

Child Survival IX

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Nepal

Final Evaluation



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LIST OF ACRONYMS

ADRA	Adventist Development and Relief Agency
AIDS	Acquired Immune Deficiency Syndrome, an infection caused by HIV
ALRI	Acute Lower Respiratory tract Infection - see ARI
ARI	Acute Respiratory Infection; serious ARI usually means pneumonia in this context, but ARI can also mean the common cold. To distinguish serious from trivial, physicians often now talk of ALRI.
Aus Aid	Australian government bilateral aid agency
BCG	Bacillus Calmette-Guerin, the antigen used to confer some immunity to tuberculosis; immunization leaves a permanent scar
CHV	Community health volunteer
<i>dhami</i>	one of several Nepali names given to a Traditional Healer
DIP	Detailed Implementation Plan
DHO	District Health Officer/Office
FCHV	Female community health volunteer
FP	Family planning (implies use of a modern method of contraception)
FPAN	The Family Planning Association of Nepal, a longestablished national non-government organisation which is supplied by MoH with contraceptives.
HIV	Human Immune Deficiency virus, the pathogen causing AIDS
INGO	International non-government organisation
IUCD	Intra-uterine contraceptive device or 'coil'
I v	intravenous (fluids to correct dehydration by clinical workers)
<i>Jeevan Jai</i>	ORT packets available in Nepal; literally water of life.

<i>jhañkri</i>	One of several Nepali names given to a Traditional Healer
MC	Maternal care, or safe motherhood
MCH	Maternal and Child Health
MoH	Ministry of Health of His Majesty's Government of Nepal
NACFP	Nepal-Australia Community Forestry Project
ORT	Oral rehydration therapy; in packet form <i>this</i> is called <i>Jeevan Jal</i> locally
PHC	Primary health care
TB	Tuberculosis
TBA	Traditional birth attendant
TH	Traditional Healer; also called <i>jhañkri</i> or <i>dhumi</i>
TT	Tetanus toxoid immunization
VDC	Village Development Committee comprising of nine voluntary ward members/representatives, one chairman, one vicechairman and a paid secretary
VHW	Village Health Worker, a government employee
VSC	Voluntary Surgical Contraception or sterilisation.

EXECUTIVE SUMMARY

USAID decided to fund a Child Survival (CS) IX implemented by ADRA Nepal beginning in October 1993. The work was completed at the end of September 1996. This report summarises the project's accomplishments during this time. The project was based in the small town of Banepa and served this municipality and the inhabitants of 20 of the 93 Village Development Committees (VDCs) in the District of Kavreplanchok or Kavre in the Central Region of the Kingdom of Nepal. The main road up to the Tibetan frontier runs through Banepa, Dhulikhel and villages in the project area; with roads come employment opportunities and easier access to medical help, but also perhaps an increased risk of HIV transmission.

The district is varied with most people living at altitudes at between about 2000 and 7000 feet. The dominant racial group are Nepali-speaking high caste Hindu Brahmins and Chhetris and second most numerous are Tamangs. Access to many parts of the district is difficult. The greatest cause of childhood deaths is acute respiratory infections (ARI) and formerly diarrhoea was also a huge problem and a frequent killer. Lately though, diarrhoea seems to have become much less common. The reasons for this are uncertain but various health education schemes (including ADRA's) are likely to have made a contribution. Certainly many mothers have now made the link between good hygiene and diarrhoea transmission. Infant deaths identified during the evaluation were almost entirely linked with inadequate birth spacing. Several deaths were still births in children conceived too soon after the last child. The maternal death rate is high in Nepal and has been high in Kavre. Reasons for this are a combination of ill health before conception (anaemia is prevalent), absent antenatal care, distant obstetric services, and inadequate birth spacing. One of the seven maternal deaths reported to the DHO was a woman producing her eighth child; after the sixth child maternal risk factors rocket and it is possible this woman's life would have been saved by family planning. Poor maternal health and inadequate birth spacing adversely affect child survival in older children too, and this area of need had been wisely highlighted by the target community during the planning of this project.

Baseline, mid-term and final 30-cluster surveys were made on the health knowledge and practices of 240 rural women with children under the age of two years. Survey results were available during the evaluation. Six people were involved in the evaluation, three from the MoH, one from ADRA Nepal, one from ADRA International and an external evaluator who was the team leader. The evaluation team used focused group discussions with village women as their main tool to corroborate or challenge findings from the 30-cluster surveys. Data was also available from MoH sources.

In order to address the major public health issues affecting child survival in the CS IX project area, ADRA, in close collaboration with the Ministry of Health (MoH), directed efforts towards getting health education to rural mothers. The messages promoted centred around:

- 1) recognising serious ARI or pneumonia and knowing what treatment is appropriate
- 2) promotion of home treatment of diarrhoea with appropriate rehydration solutions and continued breast feeding
- 3) education about basic nutritional principles especially as it relates to rehabilitation after a diarrhoeal illness, but also promotion of super-flour porridge and vitamin A rich foods
- 4) promotion of immunization of infants and pregnant mothers
- 5) education about the value of family planning (FP), birth spacing and limiting family size and provision of family planning services including male and female sterilisations (**VSC**) and Norplant insertion in the Banepa centre operating rooms, and in mobile clinics.
- 6) working with the MoH to provide other temporary contraceptives
- 7) communication about HIV and AIDS, its incurability and how it is transmitted
- 8) literacy training with health education messages taught along with the basic literacy curriculum.

This short list does not do justice to the many ways these problem areas were addressed and does not cover the many effective interventions undertaken to achieve improved health.

Firstly a cadre of new Female Community Health Volunteers (**FCHV**) were trained and a system set up so that all FCHVs (including those previously trained by MoH) underwent refresher training every six months; each FCHV was provided with a pictorial health manual and a first aid kit bag. Paracetamol (Cetamol) tablets, *Jeevan Jal* (packets of oral rehydration salts), bandages and antiseptic were provided free initially and it was intended that the FCHV should sell these items so that she could replenish her first aid kit next time she visited the health post. One FCHV was thus set up in each ward so that in each VDC nine FCHVs were working. In addition to these volunteers one Traditional Birth Attendant (TBA) was selected **from** each ward and trained in safe delivery techniques and each was provided with 10 safe delivery kits; these are to be sold for Rs 15/- each and they can be replenished for Rs 12/- so that the TBA should make a slight profit. A lesser number of Traditional Healers (THs) were given three days training to enhance their knowledge and encourage them to refer ill children to health posts and also reinforce the other health messages being promoted by **ADRA** and MoH.

A literacy programme was established using the government curriculum, but adding to it key child survival messages which were almost identical to the FCHV syllabus. As this part of the

programme was being successfully implemented, a collaboration began with the Nepal-Australia Community Forestry Project (NACFP); the curriculum was expanded to include community forestry and conservation messages. This literacy programme stimulated a huge amount of interest from participants, would-be participants, and outside agencies. There is a large demand that both **ADRA** and NACFP continue in this worthwhile area. This intervention effectively got health education to several groups of women who might otherwise have been marginalised from other health education activities, and encouraged women to become more articulate and assertive.

In all women we interviewed in Kavre District, the level of health **knowledge** was high and impressive. There was exceptionally good understanding of the need for family planning: several women said that there just was not enough land to have big families any more. Nepali women have probably long appreciated the link between child survival and birth spacing, but the programme has clearly built on this wisdom, and provided facilities to meet women's desire for family planning. Women desiring help planning their families now have good access to temporary and permanent methods and for men condoms and vasectomy are available. There is a clear change in attitudes to family size and it no longer seems necessary to have a boy before going for sterilisation.

The only possible area that may not have been so successful is the promotion of super-flour porridge. Although very often mothers we met with underweight children knew about it and could recite the recipe, few were giving it. Given the continuing prevalence of malnutrition locally this is disappointing and an area which should be addressed in future work.

ADRA and the MoH have trained a strong cadre of health volunteers who will be a continuing resource even after **ADRA's** work is complete locally. These volunteers are putting pressure on VDCs and other responsible people to provide support and services. The VDCs have become more transparent with democracy and with their new community fund from the government of Rs 500,000/- per year, they have resources to do a great deal. With better informed villagers there is pressure from communities for them to do what the community want now. An especially exciting development (last week) was that one VDC organised and funded refresher training of their own **FCHVs**; they also paid for replenishing the FCHVs first aid kits. The VDC decided the refresher training was needed and then approached the District Health Office for trainers. The training week was a great success and has stimulated FCHVs in neighbouring villages to demand similar from their **VDCs**.

The results of the **30-cluster** surveys when compared to the targets set early in the project are rather discouraging: there were eleven passes against eight failures, and one questionable result. However these figures belie the good work done. There have been major improvements in public health in Kavre, and although not all this can be attributed to ADRA alone, the project has clearly made a significant contribution.

There is actually very little to criticise in this project, but communications with counterpart and other agencies with interests in parallel with **ADRA** could be better. Especially in the light of the fact that good progress has been made on this project, it is essential that experience and ideas are shared and disseminated quickly and efficiently. Health curricula need updating in the area of hand-washing practices, first aid for dog bites and snake bites. And information systems in ADRA Nepal and ADRA International need co-ordination, review and improvement. It was disappointing to realise that a criticism of the mid-term survey was not addressed and reoccurred in the **final** evaluation.

All in all though this is an impressive project which has achieved a significant contribution to child health in Kavre. **ADRA** Nepal and the DHO are to be congratulated.

EVALUATION

I. Introduction and Background

The Child Survival IX Project which was funded by USAID and implemented by ADRA Nepal began in October 1993 and will be completed at the end of September 1996. The project is based in the town of Banepa in the District of Kavreplanchok or Kavre which has an estimated population of around 350,000. The project serves perhaps one half of the total population of Kavre District: those living in 20 of the district's 93 Village Development Committees. The project target population inhabits about one third of the geographical area of the district.

