in-kind payments, since income was low). In Izozog the existing political administration was identical with ancient cultural hierarchical structures, which was not true in Tiwanaku.

Income from the prepayment plan was considerably higher per capita for the Caja than in Izozog. There may have been several reasons. Neither of the two had a monitoring system, so it is difficult to draw a firm conclusion. Differences in socioeconomic standards are very small; social control was better established in Izozog, due to its social hierarchy; the two projects had been in place for similar amounts of time. Thus these factors do not provide an explanation. The difference may be that payments in Tiwanaku were in kind; and because the community in Izozog had donor funds at its disposal, there was not a great need to increase income.

The Izozog example strengthens several statements made on the basis of the Caja. A community organization should be autonomous and fully responsible for collecting and allocating their own prepayment funds (not those of the donor). Organizing community financing (e.g. who will be responsible, who will be exempt from payment, social control) should be left to the community, which must find a form appropriate to their local culture. Outsiders' influence should be limited to facilitating the process. For example, in Izozog the donor's decision to have contributions paid in currency now appears not to work well.

The role of the community in community financing

The role of the community in community financing depends on the objectives involved in asking for community participation. Often 'participation' is limited to paying a part of the cost of health services, receiving benefits in the form of (possibly improved) services in return; or helping with programme activities, such as collection of fees. In such a situation, the objective of community 'participation' is the reduction of costs.

Other approaches are more development oriented (Rifkin, 1985). They focus on increasing community influence on decision making in the health care programme – not only with respect to the benefits they will receive, but also influence on implementation, planning, monitoring and evaluation. In such approaches, questions such as whether participation will enhance social action in the community, and what skills people will acquire, are typically important. This can make community financing an opportunity for a community both to express its health needs and to move towards self-reliance. This means community participation in decision making is not 'just an ideological discussion'; it is a practical issue. When a community becomes self-reliant, the feasibility and long-term sustainability of the health care programme improve. This effect – which is much more difficult to obtain with direct fees than with prepayment – may prove far more important than the financial support provided by community financing.

The case study suggests several points with respect to the roles taken by the community and the community organization. First, beneficiaries need to establish an organization with a high level of autonomy, which is in charge of allocating the resources derived from community financing. There are several reasons for this:

- members have paid for services they have not yet received; the prisoner's dilemma makes clear the importance of demonstrating that the use of these funds is still under their control. Thus the money should remain with their organization;
- the NGO may disappear, but the community will remain: its organization must be able to act independently, when the facilitator leaves;
- if the prepayment system primarily serves the interests of the community, members will protect it. They will defend their organization, as with the Caja after the planners left.
- prepayment establishes a shared responsibility for funds; consumers will feel more responsible when the organization managing the funds is theirs. Therefore members will attempt to keep others from putting health at risk, for example, urging them to take part in preventive care: otherwise it will cost members money;
- an autonomous organization is better able than planners to make decisions on difficult matters such as planning things that are affected by seasonality, or who must or must not be exempted from payment. It is in the interest of all members to have as few people as possible exempt, and the community knows best who really can and cannot pay. For making and enforcing such decisions, it is essential to have an organization with full responsibility for collection and expenditure of community funds;

- the development significance of a project is increased when funds are managed by a local organization. The community may be strengthened both organizationally and administratively by having real decisions to make, plus the chance to learn by trial and error, with the support of the facilitator. The community may also be encouraged to undertake social actions in addition to those for health care, as when the Caja went further with trading potatoes.

  Second, it is important to establish an organization diagram for the community organization, one that will promote efficiency and efficacy. The specifics of the one used for the Caja (Chapter 2) will not be applicable everywhere, but the principles are essential. In this diagram one body, the administrative committee, is responsible for carrying out the decisions taken by the General Assembly and for day-to-day management, as outlined in Chapter 2; the vigilance committee monitors this work. Specific tasks (education, prevention, trade, and so forth) are assigned to other committees. Harvest results, budget, resources and their allocation, other results and observations are presented each third month by the two committees to the General Assembly. During these meetings, the activities of all committees are discussed and proposed for approval, a report on the accounts is presented by the NGO, and new activities are planned.

The involvement of community representatives (members of committees) was essential; without them it would have been difficult to create and maintain a prepayment system. Nevertheless, working in this way creates several problems, which are typical of community financing and must be overcome. First, whether they really are representative of their community as a whole, or just part of it. In the Caja, most communities saw the delegates' responsibilities as very important – they would be managing a lot of money – therefore they saw the importance of having delegates who were representative. But the question of whether they will remain representative, or become alienated from their fellow community members, remains. Close supervision, with regular meetings and visits of the district-level committee to each community, was indispensable.

A second potential problem is that delegates may not inform their community thoroughly. In the Caja, a contract was signed, setting out an agreement between the community and its representatives on their mutual obligations. This served to overcome the problem. A third issue related to these representatives is comparable to village health workers: will they work on a voluntary basis, or should they be paid? For such representatives, working without payment will be even more difficult than for village health workers. They lose money, they lose time when they could have worked (producing earnings), and above all they will be handling what seem like enormous sums of money. Certainly they must be paid by the prepayment system, or one day they will not be able to resist temptation – in which case the fault will not be theirs, but one of a structural problem in the system.

