Towards sustainability in village health care in rural Cameroon

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SUMMARY
The Life Abundant Programme (LAP), a church-sponsored primary health care project in rural Cameroon, was founded on the principles of community participation and self-reliance. Beginning in 1980 in four villages, the project is now active in 40 Primary Health Centres and 14 Integrated Health Centres. The purpose of this paper is to evaluate the sustainability of the first 16 LAP-associated Primary Health Centres after 17 years of field practice, and to share lessons learned from that experience. After 9 years, 13 (81%) communities were active; and after 17 years, 14 (87.5%) were active. Village factors contributing to sustainability include community management of their own health programs, community financial self-reliance, village integrity in money management, annual continuing education for all health workers, and continuing support by Project staff. Factors contributing to sustainability at the Integrated Health Centre level are: receipt of adequate fees from patient curative services; the clinical expertise of health workers as well as their positive relationships with the community people; and continuing medical and LAP support. At the Project Administrative level, factors include adequate staffing, a close working relationship with government health authorities, and financial support from within the country as well as continuing donor agency support from outside. At all levels of LAP activity, commitment to the Biblical philosophy of love, compassion and integrity contribute to sustainability.

Key words: commitment; participation; self-reliance; sustainability

INTRODUCTION
Sustainability refers to the continuing ability of a project to meet the needs of its community (Bracht et al., 1994), and embraces the concept of doing this beyond the time of donor agency involvement (Brinkerhoff and Goldsmith, 1992). The problem of sustainability of a community health project in Cameroon was described two decades ago (Isely, 1979). The Public Health Training Project, jointly sponsored by the University of Pittsburgh and OCEAC (Organisation pour la Coordination de la Lutte contre les Endemies en Afrique Centrale), focused on the Village Health Committee (Isely and Martin, 1977). Beginning in South Cameroon in 1972, the project quickly increased to 43 active committees by 1976. However, when the project staff left that same year, the itinerant health workers disappeared, and after 2 years, only three committees were found to be active. A number of problems were reported.

(1) Problems intrinsic to the population:
(i) the gap in cultural understanding of the etiology of most diseases;
(ii) the state of relative disorganization of most villages;
(iii) lack of interest;
(iv) physical factors: seasonally poor roads; demands of planting; cultivation; and harvest.

(2) Problems intrinsic to the methods used:
(i) inappropriateness of the Project timetable to the level of readiness of the villages;
(ii) a tendency to focus on quantitative rather than qualitative results;
(iii) the risks of operating with an open agenda.
(3) Problems related to the political and social structure:
   (i) administrative locus of Project outside the Ministry of Health;
   (ii) no official responsibility by Ministry of Health taken for supervision of itinerant agents in the work with villages [(Isely, 1979), pp. 109–111].

Recent studies by the World Bank and the United States Agency for International Development (USAID) reveal the current enormity of the problem (Brinkerhoff and Goldsmith, 1992). Almost half of the World Bank studies had difficulties in sustainability, and only 11% of the USAID projects were rated as sustainable without outside assistance. Concern for sustainability has accelerated in the 1990s (King, 1990; Labonte, 1991; Macdonald, 1992; Lefebvre, 1992; Weaver and Beckerleg, 1993; LaFond, 1994; Litsios, 1994; Woelk, 1994; Rissel et al., 1995; Aubel and Samba-Ndure, 1996; Hoque et al., 1996; Stefanini, 1996).

The literature has also identified other factors for sustainability in developing countries. For example, factors from two health development projects in Nepal (market garden and smokeless stove) include:

judging when and how to bridge community development issues to specific health concerns, sensing community readiness for action and reflection, balancing emphasis on process with outcomes, and facilitating the quality of the interface between the newly empowered communities and official health agencies [(Purdey et al., 1994), p. 342].

Factors contributing to sustainability in a community nutrition program in the Gambia are:

Community responsibility and ownership, ..., compatibility with community norms and values, ..., building on existing social units and roles, ..., motivation, training and supervision of community actors, ..., community contribution of resources, ..., less complex interventions, ..., support from key male and female community leaders, ..., collaboration with community development agents, ..., adequate knowledge, ...


The purpose of this paper is to describe lessons learned about sustainability from a church-based organization in Cameroon with 17 years of field experience. The Life Abundant Programme (hereafter called Project), the primary health care arm of the Cameroon Baptist Convention, began work in four villages in 1980, and is now active in 40 Primary Health Centres and 14 Integrated Health Centres in four provinces. Over 104 Health Promoters and Trained Birth Attendants (TBAs) serve their communities through these centres.