The project was implemented as a joint venture, working closely with the Ministry of Health (MoH). By any measure health is poor locally, although the situation is slowly improving. The aims of the Child Survival IX Project were to enhance this improving trend and further reduce disease and death in children and their mothers locally; rural families with low incomes were identified as being in particular need. The Infant Mortality Rate for Kavre District was estimated as 65/1000 in 1991. Even after the considerable improvements brought about by the CS IX project interventions it was sobering to note that 24% of village children in the end line survey were experiencing some degree of malnutrition and were under-weight.

Most of the project activities aiming to reduce child and maternal morbidity and death were educational in nature, teaching mothers about the signs of serious illness, encouraging them to seek competent help when necessary, and discouraging harmful practices. Some efforts to strengthen existing health services were made to complement and support these educational and training activities.

Malaria prevalence in Kavre is higher than in any other district in Nepal so it is fortunate that so far the disease is a relatively mild form: only *Plasmodium vivax* appears to be present and this is unlikely to cause child or maternal deaths. There is a note about the malaria problem in the appendix.

II. Project Objectives

The Project Objectives as outlined in the Detailed Implementation Plan (DIP) and modified and expanded in the first Annual Report (dated October 1994) and the Mid-Term Evaluation Report (dated October 1995) are as follows:

Maternal Care and Family Planning

1. Increase the percentage of rural mothers who had at least one antenatal visit from 28 % to 50%.

2. **Increase** the number of pregnant mothers with cards receiving at least two TT doses before delivery from 50 % to 70%.

3. Increase the percentage of rural mothers who are assisted in delivery by a trained practitioner from 9% to 20% .

4. Increase the percentage of rural mothers who desire no more children in the next two years using a modern method of contraception from 15 % to 25 % .

Control of Diarrhoeal Disease and Nutrition

5. Increase the percentage of children with diarrhoea who are treated with ORT from 34% to 60 % .

6. Increase the percentage of rural infants and children receiving the same or more breastmilk during diarrhoeal episodes from 87 % to 95 % .

7. Increase the percentage of rural infants and children receiving the same or more fluids other than breastmilk during diarrhoeal episodes from 44 % to 70 % .

8. Increase the percentage of rural infants and children receiving the same or more food during and after diarrhoeal episodes from 29% to 50%.

Acute Lower Respiratory tract Infections (ALRI)

9. Increase the percentage of rural mothers of infants and children (< 24m) who sought medical treatment during episodes of ALRI from 52 % to 75 % .

10. Increase the number of FCHVs who know the two key symptoms of ALRI.

Literacy

11. Graduate 1125 mothers from basic literacy curriculum including key Child Survival intervention messages.

Immunization of children

12. To increase the number of fully immunized 12-23 month olds with cards who had received BCG, DPTx3, OPVx3 and measles from 16 % to 60 % .

13. Aim to increase **the** knowledge of immunization amongst FCHVs & **TBAs** from an unassessed baseline level to 95 % .

14. To increase the knowledge of the immunization schedule amongst mothers from an estimated 63 % to 90%.

Vitamin A knowledge

15. To increase mothers' knowledge of vitamin A-containing food from 22% to 50%.

16. To increase the knowledge of vitamin A amongst FCHVs from an unassessed baseline level to 90%.

17. To increase knowledge of vitamin A amongst participants of the literacy classes from an unassessed baseline level to 75 % .

HIV/AIDS knowledge

18. Increase the knowledge of HIV/AIDS amongst mothers from an estimated 19 % to 60%.

19. To increase knowledge of HIV and AIDS amongst FCHVs, **TBAs** and Traditional Healers (THs) from an unassessed baseline level to 90%.

20. To increase knowledge of HIV and AIDS amongst participants of the literacy classes from an unassessed baseline level to 80%.

III. Project Implementation

Before the grant was awarded **ADRA** Nepal consulted the target community and together with them and local MoH staff identified health needs and drafted possible areas of intervention. Problem areas identified were principally in the area of maternal care and family planning to allow women to adequately space the births of their children. Village **knowledge** is that if babies come too close and too quickly, there is increased risk of childhood deaths as well as it being a huge burden on already over-worked women. MoH has in place a reasonably effective and efficient system for **immunization** and it was decided that it would be appropriate for ADRA to support this through health education.

ADRA advisers who were less aware of the local needs identified different priority areas and suggested that the emphasis of interventions should be pushed away from maternal care and family planning and more towards implementing an immunization programme. Given **MoH's** enthusiasm and effective activity in this area this seemed inappropriate. Nepali staff working for **ADRA** are competent and it would seem more appropriate to support their impressive efforts rather than undermine a very commendable *bottom up' approach.

The **USAID** grant was awarded and work began on the CS IX project at the beginning of October 1993 following the Detailed Implementation Plan (DIP) dated April 1994; the main

thrust of the project then was Maternal Care and Family Planning, Control of Diarrhoeal Disease and Acute Respiratory Infection. This plan was reviewed and further components were added as detailed in the first Annual Report dated 31 October 1994. These components included health education efforts focused on immunization, nutrition, vitamin A and AIDS prevention. Methods of delivering this important information evolved over the course of the project and included a large training effort, training and orientating people at all levels from mothers, literacy students, mothers groups, health volunteers, traditional healers and government health staff. All work was carried out in collaboration with the MoH, and where possible involved other **NGOs**. The literacy programme was enhanced by input from the Nepal-Australia Forestry Project, and other activities coordinated with other interested agencies; several health promotion activities were run with Red Cross for example.

During the course of this three years other supporting facilities were developed: a new headquarters was built including the three operating rooms and laboratories and two mobile clinic vehicles were built in Banepa and equipped for antenatal check-ups, family planning activities and dental out-reach work.

IV. Purpose of the Evaluation

The main rationale behind this evaluation was to examine how effective and how sustainable the project has been and also to document the lessons learned during the implementation. Did the Child Survival activities really meet the basic health needs of **the** target communities as *they* were outlined *in the goals and objectives* of the *project*? Will the benefits of the project be sustained and will efforts continue after the project has closed? And what was learned, what positive or negative effects did the project have and can any lessons be used to strengthen future Child Survival projects in Nepal and other countries? Finally the evaluation is a fine opportunity to document and disseminate good experience and enhance future development work everywhere.

V. Evaluation Methodology

The team leader was briefed by the Project Manager and reviewed the DIP (appendices II-V were missing from the copy provided), both Annual Reports, the Mid-Term Evaluation Report, the curricula for MoH training of staff and volunteers and the curricula used for ADRA staff training; an English summary of the health elements of the literacy syllabus is provided as an appendix to this report since this was only available in Nepali.

The Final Evaluation Survey had been completed just before the evaluation team gathered and an early draft provided to the team leader; the survey methods and results are included with the appendices. The ADRA project staff were helpful and quick to answer all questions and queries and provided all materials promptly, although some of the computer files were a little **difficult** to find. This problem was partially due to the main HIS person being away on a

training course. This gave us some problems in interpreting inconsistencies in the evaluation survey report.

The evaluation team was able to focus on areas which were not well covered by the Final Evaluation Survey, or which the survey had identified as problem areas. We considered, for example, the knowledge levels of village volunteers, Village Development Committee members, etc. and also looked in more detail into the reasons why some targets had not been met. We chose communities being served by each of the four Health Posts at the **centre** of the project's activities and travelled to seven different and contrasting directions and regions during the course of the seven days of village visits. We were careful to interview the major ethnic groups in the region, spending most time meeting high caste, Nepali-speaking Brahmin and Chhetri women (who comprise more than half of the local population), but also had discussions with Tamang communities (the second most numerous ethnic group), Newars (third) and Danuwars (fourth). Members of other ethnic groups who are less numerous locally were also present at many of the Mothers' Group meetings and Focused Group Discussions which we organised. The appendices contain census figures for the district by mother tongue and also a note explaining caste hierarchy.

Generally we ran focused group discussions with the mothers, and on one occasion with a men only group, and subsequently interviewed **FCHWs**, trained **TBAs**, traditional healers (*dhami/jhañkri*) who had received training from **ADRA**, MCH workers, and occasionally **VHWs**. We interviewed clinical staff in three of the four health posts, access to the fourth being denied us by heavy rain, a terrible road and difficult conditions. We visited communities up to about 45 minutes walk from the nearest motorable track, and drove up to about an hour from Banepa. The condition of the motorable roads were universally appalling and necessitated much use of four-wheel drive; we needed to push the vehicle out of the mud on several occasions. Field trips emphasised to the Evaluation Team that access is a big problem, and one limitation to families taking up health services, and to health professionals and volunteers reaching their clients.

In addition to meetings with Mothers' Groups we visited households of women who had attended literacy classes and also interviewed neighbours and households of people who might not have been active in the areas which interest ADRA. The evaluators were unable to attend any literacy training going on since classes had ceased by this time, however we were able to meet innumerable women who had attended literacy and post literacy classes run by both **ADRA** and the Nepal-Australia Forestry Project.

We ran one focused group discussion with a mothers' group living in the Banepa Municipality. In addition we visited the PHC clinic in Banepa (twice) and interviewed the staff there. Finally we met with key people involved with the project or with an interest in Child Survival activities, in the Ministry of Health, and other agencies. People interviewed and communities visited are listed in the appendices.

VI. Project Accomplishments

A. Comparison of objectives and accomplishments

Each target specified in the DIR, and additions suggested in the first Annual Report (dated October 1994), and in the Mid-Term Evaluation Report (dated October 1995) has been listed below, an indication given of whether the target was met or not and factors influencing the achievements discussed, It was not immediately apparent (either to the evaluation team leader nor to the end line survey author) which targets stood at the end of the project.

Survey results from the municipality were collected and are included in the appendix. However municipal results are not discussed in detail here since these were not in the targets set in the DIR. Generally the results in Banepa town were even better than in the rural districts.

B. Maternal Care and Family Planning

1. **Increase the percentage of rural mothers who had at least one antenatal visit from 28% to 50%. Result 50.8% of rural women had undergone at least one antenatal visit. Target met.**

This is self-reported data. MoH statistics say that of those women receiving antenatal care the average number of visits is 1.95.