A fourth problem is the need to find representatives who are charismatic, and have sufficient status in their community. Their knowledge and skills are also important: can they read and write, do they know a bit about budgeting and administration (or can they learn), have they had experience in organizing activities, and so forth. Usually extra training will be needed. This must not be simply theoretical; on the job training, allowing trial and error, is also required.

The community's counterparts in organizing prepayment

In low income countries, community financing is usually controlled by health care providers, professionals working either within the Ministry of Health or in an NGO. Even apart from the advantages of having the community in control (discussed above), it would make more sense to have these funds in the hands of consumers, if only to bring the logic of market mechanisms into play. But in any case, in defining the roles of the community and its counterparts – the NGO, the MOH, the donor agency, the state – there should be a clear division of tasks.

Successful experiences with community financing in low income countries have often involved NGOs. This has a great deal to do with their local presence, infrastructural and financial strength, but also with motivation and an ability to serve as an independent mediator between MOH and community. Their local presence and orientation towards community participation puts an NGO in a better position than the central MOH to help to generate the conditions needed to start a community financing system appropriate to the needs and wants of the community. Nevertheless, there would be many advantages in having the state assume the functions of a counterpart. Its future presence is much more certain than that of an NGO, its capacity for absorbing financial failures is greater, and playing this role would be a first step towards a future, unified state prepayment system. NGOs may also have other disadvantages: these may include a particular religious or political agenda, personal interests (salaries, jeeps and so forth), an ability to offer better salaries than the MOH (leading to a brain drain from the MOH). NGOs, moreover, are rarely assured of a long-term future, and are often isolated with respect to national policy.

When MOH decision making is decentralized and motivated to start community financing, making it possible to adapt services and community financing to local demand, an intermediate possibility would be to have a district medical officer act as a facilitator: this person is related to the state, lives at local level, and if he or she leaves, someone else will arrive to take up their functions. The problem is that (s)he does not always have the skills and/or motivation to take the part of facilitator and catalyst, able to play a supportive, nondirective role. In practice, such a challenge is often taken up by an NGO, which usually can supply the needed skills and infrastructure. When the MOH is neither decentralized nor motivated to start community financing, NGOs remain the best option.

The role of the facilitator

Before community financing can begin, the first task of a planner/facilitator is to get rid of 'waste': the unnecessary costs of the health programme. (Savings may be higher than the potential learnings of community financing, according to Mills, 1988.) Next, the facilitator should initiate a baseline study. This provides a basis for a monitoring and evaluation system, so that the effect of the introduction on both services and community can be assessed. It is important, for example, to know the utilization rates for health services before and after the introduction of community financing, and to have data indicating who in the community will be excluded from which services by this introduction, as well as something about the influence of macroeconomic conditions. There was no baseline study before the Caja began; this lack not only makes it difficult to interpret data retrospectively, but also means that a potentially important

management tool is missing.

For planners, a decision to use a process approach, involving active community participation, will often require a change of attitude: a move from a planners' orientation towards seeing oneself as a catalyst, focused on community problems and development. This is a role in which one does not offer solutions to the community's problems; but instead works to stimulate the community to bring solutions forward, using a variety of participatory methods (the 'but why' method, sociodrama, posing problems in response to the solutions suggested, etc.).

This process requires working with the community to look for solutions: how to organize the management of the community financing system, resource allocation, utilization, level of fees, and so forth. This process is heavily dependent on the qualities of planners; it helps if those involved have a bit of 'charisma', or are 'populists': people who know how to communicate with the community, to motivate people, to speak their language. Not all planners have these skills.

A related challenge for planners is created by the changes that face health care workers when community financing is introduced. Many will fear losing their 'unofficial income' as a consequence of increased community control. Providers may fear that they will become part of a free market system, rather than the charitable benefactors they were when services were free. Also, they may fear that patients will demand more 'health for their buck', and that utilization rates may decrease. In the case study, nurses asked for immediate training to improve their technical skills, before community financing began.

Health care workers will only be in favour if community financing offers advantages, such as a more consistent availability of equipment, infrastructure, and resources such as drugs. When part of the fees are used to pay bonuses or salaries, these workers will be even more enthusiastic. In this case, though, the danger is that they will emphasize high-demand activities, for example, cures instead of prevention. This problem can be avoided by paying fixed bonuses, rather than relating these payments to the number of activities.

In the creation of a community financing plan, the task of the community's other counterparts – the state, the MOH, and donors – is above all to allow enough space for community financing; that is, to avoid putting too heavy a burden on it. Among the requirements is a careful preliminary assessment. Frequently MOH and donors need to pay more attention to assessing the ability of the MOH to pay the recurrent costs (salaries, maintenance of infrastructure, etc.) incurred as a result of the investments of the donor. When this is not done, later, in order to continue providing services, the community is apt to be asked to 'participate in the costs', because 'they receive the benefits'. Too, the MOH should be aware of the full consequences of community financing. Community participation in decision making is a necessary part of participation in paying the costs; benefits alone are not enough to convince the community that they should take part. In the case of the Caja, when participation led to increased demands from the community, the MOH found this threatening; participation was therefore viewed as too political.

Donor agencies can facilitate local community financing initiatives by financing technical assistance, which is greatly needed at the start to train, supervise, and provide other safeguards. But donors should not do this without realizing that it is an enormous step, creating enormous responsibilities, by generating

new expectations and pressures on the health care system. Moreover, it is a slow process – a community financing system cannot be created in a few years; it takes time, just as it did in the donor's own country.