PROJECT SETTING

Cameroon, a tropical country, has an average yearly temperature range of 20–28°C [(Aaron, 1982), p. 21]. The four provinces in which LAP works fall in two natural regions, grasslands and mountains. Cameroon is a land of ~200 languages (US Bureau of Public Affairs, 1992), and the Life Abundant Programme (LAP) works with over 30 of these.

Cameroon had a population of 13.9 million in 1995 with 56% rural, 44% under 15 years and a per capital GNP of US$ 650 (Population Reference Bureau, 1997). Infant mortality was 65 per 1000 live births; maternal mortality 550 per 100 000 live births; and life expectancy at birth 55 years (Population Reference Bureau, 1997).

Non-government organizations (NGOs) play an important role in the country’s health care. In Cameroon, 24% of all health sector employees and 34% of all medical facilities are from the private sectors [(Ogbu and Gallagher, 1992), p. 621].

THE PROJECT

In 1980, the Project was born out of deep concern for the many observed and expressed health needs of isolated mountain communities in the North-west Province, and has expanded its primary health care activities to Western, Adamawa and South-west Provinces. From the onset, the Project has operated on a philosophy of community self-reliance, falling into the category of small-scale local community development projects (Korten, 1987; Richie et al., 1995). Co-operating with each provincial health care authority, the Project works in communities without other health services.

The Project is active at three levels of organization: the village Primary Health Centre; the Integrated Health Centre serving a number of
in villages; and Project Administration. In the village, the Village Health Committee (VHC) administers and manages the activities of the village centre. The VHC also assumes all financial costs of its local work, including its Health Centre building, training costs of the committee, promoters and TBAs, and drug purchases. The promoters treat common ailments symptomatically with 22 simple drugs. Environmental sanitation and safe drinking water are strongly promoted. Target groups are child-bearing mothers and children under 5 years.

Support is given by the Integrated Health Centre receiving referrals from village Primary Health Centres, and by LAP Administration. The mobile Integrated Health Centre Team, led by the area primary health care co-ordinator, makes periodic village visits for immunizations, antenatal checks and treatment of sick people referred by the promoter. The team also dialogues with the committee, promoters and TBAs, facilitating local planning, implementation and evaluation of community health care. The Project Administrator gives overall administrative direction, and the Education Supervisor leads in the education program of all health workers.

After 6 years of Project operation, research began on a more bottom-up approach to health care, built on the community's definition of health and prescription for health (Eliason, 1996). By the end of 1997, five communities, including three of the above 16 villages, had participated in this community-determined health care approach based on Freire's theory of conscientization (Freire, 1970).

**PROJECT SUSTAINABILITY**

Project sustainability is examined at three levels: the village Primary Health Centre (PHC); the Integrated Health Centre (IHC); and Project Administration. The first 16 villages to implement Project activities were started between 1980 and 1987; all were evaluated from their inception to the end of 1997 to determine their sustainability progress (Table 1). ‘Active’ refers to functioning health promoters and financially viable village PHCs. Progress indicators include the addition of TBAs and/or Nurse Aids (NAs), and in some cases, development into an IHC. ‘Closed’ refers to the locking of the medicine box and cessation of health promoter activities; however, area co-ordinator visits continue with immunizations and problem-solving dialogue with the village committee.

Of the 16 PHCs opened between 1980 and 1987, 81% were active 9 years after the first PHC opened, and 87.5% after 17 years. Three were closed and one had developed into an IHC by 1989; two were closed and three functioned as IHCs by 1997. Jator is planning to reopen, and the Kwak community is continuing to deal with its problems.

In evaluating factors which appeared to contribute to sustainability, five village factors emerge: support of the VHC by the Chief and his traditional rulers; VHC integrity in money management; an active committee; VHC felt need; and trustworthy promoters (Table 2). Support by the Chief and his rulers is measured by their attendance and/or positive involvement in the VHC work; VHC integrity in money management; an active committee; VHC felt need; and trustworthy promoters by two indicators: no embezzlement of PHC money and drugs, and promoter behavior acceptable to the VHC. The asterisk (*) denotes that there has been an overall pattern of the sustainability factor, and the character ‘—’ means

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**Table 1: Sustainability of first 16 LAP primary health centres, 1980 to December 1997**