The TBA and FCHV programme was particularly effective in many areas including stimulating women to seek antenatal care. Involving the VDC, and community was crucial; although the **VHWs'** work should include encouraging women to seek antenatal care, most are rather inactive. Details of the way these various community groups were motivated through various training and orientation programmes has been documented and discussed in earlier reports.

A trained TBA in Chalal told us that she had diagnosed a prolapsed umbilical cord in a woman in labour. This is a highly dangerous complication of **labour** which can easily result in the death of the baby. The TBA arranged the evacuation of the labouring mother to hospital along a track only just suitable for four-wheel drive **vehicles**, a rough journey of more than two hours. Mother and baby are now **fine** and back in Chalal. This is a nice illustration of a high risk pregnancy being successfully referred, despite difficulties of communication and access.

MoH District statistics have identified only seven maternal deaths: two from postpartum haemorrhage, one obstructed labour in a woman producing her eighth child, one from probable puerperal sepsis, one probable embolism and two incidental deaths due to a lightning strike and diarrhoea. After the sixth child, maternal risk factor start to increase dramatically. What prevented this women accepting **family** planning and avoiding this untimely end for her and the baby?

2. **Increase the number of pregnant mothers with cards receiving at least two TT doses before delivery from 50% to 70%. Result: amongst rural women 12.1% were vaccinated twice against tetanus during their pregnancy. The baseline level was 19%. Failed target.**

The MoH statistics for first **TT** immunization are 12,556 or 86% of the target population of all pregnant women in Kavre District, and 10,010 second **TT immunizations** were given or 71% of the target population. Although according to the End line Survey the target appears not to have been achieved, this seems to have been more a problem of card supply rather than poor actual coverage. Our field surveys implied that TT coverage was fairly good, if patchy. Knowledge and motivation seemed good on the whole although there were a couple of communities where uptake was poor. Where motivation was lower, mothers seem more interested in **immunising** their infants than themselves. It is hard to say whether this reflects the difficulties of a pregnant woman getting to a vaccination clinic or whether it reflects a lack of good understanding of the purpose of 'IT it is probably a mixture of both. TT coverage nationally is substantially lower (22% in 1992) than infant immunization coverage (in 1992 BCG **82%**, DPT3 Polio3 73 % , measles 67%).

According to the final survey, **TT** coverage appears to have fallen since the intervention, yet MoH statistics suggest that coverage is reasonably good. The **30** cluster sample then implies a coverage even lower than the district average which is most unlikely. Identification of the actual cluster communities surveyed might help identify the reasons for this discrepancy. All health indicators are better in areas where ADRA has been active and the apparently poor achievement is - at least in part - a reflection of the problem earlier in the year when vaccination card supplies ran out. Supplies of patient-held immunization record cards were unavailable (from the Ministry of Health) for six months so immunization coverage according to cards appears perhaps 25 % lower than was actually achieved. According to the end line survey 50% had never been given a card and 34% had lost it.

Further circumstantial evidence of good TT coverage is that there has been only one case of neonatal tetanus this year (compared to three the previous year). We also **enquired** about child deaths during our village visits and found no cases suggestive of neonatal tetanus either.

The vaccine supply by MoH has been exceptionally good in Kavre, but a further constraint which must also be borne in mind is that His Majesty's Government would be unable to **immunise** all eligible women if they all came forward; supplies of vaccine are limited nationally, and amounts of vaccine are budgeted for normal demand. In a couple of villages, the entire literacy class were motivated to go for TT immunization after hearing about the dangers of tetanus in their class. The VHW had insufficient vaccine for them all, so some were immunized that day and the rest on the next monthly immunization session.

3. **Increase the percentage of rural mothers who are assisted in delivery by a trained practitioner from 9% to 20%. Result: 25% delivered by trained professional or trained TBA. Target met.**

MoH figures on this are incomplete but it seems that most trained **TBA**s are active and deliver perhaps five babies a year. We met one TBA who had delivered 15 babies. Safe Delivery Kits are held by the trained TBA and in most cases are being successfully resold. **ADRA** have bought 2500 kits so far.

Comment: very good progress is apparent in this area.

4. **Increase the percentage (from 15% to 25%) of rural mothers who desire no more children in the next two years and who are using a modern method of contraception. Result: 36% - target met.**

A surprising number of women said that there was no longer enough land to support large families and villagers have a good understanding of the need for family planning. Village common knowledge is that birth spacing is sensible because it improves child survival and reduces the work load on already over-worked mothers. The evaluators heard of several infant deaths where inadequate birth spacing seemed to be the key factor. One poor woman had a still birth less than nine months after the birth of her last child; her mother-in-law was against contraception. Details of these cases are in the field trip notes in the appendices.

Villagers are also aware that the services for family planning and voluntary surgical contraception/sterilisation (VSC) are now readily available in the **ADRA** centre and other MoH facilities. In addition FPAN has facilities for dispensing temporary FP in weekly clinics in 12 **VDC**s and refers clients for sterilisation and Norplant.

Family planning efforts are coordinated with the MoH and credit for the successful delivery of effective contraceptive services goes both to **ADRA** and MoH with some referrals from FPAN too.

Numbers of permanent and temporary F'P services dispensed or administered:

Services provided by ADRA PHC clinic and the mobile clinics. The three operating rooms opened in May 1994.

October 1993 - August 1996 (further services were provided in September but statistics were incomplete at the time of writing)

Sterilisations:

Vasectomies	605
Minilap	552
Laparoscopy	492

Nor-plant	1819
IUCD	147
Depo	1336 women, who receive three-monthly repeat injections
Pills	159

In addition condoms are distributed free and in unlimited numbers. The rationale is that if condoms become commonplace, there will be less shyness about using them, obtaining them, etc.

C. Control of Diarrhoeal Disease and Nutrition

5. **Increase the percentage of children with diarrhoea who are given ORT from 34% to 60%. Result was that only 49% of women gave ORT to children with diarrhoea. Failed to meet target and a fairly poor improvement since the baseline survey in rural areas.**

Constraints include problems with the **definition** of diarrhoea; there is confusion about whether the interviewers were asking about normal or slightly enhanced gastro-colic reflex, loose stools or true dehydrating diarrhoeal disease. Interviewers defined diarrhoea as passing three or more loose stools in 24 hours but mothers feel that it is not necessary to give ORT unless the child seems dehydrated or ill. Mothers give other fluid supplements including breastmilk. Knowledge is high and women seem to understand well when ORT is needed. An additional factor is that diarrhoea prevalence has fallen dramatically in the area and mothers are no longer commonly seeing severe diarrhoea, and there is less need to use ORT. This may be a result of health education. During the field trips we heard of no deaths due to diarrhoea nor any recent cases of severe diarrhoea. MoH **office** has not seen any epidemic of diarrhoea in the last two years which has needed outside help, although previously teams needed to **be** sent out to manage outbreaks and there used to be many deaths. During outbreaks in the past, the Scheer Memorial Hospital used to set up tents because there were **insufficient** beds in the hospital to cope with all the diarrhoea cases in Kavre District.

The District Health Office distributed 33,145 packets of *Jeevan Jal* (ORT packets) in the last year. Additional supplies are available from medical shops. Villagers usually pay three *rupees* for *their Jeevan Jal* - the **FCHVs** have to sell it, although if villagers go to a health post they can get it free. This sometimes causes a bit of bad feeling. Villagers sometimes accuse FCHV of selling *Jeevan Jal* when they think the FCHV has received it from the government for nothing.

Home solutions, especially rice-based ORT, seem to be well known in the villages but many women say that they prefer using *Jeevan Jal* since this is quicker and easier to use. Many women still remember the old salt-sugar-water (*nun-chini-pani*) campaigns; most could give this recipe accurately enough too.

6. **Increase the percentage of rural infants and children receiving the same or more breastmilk during diarrhoeal episodes from 87% to 95%. Result: 93% of rural women said that they gave the same amount or more breastmilk during diarrhoea episodes. The target was not quite met but there was a considerable improvement on the baseline practice.**

All the women we asked **in** the community said that they continued to give breast milk during diarrhoea; they also continue to give solid food. The former traditional idea that during diarrhoea fluids should be restricted has almost disappeared due to national and local health education efforts. In the endline survey 2% of mothers said they withheld fluids when their child had diarrhoea.

7. **Increase the percentage of rural infants and children receiving the same or more fluids other than breastmilk during diarrhoeal episodes from 44% (FIGURE INCORRECT in EOL survey report) to 70%. Result: 84% Target met.**
8. **Increase the percentage of rural infants and children receiving the same or more food during and after diarrhoeal episodes from 29% (FIGURES INCORRECT in EOL survey report) to 50%. Result: 39% Target not met.**

The number of mothers interviewed about practices during diarrhoea was small (it was only 69) and may not be representative. Especially given the recent dramatic fall in diarrhoea prevalence in the Kavre villages, the mothers' interest in this area is no longer very high perhaps. Question 27 was not well understood by the mothers; villagers often have problems relating information regarding past events or 'what if.. .' kinds of questions or situations. A similar problem was encountered with question 11 of the survey.

All mothers whom we interviewed during our field trips were sure that ill children needed more food and they made every effort to encourage children to eat. If their appetite is poor they know to encourage the child to eat more and make up the loss.

D. Acute Lower Respiratory tract Infections, ALRI

9. **Increase the percentage of rural mothers of infants and children (< 24m) who sought medical treatment during episodes of ALRI from 52% (FIGURE INCORRECT in EOL survey) to 75%. Result: HP 71% - target not met.**

Pharmacies are assumed here to be sources of competent medical treatment. Many mothers seek advice from multiple sources; most will approach the traditional healer first and then seek a source of allopathic medicines if the disease seems severe.

10. Increase the number of FCHVs who know the two key symptoms of ALRL

Result: All the village volunteers we met knew very well about rapid breathing and indrawing being signs of severe ARI or pneumonia. This information has been effectively passed on to the mothers.

E. Literacy

11. Graduate 1125 mothers from basic literacy curriculum including key Child Survival intervention messages. Result: 1423 graduates. The target was met, indeed this number is well in excess of the target.