The central government can contribute to a local community financing system by reallocating funds within the national budget: towards health care, towards primary health care rather than hospitals, towards health care in the periphery (rural areas not tightly connected to the centre) instead of the urban areas: that is, towards poorer citizens. Another possibility is to raise new funds by taxing luxury items (alcohol, tobacco, etc.) to use for health care. Together, government, the MOH and NGOs could play an important role in minimizing the financial burden on community financing by reducing health care costs. But the government could go still further, undertaking to initiate national insurance both within businesses and in the public sector. Where mutual insurance societies do exist, the government should look for ways to slowly integrate them into a national health insurance system. This may be done in various ways; Guinea-Bissau provides one example. The traditional Abota system outlined earlier has been integrated with direct fees, to arrive at a national community financing system within the framework of UNICEF's 'Bamako Initiative'. In formulating the national policy (Chabot, 1991), a situational analysis was used to evaluate the feasibility of integrating prepayment. This was possible because the Abota system had been a fairly strong institution, even though it had suffered considerable misfortune.

In this example, it is significant that the original local initiatives in Guinea-Bissau were strong enough to be joined and integrated by a national system. When such a step is taken, the central government, and/or the MOH, will have an important role to play, improving the financial monitoring system, guaranteeing drug supply, playing the role of a facilitator, and so forth.

The influence of community financing on health-seeking behaviour

Introducing community financing has had varied effects on utilization in different studies: sometimes rates decrease, but sometimes they increase. This has caused a great deal of confusion; in most cases, however, the effect has been primarily dependent on relative prices. Where services have previously been free (as in the case study), utilization tends to decline. Where prices were high before the introduction of community financing, as in Mali, rates increase (Dubbeldam, 1991). This suggests that introducing community financing will lead to decreased utilization, until consumers become accustomed to the fees. Then usage will increase, not to the initial level but to a new, lower, steady state.

It has often been assumed that excluding the poorest from services would result in lower utilization. This hypothesis may seem obvious, but has never been thoroughly studied in a prospective study, and may prove false. Several studies have demonstrated that willingness to pay for health care is relatively higher in lower socioeconomic groups: the poor pay a higher proportion of their income for health care. Studies of differences in utilization by socioeconomic classes, but also by age and sex, would be interesting; it is possible,

for example, that introducing fees is more apt to exclude women and children than to exclude men.

It has been argued (Griffin, 1987) that when direct fees are introduced, utilization rates go down because consumers begin to use health services more efficiently. The case study of the Caja does not provide statistically significant evidence, but does indicate a trend that deserves further study. Consumers did use services 'more efficiently', but in accord with their own priorities, rather than those of the public health programme. That is, not only visits for headache, but also those for diarrhoea and respiratory infections, decreased. These health problems appear to have been less troublesome to people than toothache, for which the number of visits scarcely changed.

As discussed in the first section of this chapter, such consumer preferences are an important factor in determining the quantity and type of services demanded when direct fees are charged; externalities are less important. Direct fees emphasize the market mechanisms operative in health care. Prepayment systems, on the other hand, increase the importance of externalities. Also, since they have already paid, patients are less reluctant to demand services, or to come in for follow-up visits (which is difficult to achieve with direct fees); they feel it is their right. They also seek treatment for diseases they see as less important, but which are nevertheless quite important to public health (such as diarrhoea), and become more aware of health risks. In the case study, no differences in utilization rates were seen between free services and prepayment. The disadvantage of prepayment is that service may be demanded more often for 'frivolous' diseases such as headache.

Consumer preferences are, as noted, also strongly related to the perceived quality of services. In Kentupata, a health post in Tiwanaku, the quality of services provided by the local auxiliary nurse was seen as high by the community, but as very low by professionals. His technical knowledge was far from adequate, but he was always present at the health post and treated patients very respectfully. Also, people perceive quality to be high when drugs and medical equipment are available in sufficient quantities. An interesting aspect of introducing community financing is that professionals begin to respond to the community's perception of quality: they begin to have more of a market perspective, trying to focus more on people's desires regarding health care, rather than their 'needs', as defined from the professional's own public health standpoint.

In the case study, the influence of introducing community financing on the rate of utilization of preventive services is hard to interpret; it should be studied further. The number of children vaccinated increased only slightly during the direct fee phase, but increased significantly in the prepayment phase. This could indicate that community financing, or the type of community financing, influences utilization of preventive health care. It is unlikely that variations in health education activities explain the differences between these two phases. Some key informants explained that (although this was not true) in the direct fee phase, the perceptions of the peasants led them to fear they would be charged for preventive services, just as they were for curative services. On the other hand, in the prepayment phase, there were social pressures for utilization, based on consciousness that failure to vaccinate one's child puts others in danger – and leads to expenditure of prepaid funds.

Community financing policies in China also provide some illustration of the relationship between health-care-seeking behaviour and type of community financing. In rural areas, community financing was once based on a prepayment system that had existed for centuries. In 1988, prepayment was partly replaced by a direct fee system; looking back in 1990 (World Bank, 1991), several trends that followed this change could be observed. Overall utilization had decreased; there was a greater focus on high-revenue curative services, and less on basic health services; more drugs were being sold; utilization of preventive services had decreased; governmental per capita expenditures on health had decreased, while those of the community had increased. It is too early to assess impact on health status.