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<tbody>
<tr>
<td></td>
<td></td>
<td>(after 9 years)</td>
<td>(after 17 years)</td>
</tr>
<tr>
<td>1 Bom</td>
<td>1980</td>
<td>(Closed)</td>
<td>Active</td>
</tr>
<tr>
<td>2 Mfe</td>
<td>1980</td>
<td>Active</td>
<td>Active, TBA</td>
</tr>
<tr>
<td>3 Ngung</td>
<td>1980</td>
<td>Active</td>
<td>Active, TBAs</td>
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<tr>
<td>4 Sih</td>
<td>1980</td>
<td>Active</td>
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<tr>
<td>5 Jator</td>
<td>1982</td>
<td>Active</td>
<td>(Closed)</td>
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<tr>
<td>6 Koffa</td>
<td>1982</td>
<td>Active</td>
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<tr>
<td>7 Kwak</td>
<td>1982</td>
<td>(Closed)</td>
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<tr>
<td>8 Mbeji</td>
<td>1982</td>
<td>Active</td>
<td>Active, TBA</td>
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<tr>
<td>9 Nkot</td>
<td>1982</td>
<td>Active</td>
<td>Active, TBAs</td>
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<tr>
<td>10 Adere</td>
<td>1984</td>
<td>Active</td>
<td>TBA</td>
</tr>
<tr>
<td>11 Akeh</td>
<td>1984</td>
<td>Active</td>
<td>TBA</td>
</tr>
<tr>
<td>12 Ngounso</td>
<td>1984</td>
<td>Active</td>
<td>IHC</td>
</tr>
<tr>
<td>13 Ntim</td>
<td>1984</td>
<td>Active</td>
<td>Active, TBAs</td>
</tr>
<tr>
<td>14 Nyamboya</td>
<td>1984</td>
<td>IHC</td>
<td>IHC</td>
</tr>
<tr>
<td>15 Allat</td>
<td>1986</td>
<td>Active</td>
<td>IHC</td>
</tr>
<tr>
<td>16 Lutu</td>
<td>1987</td>
<td>(Closed)</td>
<td>Active</td>
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Active PHCs 12 11
IHCs (from PHCs) 1 3
Total active 13 14
Per cent active 81% 87.5%
that the sustainability factor broke down sometime during the 17 years.

Six villages revealed four sustainability factors: Ngung, Kwak, Mbeji, Akeh, Ntim and Lutu. Three villages revealed three factors: Sih, Koffa, Adere; and three villages, Mfe, Jator and Nyamboya, two factors. Bom had only one factor. On the other hand, three villages displayed all five factors: Nkot, Ngounso and Allat.

The most common sustainability factors, found in 12 villages, included: active VHCs; and VHC felt need. The second most common grouping of factors, displayed in 11 villages, were: support for the VHC from the traditional rulers; and VHC integrity in money matters. The least common sustainability factor was trustworthy promoters; this factor was evident in nine villages.

**DISCUSSION**

A large percentage of LAP PHCs were sustainable in contrast to the demise of primary health care in the University of Pittsburgh-OCEAC project of south Cameroon described by Isely (Isely, 1979). Both projects were built on concepts of community participation with a focus on leadership by the VHC. However, there were many differences in the projects. For example, LAP began with very little funding, while OCEAC had large funding grants; and LAP began as a ministry of the Church, while OCEAC was a secular project.

The main village factors causing closure of the LAP Centres appear to be lack of integrity with money and drugs on the part of the promoters, lack of support from traditional rulers, lack of VHC integrity with money, inactive VHCs, and lack of felt need. The above factors are similar to the problems intrinsic to the population listed by Isely (Isely, 1979).

In addition to the village factors contributing to PHC sustainability, there appear to be two other forces in the process: the Church; and Project leadership. The Church was instrumental in the opening of all 16 PHCs, based on LAP philosophy that the Church, as a centre of wholeness, has a responsibility to minister to the underprivileged and suffering in the community. All PHCs, with the exception of Nyamboya, started with the village Church as the channel to community-based LAP activities (Nyamboya was started as a project of the district Church Association rather than by the local village). Commitment to the Biblical values of love, compassion and integrity in health workers is perhaps the main factor for the longevity of village LAP health care where it has been successful.

<table>
<thead>
<tr>
<th>A Support from trad’l rulers</th>
<th>B VHC integ with money</th>
<th>C VHC active</th>
<th>D VHC felt need</th>
<th>E Promoter trustworthy</th>
<th>Total factors present</th>
</tr>
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<tbody>
<tr>
<td>1 Bom</td>
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<td>1</td>
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<td>2 Mfe</td>
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<tr>
<td>3 Ngung</td>
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<td>4</td>
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<td>4 Sih</td>
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<td>*</td>
<td>*</td>
<td>3</td>
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<tr>
<td>5 Jator</td>
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<td>*</td>
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<td>—</td>
<td>2</td>
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<td>6 Koffa</td>
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<td>3</td>
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<td>7 Kwak</td>
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<td>4</td>
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<td>8 Mbeji</td>
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<td>4</td>
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<td>9 Nkot</td>
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<td>5</td>
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<td>10 Adere</td>
<td>*</td>
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<td>—</td>
<td>3</td>
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<tr>
<td>11 Akeh</td>
<td>*</td>
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<td>4</td>
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<tr>
<td>12 Ngounso</td>
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<td>*</td>
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<td>*</td>
<td>5</td>
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<tr>
<td>13 Ntim</td>
<td>*</td>
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<td>4</td>
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<tr>
<td>14 Nyamboya</td>
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<td>15 Allat</td>
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<td>16 Lutu</td>
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<tr>
<td>Total factors 11</td>
<td>11</td>
<td>11</td>
<td>12</td>
<td>12</td>
<td>9</td>
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</tbody>
</table>