Actual numbers of women who graduated from the basic literacy classes:

year	no. of women
1993-4	188
1994-5	571
1995-6	<u>664</u>
	1423 women

In addition to these basic literacy class graduates, a further 570 women graduated from post-literacy classes in the year 1995-6.

There are now many, many requests from village women for more classes.

F. Immunization of children

Note that MoH does not have the resources to immunise older children, although they get 'leftovers' of unused vaccine at the end of immunization sessions.

12. To increase the number of children aged 12-23 months with cards who had been fully immunized with BCG, DPTx3, OPVx3 and measles from 16% to 60%. Baseline 16% Endline 33%. Failed target

This seems a poor result and the target of 60% with complete cards was not achieved, but is an improvement on baseline so good progress is being made. There is a methodological problem here and immunization rates are higher; non-availability of immunization record **cards makes** it appear that coverage is less than it really is. It would be reasonable to divide this endline result by 0.74 to account for

- (a) children who never received a card because they had not been printed,
- (b) those who had lost the card because its importance had not been sufficiently emphasised.

Circumstantial evidence for good childhood immunization coverage with *effective antigens* (via a good cold chain) is that there has been no measles epidemic for the last three years and there have been *no* paralytic polio cases in young children.

13. Aim to increase the knowledge of immunization amongst FCHVs & TBAs from an unassessed baseline level to 95%.

All community volunteers that we met, whether they were FCHVs or trained TBAs or trained Traditional Healers, had good knowledge of immunization rationale, target diseases and schedules. Training appeared highly effective. The only volunteers who were relatively poor in their knowledge were those who had first been trained years before, and it seemed that two days refresher training every six months was insufficient for them. Perhaps a longer refresher is needed after, say, five years. This could also be an opportunity to push out inactive volunteers. An action research exercise on this area was conducted three months ago and the results are in the Banepa office.

14. To increase the knowledge of the immunization schedule amongst mothers from an estimated 63% to 90%. Failed target.

In the endline 30 cluster survey of 240 women, 87% of mothers could correctly state the age children should have measles immunization. In addition, all the women of child-bearing age whom we met knew that five visits for immunizations were necessary for children under one year of age. The knowledge about exactly which vaccines are given when was not quite as well known, but it seemed to me the **knowledge** was good enough and there was certainly good motivation to go for immunization. Nearly all women could recite most of the immunisable diseases.

The number of children 12 - 23 months who had received DPT1 rose from a baseline coverage of 21% to 33 % at the end of the project, although actual immunization coverage was almost certainly considerably higher. There were problems with supplies of immunization cards. In the endline survey of 240 women, 89% said that their child had received some immunization, but only 53 % had an immunization record card; 25 % had lost it and 23% had never been given one.

The number of children 12 - 23 months who had received OPV3 rose from 18 % (baseline) to a final documented coverage of 34%.

The documented coverage seems unrealistically low. MoH statistics show that coverage was good: in the catchment served by Panchkhal Health Post achieved 77% ; for Nala Health Post 68 % ; for Dapcha 82 % and for Khopasi (who attract clients from outside their official catchment area) 108 % .

MoH know of *no* polio cases in last two years in **Kavre**; this does not, of course prove that there is no polio in the district (for every symptomatic sufferer there are many more sub-clinical cases), but it does imply some measure of success.

Immunization cards were not available (from MoH) for six months which has led to an apparently low immunization coverage. **Finally ADRA** decided to organise and pay for the printing of more cards with the addition of one small improvement to government card. This new card bore the **ADRA** insignia (as well as that of the MoH) and it also had a note reminding mothers to keep the card for five years.

The percentage of children between the ages of 12 - 23 months who had received measles immunization rose from 18 % to 30% by the end of the project. MoH statistics suggest that measles coverage was good: the Panchkhal Health Post achieved 82 % ; Nala Health Post 69 % ; Dapcha 85 % and for Khopasi who attract clients from outside their official catchment area 100%.

MoH report that the last epidemic of measles was March 1993, which implies fair cover perhaps. MoH policy is *not* to immunise children over the age of three years against measles (unless vaccine is left at the end of an immunization session which would otherwise be wasted) and so even if there is good coverage of the target population, older children will be susceptible and there could be an outbreak. Are epidemiological advisors happy with this target or is MoH constrained by vaccine supplies?

The overall drop out between the first (**BCG**) and last (measles) **immunizations** fell from 15 % to 8 % which is a good improvement in performance.

G. **Vitamin A knowledge**

15. To increase mothers' knowledge of vitamin A-containing food from 22% to 50%. Mothers who knew at least one food containing vitamin A in the baseline survey were 21% and endline 53%. Target achieved.

16. To increase the knowledge of vitamin A amongst FCHVs from an unassessed baseline level to 90%.

All volunteers we interviewed knew the basic facts about vitamin **A**, but it was not possible to meet all volunteers in the project area. See also next paragraph.

17. To increase knowledge of vitamin A amongst participants of the literacy classes from an unassessed baseline level to 75%

Knowledge of what foods protect against what disease was good in all literacy attenders we interviewed, but it seems likely that the concept of vitamin A is too difficult or

abstract for uneducated Nepali women. Most women knew that spinach, mangoes, carrots, tomatoes, etc. help prevent night-blindness, but were very uncertain about vitamin A - perhaps especially since there is no Nepali word for vitamin and the roman A character is also foreign. The practical aspects of information relating to vitamin A were well understood however. The evaluation team leader was uncertain whether to interpret this as a target achieve or not! Pedants might call this a failure.

H. HIV and AIDS knowledge

18. Increase the knowledge of HIV/AIDS amongst mothers from an estimated 19% to 60%

The number of mothers who knew at least one transmission route for HIV rose from 11% (baseline) to 29% (endline survey) and the number of mothers who had heard of AIDS rose from 19% (baseline) and to 58% by the end of the **project**. **There** was an improvement in knowledge but the target was not met.

19. To increase knowledge of HIV and AIDS amongst FCHVs, TBAs and THs from an unassessed baseline level to 90%. Knowledge on AIDS was good amongst all volunteers we met.

20. To increase knowledge of HIV and AIDS amongst participants of the literacy classes from an unassessed baseline level to 80%

All the women we met who had attended literacy classes had heard of the 'new disease' which they could name as AIDS. All but one woman was sure that it was incurable and most could recite how it could and could not be transmitted. During our visit (on 11th September) to the literacy graduates amongst the Danuwar community on the outskirts of **Panchkhal** there was much embarrassment when we mentioned AIDS and they were most reluctant to say anything about it; but from their reaction it was clear that one major transmission route was at the front of their minds! Accounts of all the field trips are included with the appendices of this report.

I. Unintended positive effects of ADRA and CS IX project activities

1. **ADRA** Nepal and Nepal-Australia Community Forestry Project decided to work together in developing the literacy programme and a complete package of Literacy-Health-Forestry materials was developed and stimulated a great deal of interest (including articles in the **Kathmandu** newspapers - an example is appended) and a very low drop-out rate from classes. Costs were shared. This may have influenced AusAID to contribute to the mobile clinics. Further, AusAID are keen to continue their literacy work and are considering using **ADRA's** health education materials in their work in Sindhupalchok District.

2. Training has been organised for other agencies, both for government staff and for NGOs.
3. Strengthening the **VDCs**. Some are now even wanting to take over refresher-training of FCHVs.

ADRA's multi-faceted approach (particularly in running an efficient contraceptive service has contributed to other successes in **ADRA's** work and advocacy of **ADRA** as a good organisation. These areas are worth mentioning, although they are perhaps not all strictly within the CS IX project.

4. Sterilisation (WC) of people outside the project area. For example during the first year of the project 127 women were sterilised and 96 men came from outside the district for their vasectomy.
5. Clients have come from Baktapur, Kathmandu and even **Budhanilkantha** for sterilisation. Absence of post sterilisation wound infection is one reason why ADRA is so very popular.
6. FP clinic attenders (the clients themselves) give health education to their friends and neighbours about contraception and advocate for **ADRA** within and without the project area. Satisfied women particularly publicise Nor-plant and motivate neighbours to go to have Nor-plant inserted in Banepa.
7. Local perceptions are that it is unwise to go for VSC during the monsoon months since this is a time when post-operative wound infections are common; **ADRA's** record of no post-operative wound infections encourage people to attend all through the year.
8. ADRA clinical staff have solved many W-related problems coming from elsewhere.
9. Idea of token family planning is being tested, encouraging FP clients to refer new clients. This is already happening informally between neighbours and relatives even outside Kavre.

J. Unintended negative effects of CS IX project activities

There appeared to be none.

VII. Project Expenditure

(To be added by ADRA)

VIII. Lessons Learned

Two high level Ministry of Health officers independently criticised a failing of most NGOs who are working in Nepal. They complained that they work independent of government efforts, promoting different messages and approaches, with more resources and so undermine government efforts. ADRA's CS IX project is an exception and well appreciated because it has worked with MoH. Although this means perhaps that the project was slow getting underway, it achieved a great deal and efforts will be sustained. The most important lesson learned was probably how useful it was **to** involve the VDCs in the community activities and out of this is emerging a new and exciting development : that of the VDCs taking over support of the community health volunteers. If these influential women can be supported by their community, the VDCs and the MoH they will feel valued and are more likely to continue their endeavours.

Co-ordination between a forestry project and a health project is perhaps unusual in promoting literacy, but incorporating health messages, forest management and conservation information with the basic literacy curriculum proved very successful and popular; the diversity of teaching held the participants interest.

The strength of this CS IX project was in its diversity of approaches and target groups (orientations were held for the director of the National Health Training Centre and for illiterate village women), but although the approaches and targets were diverse the messages were kept simple and absorbable. And they were absorbed.

IX. Sustainability

A. Community Participation

One of the biggest changes to affect community mobilisation which will in mm affect child survival activities in the **villages** is the new responsibilities given to the VDCs. Eighteen months ago the government implemented a new policy of giving a grant to VDCs to be spent on a range of community services. About a year ago the grant was increased to Rs 500,000 5% of which has to be spent on health. This fund can be used to supply and support FCHVs, to strengthen sub-health posts and begin revolving drug funds and in many other ways. Many VDCs, particularly since their re-orientation by ADRA, realise their responsibilities to support FCHVs and so these volunteers are becoming more effective, better recognised and appreciated, and more active. This is the kind of support they need and will help them continue to work even if the MoH does not have the resources to encourage and fully support them.