Here we may conclude that community financing influences health-care-seeking behaviour in an important way. From a public health point of view, the influence of prepayment is less negative than that of direct fees. With prepayment, people will continue to come in for diseases like diarrhoea, even though these are not the most bothersome to them; and to make follow-up visits. While the possibility of an increase in demand for services for 'frivolous' diseases is a disadvantage, it does reflect the preferences of the consumer – one of the aims of the primary health care approach.

The economic input of the community in community financing

The economic input of the community in community financing could be discussed from the perspective of either the provider or the consumer – that is, based on either the cost of health care or its affordability for the consumer. From the former standpoint, the amount to be financed by the community would equal the total cost, minus the financing available from other sources (see Chapter 1), including the national budget, taxation, international aid, and so forth. We advocate instead taking the consumer perspective, not only for reasons of equity (discussed in the following section), but also for feasibility and sustainability. As the case study shows, it takes time for consumers to adapt to a certain price level. The level that is acceptable to them will increase as they learn, by trial and error, about market mechanisms in health care – that is, when they themselves become responsible for administration and resource allocation. As may be seen in both the Caja and the Abota, this does not necessarily mean fees will be low. In the Caja, when the campesinos decided the fees during the prepayment phase, the community's input was three times higher than during the direct fee phase, when the planners set the fees. In the Abota system, planners initially set the price too high. When consumers established the level of fees, they started well below that of the providers, but after some time fees increased above this level (Chabot, 1990).

As we have seen, direct fees create difficulties regarding the economic input of the community. When people have paid capital costs, such as those for construction of health posts, they may feel they have a right to use services, and refuse to pay recurrent costs, like salaries. Further, it is easier to charge for drugs or services like consultations, laboratory activities, X-rays, hospitalization, operations, and so forth than for preventive activities, training, and

educational activities or health promotion. Differentiation in fees – whether in accord with ability to pay, or with consumer preferences (charging more for popular services) or public health importance (making more important services cheaper, frivolous diseases more expensive) – may influence the total received from the community. Charges, however, are not an issue only with direct fees. With prepayment as well, it is necessary to discuss which services will be paid for by the prepayment plan, and which will not. Contributions may be differentiated in accord with ability to pay, and eventually (in a more advanced and differentiated plan, as in Europe) with respect to the type of services desired. The schedule of charges will be arrived at in negotiations between providers and the consumers' organization: the prepayment plan.

One input seldom accounted for in discussing community financing is the community's non-monetary contribution. This includes time spent in voluntary health care work, receiving training, or taking part in health promotion; but also the time it takes to travel to, and wait in, health care facilities. In the case study, only time used for training and voluntary work is taken into account, because data were not available for the other categories. In fact, however, on a balance sheet, all these factors should appear as payments by the community.

In any case, it appears that the financial resources produced by community financing are of rather limited importance. In a review of 55 health care projects, Stinson (1982) found that, on average, only 7 per cent of total recurrent costs was produced by community financing. For the Caja, this figure was 6.5% in the direct fee phase and 20% in the prepayment phase (when all costs – including expatriates' salaries – were included; otherwise, this figure was 48%). The importance of community financing in the Caja lay more in the 'side effects': increased awareness of prevention, active community participation, increased impact of community health care preferences, and, overall, an important effect on development.

Community financing and equity

Does introducing community financing mean abandoning the principle of equity? It is often expected that community financing will have the effect of excluding the poorest from health care. Whether community financing has a negative or positive effect on equity depends on a variety of factors, seen in the case study and summarized here.

- The amount to be financed by the community. This amount can be reduced by doing everything possible before community financing is introduced to reduce costs within the health care system, particularly by eliminating waste. Fully exploring all other options for health care financing (including taxation) can also decrease the amount to be financed by the community.
- The level of fees. That is, whether prices will be differentiated according to ability to pay (the 'Robin Hood' principle); whether the poorest will be exempted from payment, and what mechanisms will be established to allow exemptions; and whether the most essential health care services will be priced in a way that makes them affordable to the poorest (if necessary by raising prices for the more frivolous services).

- The extent to which local conditions are taken into account. This includes factors such as seasonal variations in purchasing power (can payment be delayed until after harvest time), and making it possible to pay in kind instead of in currency. Prepayment is usually the only way to adapt to such conditions.
- Whether community financing will be based on prepayment or direct fees. With direct fees, only those who are ill will pay for health care. Thus they will have to pay while unable to work at their usual rate – and will have less money to spend on health care; while those who are healthy will know that health care services will be available when they need them, even though they have not paid. The effect is less negative with prepayment: many more people will pay, making the contribution per capita lower than with direct fees; and more solidarity is created between the ill and the healthy. Community financing is more equitable with prepayment than with direct fees.
- What community financing funds are used for. If these are used to pay for high-demand curative services, the effect will be less equitable than if these funds are used to pay for externalities (such as prevention of epidemics), or for preventive care. That is, the extent to which community financing funds are used in ways beneficial to the population as a whole has an effect on equity.
- If a community organization has the responsibility for administration and resource allocation, paying a part of the costs will lead to an increase in the expression of health needs by the community.
- Health care consumers, and lower income consumers in particular, will benefit from the improvements in quality of services that are apt to accompany the introduction of community financing. Also, availability of drugs may improve.
- Where developmental aspects, as well as community benefits from health care, are taken into account, there will be a positive effect on equity. The questions involved include whether administrative and organizational capabilities in the community will increase due to the introduction of community financing; whether the influence of the community on health care decision making (planning, monitoring, and evaluation) will increase with the introduction of community financing; and whether the community will have any influence on rate schedules and utilization of funds. If these conditions obtain, community financing may even lead to empowerment.