* Factor consistently present; —, factor breakdowns. Indicators of factors: A, attendance and/or positive involvement in VHC work; B, no PHC fund embezzlement by VHC; C, regular meetings and reporting of VHC; D, expressed need from VHC; E, no embezzlement of PHC funds or drugs by promoter; promoter behavior acceptable to VHC.
Project leadership has to do with two areas of influence: philosophy and support. The Project is committed to help communities toward self-reliance in health care. It puts no money into the village PHC; the community funds the education of its promoters and TBAs as well as the PHC medicine, pays its health workers for their part-time work, and puts up its own health building. In addition, the VHC manages the activities of its PHC. The main function of Project leadership is to facilitate village ownership of their health care.

Project support appears to be the other critical factor in village PHC sustainability. The IHC mobile team, led by the area co-ordinator, encourages a high level of performance of the village PHC. Support includes regular dialogue with the community and VHC as well as continuing education for promoters, TBAs and VHCs. Further, the community-determined health care process based on Freire’s conscientization theory, facilitates a reflection–action spiral which contributes to community ownership of health care. Expenses of mobile visits to villages are realized from curative services through a cost–recovery system. Even during closure of some of the above PHCs, the area co-ordinator continued as a facilitator in problem-solving dialogue with the VHCs and communities. This resulted in actions, e.g. the appointment of new committees and promoters, the correction of financial problems, and the reopening of centres.

The above factors confirm many factors found by Aubel and Samba- Ndure [(Aubel and Samba-Ndure, 1996), pp. 54–56] in Gambia which contribute to sustainability: ‘community responsibility and ownership’, ‘motivation, training and supervision of community actors’, ‘community contribution of resources’, and ‘adequate knowledge’. In contrast, Isely reported the problem of lack of supervision of village work (Isely, 1979).

Factors which appeared to contribute to sustainability of IHCs include receiving adequate fees from patient curative services, and the clinical expertise of the IHC health workers as well as their positive relationships with the community. Support through continuing education and on-site interaction by the referral Hospital Medical staff and Project Administration appeared to be essential for quality performance of the IHC staff.

At the level of Project Administration, two factors appeared to be critical to sustainability: adequate staffing and financial viability. Operating expenses were covered mainly by the Health Board of the Cameroon Baptist Convention and a German donor agency, Bread for the World. For example, in 1993 the Health Board contributed 43%, and the donor agency 38%. The remaining 19% of income was realized from the sale of drugs and vaccines, and from gifts. A small government subvention was received for 2 years only, 1986 and 1987.

Is the Project sustainable without help from a donor agency outside the country? The World Bank estimates the cost of clinical and preventive health services of developing countries is $12.00 per capita per year (World Bank, 1993). Low-income countries require long-term commitments from donor agencies for health care operational costs (LaFond, 1994). Cameroon’s economy is declining: the per capita GNP fell from US $820 in 1992 (Population Reference Bureau, 1994) to $650 in 1995 (Population Reference Bureau, 1997). Because of economic decline, the Project cannot expect further subventions from the Cameroon government, and neither can it expect complete financial support from the Church. Therefore, it will be necessary to receive continuing donor agency funding into the foreseeable future to assist in the administrative costs in support of village health care.

CONCLUSION

Although the village PHCs are self-sustaining financially, they continue to need the facilitative support of district level health workers at the Integrated Health Centres. Also, in addition to adequate staffing, financial assistance from an outside donor agency is needed for the sustainability of overall LAP Project administration. In conclusion, the Project meets the criterion of Bracht et al. (Bracht et al., 1984) for sustainability, i.e. it continues to meet the needs of its communities. However, at the present time, it cannot do this beyond the time of donor agency involvement, a second criterion named by Brinkerhoff and Goldsmith (Brinkerhoff and Goldsmith, 1992).

The above study appears to have some important implications for the sustainability of voluntary community health services in similar situations in the developing world.

(1) The vital role of the VHC and community leaders in assuming ownership of community health services.
(2) The need for regular teaching and other follow-up support of VHWs and VHCs by referral centre staff.

(3) A sound philosophy of community self-reliance on the part of project leadership.

(4) The real possibility of continuing need for outside donor agency financial support for overall project administration in countries experiencing economic decline.

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