The VDCs need help with ideas to allow them to spend their **Rs 500,000/-** grant wisely (some are unsure how to spend it at all) and the literacy programme is one area which they also might take on. Even if this does not happen it must be recognised just what an influence the literacy training already has had. Women have become empowered to speak at community meetings

and have sufficient numeracy skills to realise when community groups charged with managing community funds are cheating them (there was at least one such case identified and dealt with by a women's group). A further spin-off from the literacy training is that mothers now appreciate better the value of education and so more children are being sent to school. The next generation are therefore benefiting.

On the 24 September 1996 Dr Marasini, as DHO, attended the first health refresher training in Kavre District which had been initiated and paid for by a VDC. The village was Deobhumir Balawa, near Panchkhal and a five-day refresher training had been organised for the local FCHVs. In addition to the training the VDC bought new supplies of paracetamol, *Jeevan Jal*, bandages, iodine, etc. to replenish the FCHVs first aid kit. The VDC has already organised and paid for the building of a new sub-health post and are now asking the Minister of Health to inaugurate this. One encouraging spin-off from the training session is that FCHVs from neighbouring VDCs are now asking their VDC members to **organise** similar training events and also help with their medical kits. This is a doubly exciting development and suggests that FCHVs will be increasingly supported by the VDCs as well as by the MoH.

One FCI-IV was selected from each VDC by ADRA, and temporarily promoted to be paid as a part time counsellor (twelve days a month at Rs 60/- per day) responsible for supervising eight other FCHVs. When the project is over they will return to volunteer status. However the leadership skills that they have acquired during their time as counsellors has been noticeably outstanding and these women will be a continuing and powerful influence in their communities. It may be that many VDCs will continue to pay their modest wages: they certainly could afford Rs 720/- per month from their funds.

The health quiz contests have been great motivators for villagers, volunteers and VHWs and it is hoped that these will continue.

The CS IX project trained Traditional Healers, TBAs and FCHV who are now making intelligent referrals to the health posts and are informing and motivating the community to support and use these facilities. This cadre of well trained volunteers with good basic health knowledge are a resource which lives on in the villages.

B. NGOs

ADRA will continue to be active in the Kavre District, indeed it has already expanded its geographical range in the new USAID-funded WHIN project which started in July 1994 and will run for at least another three years. This project covers 52 of the 93 VDCs in Kavre District and is continuing the CS work. Other NGOs which are active in the district are the Family Planning Association of Nepal, Red Cross, Helen Keller International (although HKI are running down their local work), the Social Support Service Group (a Mahadevstan village-based NGO), ESCORT in Dhulikhel and the Women's Development Committee with whom ADRA co-ordinates regularly. In addition World Neighbours and several other INGOs are supporting local NGOs in family planning and AIDS education.

As well as **NGOs**, the Japanese (JICA) and the Nepal-Australia Forestry Project continue to be active locally. The Nepal-Australia Forestry Project is planning further literacy training including health messages; they also hope to expand into the area of drinking water supply, latrine building and some related health education.

C. Ability and Willingness of Counterpart Institutions to Sustain Activities

ADRA continues to work in the Kavre District, and this work has secure funding from a number of sources. Relations with the District Health **Office** are excellent and the present chief is active and exceptionally helpful. The present regional chief is also interested and supportive of **ADRAs** work and was very enthusiastic about what had been achieved so far. Both **officers** are keen to take over **ADRAs** activities as appropriate, within their resource constraints.

D. Sustainability Plan, Objectives, Steps Taken, and Outcomes

Some Goals

To support FCHVs in maintaining a complete first aid kit bag.

The newly trained and recently updated FCHVs in Kavre are increasingly recognised by their communities as **an** invaluable resource. Good support **from** the VDCs and the MoH is making them even more active. VDC orientation and training by ADRA and encouragement by the DHO have already stimulated some VDCs to start planning to increase support for their FCHVs.

To ensure that FCHVs receive regular refresher training

Such training has started to be funded and run by **VDCs**; the VDC covers the costs and MoH supplies the trainers. The National Health Training Centre is keen to continue to support such training activities. The WHIN project also continues in this area.

To ensure FCHVs receive continuing recognition of their voluntary efforts

Interviews with government health staff indicated that most were very appreciative of the up-grading and retraining of the various community volunteers. Several said co-ordination would be better if communications were better between **ADRA** and MoH staff, and more notice given of planned training or other activities.

ADRA organised some quiz contests between mothers groups of neighbouring villages which involved the **VHW** as well as all the volunteers. This was a popular event and more have been requested. Such activities are ideal for drawing the **VHWS** into the volunteers' spheres and encourage otherwise unenthusiastic government workers.

A fund has been set up for FCHVs and they can borrow money as required at minimal interest. This is one big benefit of working as a FCHV.

To support trained TBAs in maintaining their supplies of safe delivery kits

To ensure that trained TBAs receive regular refresher training

Both areas would be well covered by an enthusiastic VDC. The VDC funding scheme is in its infancy (it began only 18 months ago) but is developing superbly in many villages in Kavre. It is hard to say exactly how things will continue at present, but present signs are that this is an excellent and sustainable system. ADRA continues to support and encourage VDCs in this area through the WHIN project.

To support co-operation between MoH clinical staff and trained Traditional Healers.

A referral system for trained Traditional Healers has been investigated by ADRA. Five traditional healers were selected per VDC and given three days training in recognising dangerous symptoms as well as home treatment of diarrhoea, preventing diarrhoea transmission, plus family planning, AIDS and immunization. Each trained TH was given some large plastic coin-like tokens with a number identifying the TH. Whenever the TH identifies a patient who he feels should be seen at a health post or sub-health post, he sends the patient with the token so that the Health Assistant will realise that the TH is worried about the patient. We met one TH who sends patients with tokens to the sub-health post at Shankhupatichaur and the Health Assistant there found the system useful. ADRA has also used the system to check on the effectiveness of the idea as well as to motivate the THs. ADRA are looking at this.

To ensure that women and children seeking medical attention receive adequate care

ADRA has invested a huge amount in its PHC and FP centre at Banepa and plans are underway to begin FP training there under the umbrella of the National Health Training Centre. ADRA is confident that the clinic, FP services, operating facilities and training programmes will continue for many years to come and that if necessary funds will be found to support this work from ADRA. ADRA Germany and ADRA Japan have already supported work in Banepa. The present ADRA activities are supported by more than 10 major funders in addition to USAID; this diversity of funding is a strength. The government does not have the resources to take over employment of the Banepa PHC clinic staff.

Similarly the Adventist Scheer Memorial Hospital will continue. Outside funding is available as necessary and the hospital has been designated the District Hospital; six expatriate doctors are presently employed in Scheer. Kavre has been blessed with a series of good DHOs and the present chief is dynamic and committed. While such high calibre personnel are in post services will continue to improve. Government servants are frequently transferred, however, so it is impossible to be sure how things will continue.

To ensure that antibiotics, intravenous fluids and other essential drugs are accessible (both logistically and financially) to those seriously ill children and mothers who need them.

A revolving drug fund scheme is planned to be instituted soon. It is intended that the VDCs will run it and they will support supplies of medicines to the Health Posts and Sub-Health Posts. The government has suggested that each Health Post and Sub-Health Post has a support

committee to do this work and the chairman of the VDC will be a member of the support committee. This has the scope of being a very successful way of dealing with the problem of medicine supplies. All the signs are good at present.

To ensure the continuing provision of antenatal clinical services

Antenatal services both at community level and those provided by health professional are improving and will continue to improve under the present dynamic DHO. There is also good relatively easy road access to **Kathmandu** from much of the target area and a good service for high risk pregnancies.

To ensure the continuing provision of family planning services at ADRA Banepa and elsewhere

The MoH and **ADRA** are in close contact with all agencies promoting family planning. ADRA has become a referral centre for voluntary surgical contraception and as such is supported by other agencies.

To look at ways of expanding the literacy programme and identify resources to encourage the further development of the literacy and numeracy skills of women who have graduated from the literacy classes.

Unfortunately the present District Education Officer is very negative about non-formal education, and feels it is outside his scope to be involved. It is disappointing that he does not even feel it is his duty to co-ordinate activities.

However the Nepal-Australia Forestry Project is very keen to expand its literacy work and in exploring the idea of taking the health part of the curriculum developed by ADRA and use it not only in **Kavre** but also **in** Sindhupulchok. The WHIN project continues CS IX's work and it is likely that the VDCs will also become involved. Several ward members expressed enthusiasm for the programme and have thought of providing small libraries.

X. Recommendations to ADRA, Supplementary Issues and Questions

Since CS IX is completed a recommendations section may seem inappropriate, however ADRA continues and such suggestions should be useful locally.

In the early stages of this project, workshops were run and much effort expended to accommodate the ideas of the community and local health professionals in identifying the local health needs and planning the most effective interventions. This is a right and proper process. Such commendable 'bottom up' planning efforts should not be undermined by staff who do not know the local conditions and cultural considerations. Effective development work is flexible and consults the beneficiaries rather than being imposed by foreign experts.

ADRA Nepal should continue to encourage VDCs to assume their responsibilities and make all efforts to help them support the **FCHVs**, trained **TBA**s, trained Traditional Healers and

V H W S .

TBAs need torches/flashlights since most babies arrive in the night. The VDCs might take on the responsibility of supplying this small item along with batteries.

VDCs should continue to be encouraged to take on the rotating fund so that the Health Posts and Sub-Health Posts can have an appropriate supply of essential drugs.

In the midterm review it was suggested that TBAs should be supplied with thick durable surgical-type gloves since they are now aware of the dangers of HIV. The cost of disposable gloves is presumably too high, and there are difficulties in ensuring that reusable gloves do not *increase* the risk of infection. This area should be kept in mind and other possible solutions to the problem considered. One idea, for example, is to emphasise the dangers of delivering a baby if the TBA has any areas of broken skin on her hands.