  Such equity-impacting factors should be monitored from the beginning of a project, to allow an assessment of their effects, and, if necessary, to make it possible to adapt community financing policies such as the level of fees.

In addition to asking whether community financing will have a negative effect on equity, it is also necessary to look at what happens *without* community financing. In Guinea-Bissau (Chabot, 1991), drugs were provided free of charge. However, the salaries of the prescribers were low; this induced them to create the appearance that drugs were 'out of stock'. Then they told patients to come back after office hours, when they could sell some of 'their own' drugs. In Mali, contraceptives are free, but midwives sell their supplies to private pharmacies. Contraceptives are therefore soon out of stock, and women must go to the private pharmacies, where they are sold at a price six times higher than would be charged in an essential drug system based on cost recovery. Another possible effect of community financing is that drugs will once again become available in the public sector; they will be less apt to 'disappear' into

parallel markets, due to the stock control provided by community financing; further, the money provided by community financing will make it easier to replace stocks and maintain a continuous supply.

In fact, the poorest people have virtually no access to an acceptable level of health services. Where there is such access, this is generally due to an (always temporary) intervention by a donor. For those who have no access – still the vast majority – the private sector is the only alternative. Community financing is a way of providing much greater access than with private sector services. In Mali (Dubbeldam, 1991), the mean price of drugs prescribed per physician visit decreased from 4,200 FCFA ($18) to 900 FCFA ($3.65) after the introduction of a total-cost-recovery essential drugs programme. This was not only because generic drugs were cheaper than the previously used brand-name items, but also because prescribing was rationalized, and rigid controls were initiated, which cut losses of stock.

The principle of equity is too complex a matter to allow a general conclusion that a given system will exclude the poor from health services. However, using the argument of 'equity' as a reason *not* to introduce community financing may be counterproductive. Under the right conditions, community financing may have the potential to increase equity.

Notes

1. When a community has decided to participate, but some individuals refuse, sometimes the community solves the problem by forcing their participation. This is more likely in indirect than in direct fee systems, because one individual or one community can endanger the whole system of prepayment.
2. This in turn impacts many direct fee programmes, which depend on selling essential drugs to help cover costs.

4 Conclusions

In many parts of the developing world, cost recovery and community financing programmes are being used to fund health care. There have been many theoretical discussions, but too few experiences from the field have been analysed in the literature. Where this has been done, it is typically from the economic perspective of the providers. The case of the Caja illustrates a different approach, based on the standpoint of the health care consumer.

The presentation of an 'ultimate' model for community financing has not been the purpose of this study. Nevertheless the principles discussed can be seen as providing a serious alternative, which may be useful elsewhere. In particular, the three-stage evolution of the project, with one phase in which services were 'free', followed by a phase with direct fees, and finally one with indirect fees, suggests lessons regarding the development of a community financing programme. While the possibilities for quantitative analysis are limited (see Introduction), an analysis of the process and results of the Caja project shows interesting trends. These suggest several conclusions, which are summarized below, and some suggestions for further research: the observations made in this case need to be tested further.

- Many, including the author, have always found the equity principle an argument against the introduction of community financing: the poorest might thereby be excluded from health care. However, the case study suggests this is not necessarily true, at least for NGO projects. Introducing community financing may extend the availability and accessibility of health care, while not introducing it might exclude many who, with community financing, could potentially be served. Further, community financing can provide funds to improve low-quality services that serve large numbers of people, and it may serve as a means to achieve real community participation: it can give the community a power base and decision-making authority, and provide practice in making choices within a defined budget.

  Under certain conditions the effect may be to diminish negative effects on equity, or there may even be a positive effect – that is, if providers reduce costs, thus decreasing the need for input from the community; if the state does not lower its contribution, due to community financing; if fees are adapted to the local situation (level and differentiation of fees, plus taking account of seasonality) to assure affordability; and if funds are used to provide services beneficial to all members of the community. Further, as people become involved in expressing their health needs in a more effective way (as a result of participation in community financing), it may even lead to empowerment. Prepayment systems are more likely to provide these conditions than are direct fee plans. These points suggest that community financing should not always be rejected for reasons of equity; however, monitoring will be needed to diminish negative effects and reinforce positive ones.

Men and women of the community building a wall around one of the potato fields of the Caja. The health post can be seen in the background

- When direct fees are introduced, utilization rates tend to decrease, in comparison with situations in which services are free. It has often been claimed that this is because patients use services more efficiently. This is true to a certain extent: in the case study, as noted, people did use services less for diseases they saw as less important, like diarrhoea; but this does not match public health providers' ideas of more effective service utilization. In the prepayment system, utilization rates went up again, and reached a level equal that with free services; in addition, patients appeared for follow-up visits, which seldom happened with direct fees.

- The initial financial input of the community should not be determined simply by the cost of health care services. People need time to adapt to a system of charges, or to new prices, and even to the idea of community financing. When they become involved in their own health care and aware of the costs of making improvements, they are apt to raise the level of fees themselves; arrangements between providers and consumers will constantly be adapted to new situations. On the other hand, this and other studies have made clear that, even with community financing, recurrent costs can only partly be recovered. Nevertheless, this was almost three times higher in the prepayment system than with direct fees.

- Various factors will play a role in determining whether people will be prepared to pay for health care. First, of course, is affordability – people's income, versus the price of services. But choices about how people will spend their

income (their 'willingness to pay') will also depend on the value health has for them. In economic terms, their preferences will determine the elasticity of demand. Health care preferences will in turn depend on factors like availability, accessibility, and quality of services. Providers need to be aware that when community financing is introduced, these will have to be improved. Here too, however, patients may define quality in their own way, and prefer services seen as frivolous by health care workers (perhaps medications that are not included among the essential drugs, or a personal approach).

- Some additional factors also impacted willingness to pay in the case study, including the community's influence on decision making with respect to the funds, the way the prepayment system was created, and the benefits to the community apart from health care.

Community prepayment versus direct fees

Prepayment has advantages over direct fees: it is more equitable, and can take externalities into account; the potential financial input is higher, and preventive care comes to be more highly valued, because people have prepaid. However, prepayment is not often used for community financing; direct fees are usually preferred. This is strongly related to the conviction of many policymakers that prepayment systems are far more difficult to set up, because of the necessity of organizing the community. The factors that made community organization relatively easy in the Caja have been detailed in earlier chapters, particularly the possibility of building on existing traditional practices. As noted, it seems likely that many other societies will also include elements – although these may be hard to see – that are relevant to organizing for prepayment. For example, there are often pre-existing local forms of risk management or mutual support, which help communities to deal with family matters like funerals or with natural disasters. With sufficient willingness to work with the community, and openness to local knowledge, these can be used to create an effective system.

Another critically important element in the success of prepayment is the outcome of the decisions people must make in deciding whether they are prepared to participate in prepayment. Every individual will weigh the expected positive and negative results. The outcome will depend not only on preferences, but also on considerations related to the various dilemmas of social action considered in earlier chapters: what will happen if I do or don't participate? what will the rest of the community say? Will I still receive services if I don't pay – and if so, why pay? If I do pay, will others (individuals or communities) be able to get a 'free ride', receiving services without payment?

In the case study, these dilemmas seem to have been overcome. The following points (not in any order of priority) seem to explain this:

- the introduction of direct fees before prepayment increased people's awareness of health care costs, and that they shared a financial risk;
- individuals shared a common interest in the health care services provided by the project, and felt that failure to participate would mean loss of these services;

- the mixture of direct fee and prepayment was essential – those who did not want to participate in the Caja could pay direct fees;
- there were additional, often personal benefits: learning new skills; improving one's financial situation; and decision-making power, due to the community's financial input;
- the NGO facilitated participation, provided technical support (e.g. bookkeeping), and guaranteed the community's health care fund;
- prepayment was a local initiative: both benefits and control over utilization of funds were tangible, being located in the community;
- the prepayment system was in the hands of an autonomous community organization;
- the means of payment – in-kind contributions – was adapted to local circumstances;
- the local culture's ancient concept of prepayment not only made it easier to organize, but also helped to deal with the dilemmas of social action;
- the methodology used to introduce and organize prepayment also had this effect;
- the community organization had the right to 'trial and error';
- the culture of the local community was homogeneous, and social control mechanisms functioned well.

In organizing a community for a prepayment system, it is important that the members of the group see the system as their own, and as their responsibility. The system must make use of clear concepts, and of procedures that are feasible and understandable for the group. This is most easily achieved when the organization is autonomous, when it handles only community (not donor) funds, and when a process approach is used in setting it up. This can be done by a facilitator (who might be staff of an NGO, or a district medical officer), who catalyses action and reflection on community processes. Such a facilitator, as outlined earlier, should not propose solutions to community problems. Instead, the community must be stimulated to find solutions to its own problems, and then be confronted with questions that help them to think in greater detail about the advantages and disadvantages of the solutions they have proposed. The facilitator should also provide knowledge, teach skills (including organizational skills) the community needs, and help to construct an organization diagram. However, the final responsibility for decisions, including priority setting, should stay in the hands of the community organization.

In the case study, the facilitator also functioned as a safeguard – providing bookkeeping reports to the members of the Caja, acting as an intermediary with donors (who wanted to provide them extra money, which would have endangered the prepayment plan), with the MOH (which saw the plan as a potential political threat), and with local traders (who saw the potato-growing and marketing plan as a potential threat to their businesses). One lesson of the case study is that the facilitator's support must not be ended too soon. With the Caja, after two or three years we believed the organization was strong enough to stand alone, and feared the organization would become too dependent. However, withdrawal led to problems, in particular with respect to the lack of the safeguard function. Organizing a prepayment system takes time! Another important lesson is that planners – whether expatriates or nationals – do not

always recognize local conditions and concepts (time often does not equal money, there are local ways of regulating contributions, and so forth).

The additional lesson suggested by experiences in Europe and the US is that prepayment should start with small local initiatives, like the Caja, which may (and in fact should) later be brought together and integrated by the state. Until that time, the role of the state should lie in the creation of the necessary space for these local plans. This can include creating a more advantageous financial situation, by reducing and rationalizing health care costs; and maintaining flexibility in its relationships with local initiatives.

Research agenda

The results described in this Bulletin answer certain questions, but they also raise a number of issues that require further research. First, the discussion suggests several topics for action-oriented research: not only classical issues like feasibility, costs–benefits and such, but above all the need to study ways to eliminate 'waste' in health services.