The ADRA-run PHC clinic at Banepa presently dispenses ineffective medicines. The prescribing policy should be reviewed **in** the light of the Essential Drugs list and thought given to whether it is appropriate to be setting a bad example by dispensing ineffective tonics and syrups.

The health quiz contests between neighbouring villages have been great motivators for villagers, volunteers and **VHWs**. These should continue.

Staff nurses who work in the **Banepa PHC clinic** (counselling FP clients and advising in other areas) request more colourful teaching aids. They would like more flip-charts and posters on FP and vitamin A in particular. UMN (in Kathmandu) have some attractive vitamin A and super-flour porridge posters.

Visits to the Banepa PHC clinic by trained **TBAs**, FCHV and THs should continue to be encouraged, along with exchange visits to other geographical regions (eg to **ADRA's** new project in Rasuwa District).

Perhaps one quarter of children seen during the endline survey were underweight and 6% were seriously malnourished; mothers are being taught about super-flour porridge and yet it is not being fed to children much. Promotion of super-flour porridge amongst mothers of children under three is something that should be addressed. Why are mothers not using it much? Could demonstrations of preparing super-flour porridge be made in the **Banepa PHC clinic**? (There are severe space constraints) or in Health Posts? Or during mobile camps? Wild stinging nettles (*sisnu*) should be promoted as good foods too.

Given the limited space available in the present **ADRA PHC clinic** (which is rented from the Red Cross) it would be wise to give some consideration to building an alternative and larger clinic.

ADRA Field Representatives and other staff should be active in supporting and encouraging **VHWs** who at present seem to be rather inactive and have low motivation.

The plans for **ADRA** in Banepa to take a formal role under the umbrella of the National Health Training Centre for training in family planning is appropriate. In assuming such a lead role, there are additional responsibilities for **ADRA** to set and maintain high standards (they are already high), and progress and quality should be constantly reviewed.

ADRA is ideally suited as a FP clinical training centre since there is a good flow of patients. In contrast equivalent government training facilities often attract few patients, and **ADRA** doctors had difficulty getting their initial training, indeed during the evaluation the senior doctor and a nurse were in Indonesia in such training. Rather surprisingly, access to quality training in FP clinical techniques and in master trainers of trainers is wanting in the subcontinent.

Several professionals criticised **ADRA** for being poor at communicating its plans and activities to people and agencies with an interest in these plans and activities. A good period of notice (preferably two months) must be given for any training programme so that MoH and other personnel can communicate with **all** appropriate staff. In this country of difficult communications it is essential that plans are laid in good time and appropriate people informed in good time. **ADRA's** projects are generally effective and impressive and experience should be shared as widely as possible so that useful ideas and interventions can be transferred to other communities.

During meetings with FPAN and the local Red Cross, it emerged that a couple of co-ordination meetings which were to be organised by **ADRA** had not been organised. It is important that if the responsibility for meetings is assumed, then the meetings should be run. Co-ordination between NGOs and other agencies is important - especially when everyone is busy.

What is **ADRA** doing to stimulate neoliterates and channel their newfound enthusiasm?

The content of the health education curriculum contains three important areas (and one less important point regarding coils) which need to be updated and improved:

Mud is a safe hand-washing agent and it is inappropriate to discourage villagers with few resources from using it. References supporting this statement are in the appendix.

The first aid advice after a dog bite is inadequate and will not prevent rabies. The wound must be **SCRUBBED** under **RUNNING** water (tap or jug) for **FIVE MINUTES** (timed with a watch) and then lots of *rakshi* other spirit, or iodine must be poured on. Bites should not be sutured.

Tourniquets should not be applied after a snake bite; limbs are lost in Nepal by inappropriate application of tourniquets, and tourniquets make the situation considerably worse after viper bites. Unfortunately most snake bites happen at night and so the snake is not identified. Most

are non-venomous and even if the bite is from a dangerous snake there is still only a **50:50** chance of receiving a dangerous quantity of venom! The only effective and safe treatment after a venomous snake bite is antivenom given by an experienced clinician, and sometimes very many vials need to be given.

In the FCHV manual there is a totally unrealistic image of what happens when an IUCD (coil) is expelled; generally coils are 'lost' in a clot during menstruation and the client does not notice its disappearance. This inaccurate image may leave a woman contraceptively unprotected.

I would also like to see some health education focusing on the risks of unnecessary intramuscular injections, especially the increased risk of paralytic polio.

Why not promote cold compresses after burns (in the FCHV manual)?

Why is there a relatively low emphasis on *prevention* of diarrhoeal disease? Is this logical? Surely health education aimed at diarrhoea prevention is a must?

Is ADRA promoting the use of washing agents which are not available or affordable?

Has any thought been given to improved hand-washing *techniques*?

Soap seems to be being promoted for hand-washing in FCHV manual and yet most villagers cannot afford to buy soap. There are some references on good hand-washing practice in the reference list in the appendices. A letter mentioning these points about the curriculum has gone to Mrs Vijaya KC at the National Health Training Centre.

Malaria is a big issue locally and should be given higher priority (see also appendix 13).

The present District Education Officer in Dhulikhel is not interested in non-formal education. **ADRA** Nepal should investigate whether the DEO should be involved and see, at least, whether pressure can be applied to at least get him running some co-ordination of literacy efforts in his district. Were he to become more involved, the literacy programmes would be more likely to succeed, there should be less duplication, he would have some control of course content and programmes have more chance of being properly supported and sustained.

The private pharmacies are guilty of irrational and sometimes dangerous prescribing; any future projects would do well to consider up-grading pharmacists' skills and controlling them better. With the present problems of poor drug supplies to the Health Posts, pharmacies are parasitic on the Health Posts and are also able to exploit poor patients.

Present MoH policy is not to immunise any child with DPT who is over one year of age nor any child over three years with measles. There would be benefit in including older children in

immunization campaigns - especially measles - since high immunization coverage and thus 'herd immunity' is needed to prevent epidemics. In addition the immunity of children immunized against measles in the first year of life is likely to wane as they grow older.

The pharmacy set up in Panauti by the Red Cross is in trouble since the Red Cross cannot afford to pay for competent staff. ADRA has been approached to help with this problem and may well be able to give good advice. At present the health worker is only paid according to the profit on drugs sold. This is bound to encourage poor prescribing practice.

The information systems department was not formally evaluated, but needs to be reviewed. Files important to the evaluation could not be readily identified. The system should be set up so that anyone can find their way around the computer **files**, and it should not depend upon one individual being present to get access. There was some confusion about whether the Excel programme should be used by ADRA Nepal since this is not used in ADRA headquarters; has **ADRA** International given clear guidance to ADRA Nepal on this issue?

Discrepancies were noted between the Mid-term Survey (March 1995) and the evaluators findings and it was suggested then that a critical look should be taken at the **30-cluster** survey questions and methods. Was this done?

Problems presumably of a similar nature arose during this **final** evaluation, and the evaluators did not have much confidence in the tool as it was presented in the draft survey report. Cluster villages were not identified so that ethnic group bias could not easily be checked. It would have been interesting for the 30cluster survey to have included a question about child deaths in the village in the last year. The standard of presentation of the final evaluation report was poor and it contained numerous mistakes (including in project targets) which made the evaluation more difficult than it need have been. How much of this could have been avoided with better supervision from **ADRA** International?

Several questions in the survey are either unintelligible in the local context or give misleading information. An example is question 4: 'Do you work away from home?' Nepali mothers almost invariably take small children to work with them and so breast-feeding continues. Question 11 was not understood. I have already discussed the problems of the definition of diarrhoea and understanding of the alien concept of vitamin A. And why is it assumed that pharmacies are a safe source of advice and treatment? Although some of the people selling drugs in pharmacies should have received some basic health training the standard of prescribing is poor and inappropriate medicines are often sold, sometimes at great costs to both the finances and to the health of the patient. Questions relating to advice sources are difficult to interpret since it is unclear from the survey report whether the TBAs and THs who gave advice were trained or not. The problem of assuming that people without immunization cards are unimmunized seems to be an on-going problem. Local staff are likely to be very discouraged if their project is labelled a failure because of a bureaucratic problem which prevented card distribution. Surely both self-reported data and data based on cards held could be considered in future projects?

XI. Concluding Remarks

The CS IX project implemented by ADRA Nepal in Kavre District has achieved impressive and significant contributions to improving child survival and maternal health. There is of course much more work to be done, but I have been inspired by the achievements and I trust that every effort will be made for **ADRA** to share its knowledge and experience as widely as possible. It is appropriate that this project was planned and implemented by Nepalis in a truly 'bottom up' approach. It is perhaps worth mentioning that amongst senior MoH staff Kavre District is seen as a model especially since according to MoH targets Kavre is amongst the top three or four in all indices. And at least one other DHOs and one other agency are in the process of arranging a visit to Kavre to see how MoH and ADRA achieved so much.

XII. Evaluation Personnel

Dr. Shiva Shankar Jha,
Director,
Central Region Health Directorate,
Ministry of Health, Nepal

Dr. Baburam Marasini,
Chief of the District Health Officer, Kavre,
Ministry of Health, Nepal

Mr. Madhu Sudan Koirala,
District Public Health Officer, Kavre District,
Ministry of Health, Nepal

Mr. Birendra B. Pradhan,
Child Survival Project Director,
ADRA, Nepal

Dr. Solomon Wako,
Director Evaluation Department,
ADRA International, US

Dr. Jane M. Wilson,
Community Health Specialist presently resident in Nepal.
Team Leader.

The team leader was the only person who was full time on the evaluation.

APPENDICES

APPENDIX 1

Scope of Work

SCOPE OF WORK FOR CHILD SURVIVAL IX - NEPAL FINAL EVALUATION

I. INTRODUCTION

This is a scope of work for the Final Evaluation of **ADRA's USAID** funded **Child Survival IX** project which was signed on September 30, 1993 by Mario Ochoa, Executive Vice President of the Adventist Development and Relief Agency. The project was designed to have a three year life beginning on or about September 30, 1993 and ending September 29, 1996.