Cultural concepts are also clearly an important issue; it seems advisable to acquire an understanding of the local culture before beginning community financing – especially when a prepayment plan is involved, but also when direct fees are to be charged. Such an anthropological approach would be useful in seeking 'disaster preparedness' mechanisms or other existing forms of risk sharing in the local culture. Further, it is helpful to look for organizational forms that would be consistent with the culture and could help to establish and maintain community financing, and seek mechanisms of social control that would help to overcome the dilemmas of social action (including the 'prisoner's dilemma'). Too often, ignoring local cultural concepts has been a barrier to community financing; qualitative research could help to overcome this problem, and need not be exhaustive to achieve this aim.

Since the decision-making power of the community with respect to the level of fees and the purchases made with community financing funds proved to be very important for the Caja, it would be worthwhile to explore community participation in such projects.[1]

With respect to more fundamental research, a prospective study of differences between free-of-charge services, direct fees, and prepayment plans would be interesting. Such studies could be carried out before and after the introduction of a particular system in one area, or different types of community financing could be introduced at the same time in comparable areas. Differences in the following might be explored:

- utilization of curative care services;
- 'frivolous' utilization of curative care (measured separately per disease);
- utilization of preventive care;
- effect of the introduction of community financing on quality of care (as defined by both consumers and providers);
- effects on health care workers (e.g. effects of differences in payments, equipment, and community participation on their willingness to work);

- type of services judged as 'more important' by the community;
- willingness to pay for 'externalities';
- financial input of the community.

Since equity is one of the main issues in community financing, any such study, if at all possible, should be stratified socioeconomically. Any study of a community financing programme should look at effects on equity, including whether the poor are excluded from health care, differences in health care utilization according to socioeconomic status, and effects on their expenditures (which suggest priorities) of different types of funding.

The case study of the Caja

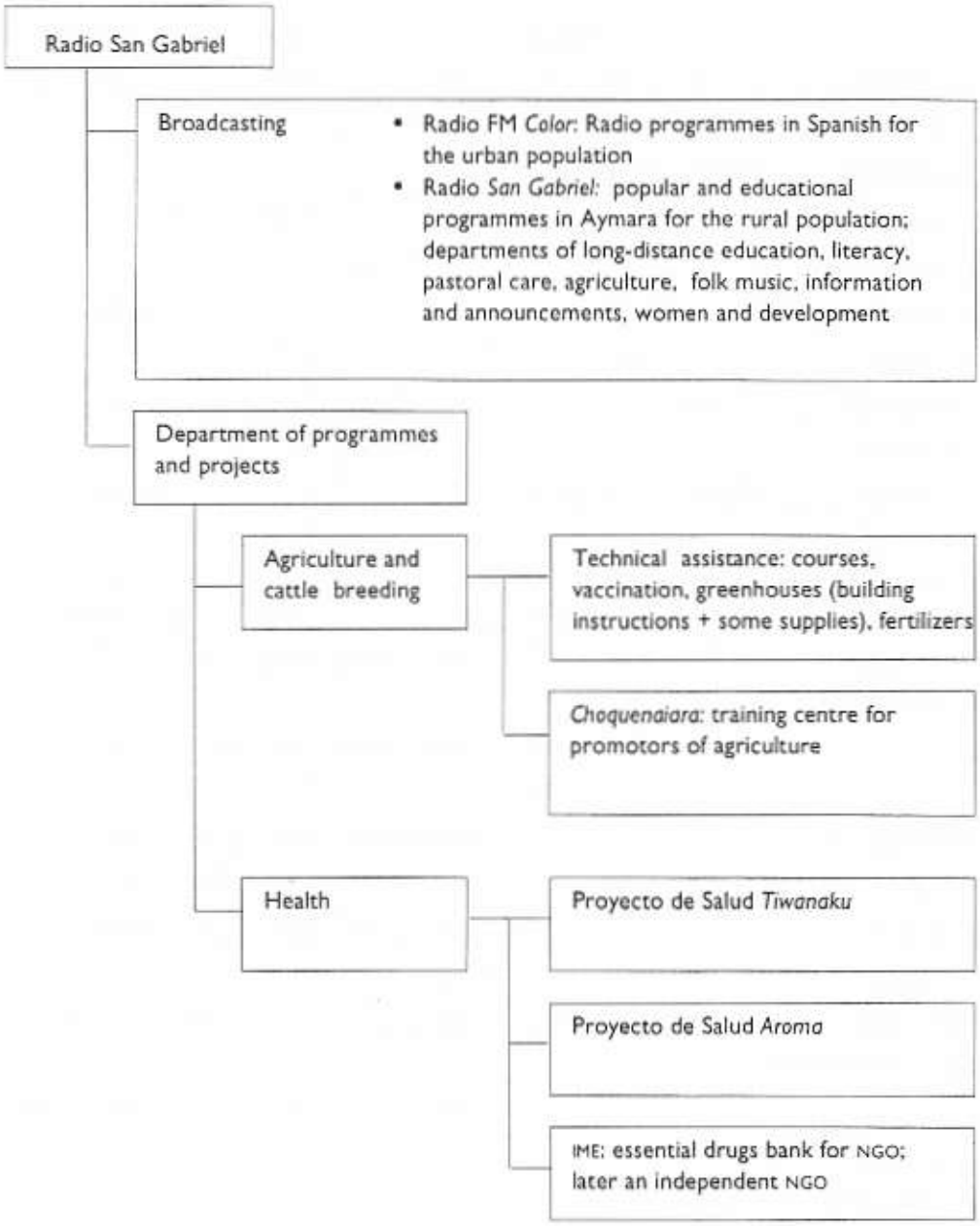
Can the Caja be used as a blueprint for the development of prepayment plans elsewhere in the developing world? Certainly not – although these experiences may be useful. An important lesson of this case study is that blueprints do not work, and pre-formed Western economic concepts, including the free market, often cannot be applied in these situations. Local and/or cultural, economic and organizational conditions strongly influence financial transactions and organizational modes. In the case study, local conditions included a subsistence economy, made up of independent one-family enterprises, as seen in many rural areas of the world. Urban areas will have different conditions, which are often more favourable to the creation of a local prepayment plan: people are less dispersed, and, for example, work together in factories, which may encourage them to see that they share a common lot in life.