To **fulfill** the evaluation requirements outlined in the cooperative agreement, a Mid-term Evaluation was carried out May 1-19, 1995. **ADRA** also submitted two annual reports. These documents summarize project inputs and outputs, progress to date, barriers to success, and project highlights.

According to the agreement the Final Evaluation Report must be completed prior to the grant expiration date and be included in **ADRA's** Child Survival IX Final Report to be submitted to **USAID** before November 30, 1996.

II. THE PURPOSE OF FINAL EVALUATION

The prime purpose of the Final Evaluation for Child Survival Projects is to address three crucial issues. These are: effectiveness, sustainability and lessons learned.

In the area of effectiveness the Final Evaluation looks at the extent to which the Child Survival activities met the basic health needs of the recipient communities as stated in the goals and objectives of the project.

Likewise, the Final Evaluation assesses the project's competence and prospects in terms of carrying out sustainable and effective Child Survival activities.

Ultimately, the Final Evaluation shows what lessons, if any, positive and/or negative, intended and/or unintended, are learned. It is expected that such lessons will benefit **ADRA's** own current and future Child Survival projects around the world. Furthermore, if and when applicable, the gained knowledge will be disseminated to all other organizations who deal with Child Survival Projects.

III. GOALS AND OBJECTIVES

In the DIP it is stated that the goal of Nepal Child Survival IX Project is to decrease morbidity/mortality and improve the quality of life for low income mothers and children in the Central Region of Nepal in Kavre District, based in the town of Banepa.

At the heart of **ADRA's** strategy is the mother as the primary care giver. As such the majority of activities will be educational and promotional in nature. This involves educating and motivating

mothers to improve their health practices and encouraging them to increase the utilization of the existing, but enhanced, community services.

The objectives of the project include:

Maternal and family planning

1. Increase the percent of rural mothers who had at least one antenatal visits (by TBA and/or ANM) from 27.9% to 50%
2. Increase the number of pregnant mothers with cards receiving at least two Tetanus Toxoid doses before delivery from 49.5% to 70%
3. Increase the percent of rural mothers who are assisted in delivery by a trained TBA from 8.7% to 20%
4. Increase the percent of rural mothers who desire no more children in the next two years using a modern method of contraception from 15.4% to 25%

CDD/nutrition

1. Increase the percent of treatment with ORT of diarrheal episodes in rural infants/children from 34% to 60%
2. Increase the percent of rural infants/children receiving the same or more breast milk during diarrheal episodes from 87% to 95%
3. Increase the percent of rural infants/children receiving the same or more fluids other than breast milk during diarrheal episodes from 44% to 70%
4. Increase the percent of rural infants/children receiving the same or more food during and after diarrheal episodes from 29% to 50%

The following table shows **CDD/Nutrition** intervention method

Inputs	Expected outputs	Expected Outcomes
• CHV TOT training	• 10 trainers of CHVS trained	• Increase in the number of CHVs aware of ORT
• Training of CHVs	• up to 450 CHVs trained in project intervention including CDD/Nutrition	• Increase in the number of mothers who know about ORT use, feeding, etc.
• Promotion of cereal based ORT and home management, with emphasis on referral for severe cases	• Materials for use with Mothers Groups on cereal based ORT	• Increase of use of cereal based ORT • Increase in number of referral cases for diarrhea
• Education in literacy classes regarding use of ORT and home management of diarrhea	• Up to 2136 women educated about diarrhea treatment	• Increase in number of mothers practicing good home management of diarrhea

ARI

1. Increase the percent of rural mothers of infants/children (less than 24 months) who sought medical treatment during episodes of **ARI** from 51% to 75%
2. Increase the number of CHVs who know the two key symptoms of AEU

The following table shows ARI intervention method

Inputs	Expected Outputs	Expected Outcomes
• CHV TOT training	• 6trainersofCHVstrained	• Increase in the number of CHVs aware of ARI
• Training of CHVs	• up to 450 CHVS trained in project intervention on ARI	• Increase in the number of CHVs aware of ARI
• Education of mothers on ARI with emphasis on referral for severe cases	• Materials for use with Mothers Groups on ARI	• Increase in number of referral cases for ARI
• ARI education in the literacy classes	• Up to 2137 women educated about ARI	• Increase in number of mothers who recognize signs of ARI and seek treatment

Literacy

Graduate 2200 mothers from basic literacy curriculum including key CS intervention messages

Vitamin A

The evaluation team will assess the extent of **Vitamin A** activities in relation to the budget allocation as shown in Table A of the Annual report, especially in relation to the quality of training of Vitamin A messages to FCHV and TBA, Mother's Groups and Literacy classes. The team should assess the knowledge of mothers about Vitamin A messages. The team should also assess and determine what percent is appropriate based on baseline results.

1. The increase of women who are able to identify Vitamin A-rich foods as a means to help prevent night blindness.
2. The increase of women who have increased their consumption of Vitamin A-rich foods.

HIV/AIDS

The evaluation team will assess the extent of HIV/AIDS activities in relation to the budget allocation as shown in the Annual Report; especially in relation to the HIV/AIDS messages that are given to FCHV and TBA, Mother's Groups and Literacy classes. The team should assess the knowledge of mothers about HIV/AIDS. The team should also assess and determine what percent is appropriate based on baseline results.

The increase of women who are able to identify HIV/AIDS and who know at least one method of transmission.

Other Areas

Other areas that the project is concerned with or needs to deal with are: 1) Village Development Committee support systems, 2) Health information System (HIS), 3) Scheer Memorial Hospital relations with the Child Survival M Project and its referral system, and the utilization of the ARI ethnographic survey developed by CDC and WHO.

*The DIP's measurable objectives and indicators **for** sustainability*

The measurable objectives and indicators of the project to track sustainability are: 1) **Programmatic objective:** Continuation of child survival service delivery in the project area as measured by the number of services delivered each year. 2) **Institutional objective:** The PCH clinic and the SMH will continue to exist and provide services at the end of the project. The indicator is the presence of the clinic and hospital at Kavre at the end of the project. 3) **Financial objective:** Part of the costs of the PHC clinic will be covered by fees collected. The indicator will be the existence of the operational fee structure.

Specific objectives

1. CHV activity has been institutionalized in the community
2. TBA's are accepted as the preferred maternal care provider by the community
3. Referral system is institutionalized in MOH system
4. HIS system is institutionalized in DHO
5. Following activities continue in the community - reinforced & taught through mothers groups:
 - + CDD home management and referral for moderate/severe dehydration
 - + ALRI recognition, appropriate referral/ treatment
 - + MC ante natal care and safe delivery practices
 - + NUT appropriate weaning foods and during pregnancy and lactation
6. Continued operation of Banepa Primary Health Care Clinic has been assumed by local organization (Municipality or DHO)
7. Community level system of women's groups, CHV's, TBA's ward members, VHW's and MOH referral system capable of addressing other and new community health problems.
8. Community level system of women's groups, CHV's, TBA's ward members, VHW's and MOH referral system capable of addressing other and new community health problems.

Utilization Of Previous Documents For the Final Evaluation

1. The goals and objectives (including planned inputs and expected outputs) of Nepal's Child Survival IX Project must be viewed in the light of the suggestions and recommendations that were made at the end of the Mid-term Evaluation which took place at the half life of the project, May 1-19, 1995. However, the evaluation team needs to familiarize itself with the previous two annual reports that were submitted to **USAID**. These documents should help the evaluation team understand the strengths and weaknesses of the project until the time of their respective publications and provide direction for the remainder of the project's life.

Iv. EVALUATION METHODS

A. Evaluation Concept

It is helpful to remember that the process of evaluation is never far from its social setting. In view of this, the evaluation team may realize that no matter how objectively the data was gathered and analyzed, in the end, the final interpretation can not totally be free of the social and political climate of the time and the personal biases of the evaluator. Therefore, the evaluating team is expected to be unduly astute with its written presentation as this involves the lives of many whose welfare could be affected either positively or negatively. The team may keep in mind that we are social beings and as such, every assessment we do apparently takes place in a cultural context. Consequently, there are ideas that do not make sense outside their social milieu.

This evaluation takes place in the context of two cultures, that of the funder's culture and that of the beneficiary's culture. The evaluation team should keep in mind that it is undertaking a major responsibility in its attempt to make a cross-cultural analysis and interpretations.

B. Evaluation Guidelines:

The evaluation process will focus on the guidelines designed by USAID for the Final Evaluations of all USAID funded Child Survival Projects and the supplementary questions. The evaluation team is reminded that all **USAID** funded Child Survival Projects are required to respond to the sustainability questions and issues outlined in the Child Survival Guidelines.

It goes without saying that every country is unique and Nepal is not an exception. In the event that there may be questions which do not apply. Please, do not manipulate the questions to manufacture its applicability, but explain why the question does not apply.

It is obvious that a beneficial evaluation is a result of reliable data collection. Collection methods may include: general observations, surveys, interviewing recipients and/or staff, gathering information from written material, and so on.

In the preparation of the final report, the evaluating team is requested to provide the reader with, as much as possible, accurate sources of its information and conclusions. In fact, all evaluation statements must be backed by existing data. When this is not the case, the team is required to state this fact and provide a rationale for its observations and conclusions.

C. Evaluation Activities

Following these guidelines and taking the program objectives and the measurable objectives and indicators for sustainability as listed above, the evaluation team is expected to perform the following.

First, the evaluation team must answer the question of the project's effectiveness. In other words, to what extent did this Child Survival Project meet the basic health needs of the recipient communities as stated in the goals and objectives of the project.

Second, the evaluation team must assess the project's competence and prospects in terms of carrying out sustainable and effective Child Survival activities.

Ultimately, the Final Evaluation has to show what lessons, if any, positive and/or negative, intended and/or unintended, are learned that may help others in operating diverse Child Survival Projects.