Another important lesson of the case study has to do with its effects. In the end, the financial input from prepayment was not necessarily the most significant outcome. The 'side effects' may in the long run prove far more important: increased community participation in and increased awareness of health care; positive effects on community development; an improvement in family income of Caja members; and even a certain degree of empowerment. Given such benefits, community financing may come to be an important strategy for achieving Health for – at least almost – All, though this will certainly take place somewhat after the year 2000.

Note

1. The 'spider web' tool developed by Rifkin et al. (1988) might be useful here. It is too subjective to allow firm quantitative statements, but could be a useful community participation monitoring tool for a district health team.

Appendix 1 Radio San Gabriel



Appendix 2 Input from all institutions, per year (in US$)

	PHASE 1					PHASE 2		PHASE 3	
Capital costs	1980	1981	1982	1983	1984	1985	1986	1987	1988
External agencies									
• construction	30,000	21,500	20,000					12,061	
• transport			14,370	32,000		9,850			
• communication					73,734				
• medical equipment		41,902						6,000	
• hardware		31,000				4,000			
Total external	30,000	94,402	34,370	32,000	73,734	13,850		18,061	
Local population									
• construction	75,000	100,000	25,000					20,800	

	PHASE 1					PHASE 2		PHASE 3	
Recurrent costs	1980	1981	1982	1983	1984	1985	1986	1987	1988
External agencies									
• salaries	27,450	52,250	50,510	30,360	17,060	25,886	30,016	31,080	25,970
• training	14,550	18,050	8,690	6,100	4,600	9,000	11,000	10,400	6,400
• administration	-	-	-	3,500	1,000	5,800	2,500	1,500	1,500
• drugs	500	500	500	2,200	3,900	1,400	1,700	2,900	2,700
• transport	-	-	500	1,000	3,500	6,000	3,500	4,500	4,500
• contingencies	3,500	3,750	2,910	2,600	2,090	3,490	3,690	4,220	3,540
Total external	46,000	74,550	63,110	45,760	32,150	51,576	52,406	54,600	44,570
National government									
• salaries	1,750	1,750	1,750	4,900	2,330	2,140	3,990	10,500	13,200
• maintenance	-	-	-	-	-	-	-	7,525	-
Local population									
• 'salaries'	-	-	-	800	900	1,125	2,775	4,420	3,540
• fees	-	-	-	-	-	1,200	2,600	1,800	1,600
• Caja	-	-	-	-	-	-	-	1,200	7,600
For comparison: daily wages	5.00	5.00	5.00	4.00	3.00	2.50	2.50	3.00	4.50

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This Bulletin explores the processes that took place in Tiwanaku during the creation of the structures for community financing – something Susan Foster suggested while I was writing my thesis at the London School of Hygiene and Tropical Medicine. I did not find this possible at the time, but Pieter Streefland at the Royal Tropical Institute (KIT) and my editor at KIT Press have helped me to move in this direction since coming to work at the Institute.

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About the author

Jurrien Toonen was born in 1953 in the Netherlands, and became a medical doctor in 1980. From 1983 to 1988 he worked in Bolivia, first in the traditional health project *Wankollo*, and later with radio station San Gabriel's Tiwanaku project. In this latter position, in addition to serving as one of the two planners in the case study presented in this Bulletin, he was coordinator for primary health care activities and was involved in the preparation of radio programmes and materials for health education. He was also one of the founders of an essential drug bank for Bolivian NGOs and wrote various papers on rational drug use.

In 1989/1990 Toonen completed an MSc in Community Health in Developing Countries at the London School of Hygiene and Tropical Medicine. Afterwards, he joined the health care and disease control group at the Royal Tropical Institute (KIT) in Amsterdam. On behalf of this Institute, he is presently the team leader of the bilateral health care project in the Segou region of Mali, where community financing and essential drugs continue to be among his special interests.

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As financing for health care has become more difficult, the idea of recovering costs from the community has become increasingly attractive. The case study in this publication presents an unusual opportunity to compare some of the possibilities: a phase in which health care was provided 'free' was followed by two types of community financing. Direct user fees for services and drugs were introduced in the second phase; in the following phase, a prepayment plan was developed. Based upon contributions in kind (potatoes) and labour, this system was organized, owned, managed and supervised by a community organization. Comparisons among these phases allow a discussion of the impact of community participation on decision making in health care, as well as financial inputs. The cultural context – which supported the development of the prepayment plan, as did the match among the interests of the actors concerned – is thoroughly explored. Among the 'side effects' were an increase in the empowerment of the community and a strengthening of community organization.

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