V. ETHICAL CONCERNS AND FREEDOM OF INFORMATION

It is ADRA's position that when evaluating and/or studying any form of human behavior, ethical concerns are paramount. Thus, **ADRA/I** accepts the ultimate responsibility for gathering and disseminating information from all of its regional offices around the world. Consequently, **ADRA/I** requires the evaluation team particularly the hired consultants, to turn to **ADRA/I** all the data and other information which were used as the basis of the team's **Final** inferences.

It is ADRA's position that no evaluation is final until it is presented to **ADRA/I**, discussed with the consultants in an open manner, clear understandings of all conclusions and any differing views are reached between the consultant and **ADRA/I** as reflected in the final document.

ADRA/I considers it unethical for any member of the evaluation team to use information gathered during the evaluation assignment for anything other than the evaluation under study. Should viable reason present itself for using the information obtained for other purposes, then, **ADRA/I** must be consulted and prior per-mission secured. This must be adhered to, especially when the material is of a controversial

nature and exclusively involves the private lives of individuals in a given community and/or **ADRA's** internal affairs.

VI COMPOSITION OF THE EVALUATION TEAM

The evaluation team will consist of Dr. Jane Wilson, Team Leader (Independent Consultant), Dr. Solomon Wako (**ADRA** Headquarter Representative), Mr. Paul Dulhunty, (Country Director), Mr. Birendra B. Pradhan (Child Survival Project Director) and Dr. P. K. Jha, (Director, Central Region Health Directorate Office, MOH).

VII CALENDAR OF EVALUATION ACTIVITIES - September 8-27, 1996

September 8 (Sunday)

- Move to Banepa
- **ADRA** staff will brief about CS IX Project
- Discuss with the staff on different interventions
- Stay in hotel in **Banepa/Dhulikhel**

September 9-13 (Monday-Friday)

- Field Visits (**FCHVs, TBAs, THs, Community Leaders**)

September 15 (Sunday)

- Discussion on Findings among team members

September 16-20 (Monday-Friday)

- **Field** Visits/health posts & sub-health posts

September 22 (Sunday)

- Discussion on findings among team members

September 23 (Monday)

- Meet with local agencies /**ADRA** Finance Staff

September 24 (Tuesday)

- Meet with MOH Directors

September 25 (Wednesday)

- Meet with Donor/**ADRA** Finance Staff

September 26 & 27 (Thursday and Friday)

- Preparation of Draft Report
- Presentation to the **ADRA** staff
- Presentation to MOH Officers
- End of the Evaluation

September 29 & 30 (Sunday and Monday)

- Final report preparation (only Team Leader will be involved)

VIII. REPORT FORMAT

The Final Evaluation Document will be written using the following outline:

1. **Title Page.** The title page will state the name and project number, names and titles of consultants, and date and name of the document.
2. **List of Acronyms.** Unusual or obscure acronyms should be identified at the beginning of the report.
3. **Executive Summary.** The executive summary synthesis should be no more than five pages in length and will include: background of project, evaluation methodology, accomplishments and impact of the project, concerns and recommendations:
4. **Table of Contents.** The table of contents should outline each major topic section, appendices, figures, maps, tables, etc.
5. **Body of the Evaluation.** The body of the evaluation report will include the following in sequential order:
 - *Introduction and background:*
The introduction and background will include at a minimum: Justification for awarding grant, goals and objectives of the grant, chronological order of project implementation and, the purpose of the evaluation.
 - *Evaluation Methodology:*
The evaluation methodology will include at a minimum: description of data collection and evaluation sites selection processes.
 - *Sustainability Issues:*
The section on sustainability issues will include sequential responses to the sustainability questions and issues outlined in the Child Survival Final Evaluation Guidelines.
 - *Supplementary Issues and Questions:*
This section will address in sequence the supplementary issues and questions outlined in this Scope of Work
6. **Appendices.** The appendices included will be at the discretion of the evaluation team. However, the appendices must include the scope of work, itinerary for the evaluation visit, list of individuals interviewed/surveyed during the evaluation, surveys and interviewer questionnaires, references cited, and maps. Additional appendices such as case studies, etc. may be included as determined appropriate by the evaluation team

Ix. BUDGET FOR EVALUATION

The budget for the Final Evaluation of **ADRA/Nepal's** Child Survival IX Final Evaluation is attached.

APPENDIX 2

Child Survival Final Evaluation Guidelines

BHR/PVC GUIDELINES FOR FINAL EVALUATION OF CEILD SURVIVAL PROJECTS ENDING IN 1996 (CS-IX)

The final evaluation team should address each of the following points. As far as possible, respond to each point in sequence.

I. PROJECT ACCOMPLISHMENTS AND LESSONS LEARNED

k Project Accomplishments

1. Compare project accomplishments with the objectives outlined in the DIP and explain the **differences. Describe** any circumstances which may have aided or hindered the project in meeting these objectives.
2. Describe unintended positive and negative effects of project activities.
3. Attach a copy of the project's Final **Evaluation** Survey with the survey results

B. Project Expenditures

1. Attach a pipeline analysis of project expenditures.
2. Compare the budget contained in the DIP with the actual expenditures of the project. Were some categories of expenditures much higher or lower than originally planned? Please explain.

C. Lessons Learned

Outline the main lessons learned regarding the entire project which are applicable to other PVO **CS** projects, and/or relevant to USAID's support of these projects. Be sure to address specific interventions, sustainability and expenditures.

II. PROJECT SUSTAINABILITY

A. Community Participation

What resources has the community contributed and will continue to contribute that will encourage continuation of project activities after donor funding ends?

B. NGO's

What is the current ability of the NGO partners to provide the **necessary financial**, human and natural resources to sustain effective project activities once Child **Survival** funding ends?

C Ability and Willingness of Counterpart Institutions to Sustain Activities

What is the current ability of the MOH or **other** relevant local institutions to provide the necessary financial, human, and material resources to sustain effective project activities once **CS** funding ends?

C Sustainability Plan. Objectives. Steps Taken. and Outcomes

What are the steps the project has undertaken to promote sustainability of child survival activities once project funds end? Please fill in a table (example below) with sustainability objectives and outcomes.

Goal	End-of-project objectives	Steps taken to date	Outcomes
1) MOH will take on health promotive activities of CS project	1) MOH will supervise and provide refresher training for 50 CHVs 2) Health officer will meet monthly with community health committees	1) 2 MOH nurses trained in CHV supervisory methods 2) Health officer attended 3 health committee meetings	1) 10 CHVs being supervised by MOH nurses (20% of objective) 2) Health officer attended 3/10 meetings (30%)
B)			

III. EVALUATION TEAM

A. Identify by names, titles and institutional affiliations all members of the final evaluation team.

PVO/COUNTRY: _____
 COOPERATIVE AGREEMENT NO.: _____

UDDEI PREPARED: _____
 DATE SUBMITTED TO USAID: _____

1996 PIPELINE ANALYSIS: PART A - HEADQUARTERS BUDGET

Chuck one: ORIGINAL BUDGET _____ REVISED BUDGET _____

		Total Agreement Budget (/ /) to (/ /)		Actual Expenditures to Date (/ /) to (/ /)		Projected Expenditures Against Remaining Obligated Funds (/ /) to (/ /)		Projected Unobligated Funds at End of Project (/ /) to (/ /)			
		USAID	PVO	USAID	PVO	USAID	PVO	USAID	PVO		
I. DIRECT COSTS											
A. PERSONNEL (salaries, wages, fringes)	1. Headquarters - salaries/wages										
	2. Field, Technical Personnel- salaries/wages										
	3. Field, Other Personnel- salaries/wages										
	4. Fringes- Headquarters + Field										
	SUBTOTAL- PERSONNEL										
B. TRAVEL/PER DIEM	1. Headquarters-Domestic (UU)										
	2. Headquarters-International										
	3. Field- In country										
	4. Field-International										
	SUBTOTAL- TRAVEL / PERDIEM										
C. CONSULTANCIES	1. Evaluation Consultants- Fees										
	2. Other Consultants- Fees										
	3. Consultant travel / per diem										
	SUBTOTAL- CONSULTANCIES										
D. PROCUREMENT (provide justification/ explanation in narrative)	1. Supplies . Headquarters b. Field- Pharmaceuticals (ORS, Vit. A, drugs, etc.) a. Field- Other										
	2. Equipment a. Headquarters b. Field										
	3. Training a. Headquarters b. Field										
	SUBTOTAL- PROCUREMENT										
	E. OTHER DIRECT COSTS (provide justification/ ● In plan/narrative)	1. Communications . Headquarters b. Field									
		2. Facilities . Headquarters b. Field									
		3. Other . Headquarters b. Field									
		SUBTOTAL- OTHER DIRECT									
		TOTAL - DIRECT COSTS									
		II. INDIRECT COSTS									
A. INDIRECT COSTS	1. Headquarters										
	2. Field (if applicable)										
TOTAL - INDIRECT COSTS											
GRAND TOTAL (DIRECT AND INDIRECT COSTS)											

PVO/COUNTRY: _____
 COOPERATIVE AGREEMENT MO: _____

DATE BUDGET PREPARED: _____
 DATE SUBMITTED 10 UWO: _____

1996 PIPELINE ANALYSIS: PART B -COUNTRY BUDGET

Check on: ORIGINAL BUDGET _____ REVISED BUDGET _____

		Total Agreement Budget (/ /) to (/ /)		Actual Expenditures to Date (/ /) to (/ /)		Projected Expenditures Against Remaining Obligated Funds (/ /) to (/ /)		Projected Unobligated Funds at End of Project (/ /) to (/ /)	
		USAID	PVO	USAID	PVO	USAID	PVO	USAID	PVO
I. DIRECT COSTS									
A. PERSONNEL (salaries, wages, fringes)		1. Headquarters-salaries/wages							
		2. Field, Technical Personnel-salaries/wages							
		3. Field, Other Personnel-salaries/wages							
		4. Fringes-Headquarters + Field							
		SUBTOTAL- PERSONNEL							
B. TRAVEL/PER DIEM		1. Headquarters-Domestic (USA)							
		2. Headquarters-International							
		3. Field- in country							
		4. Field- International							
		SUBTOTAL- TRAVEL / PER DIEM							
C. CONSULTANCIES		1. Evaluation Consultants- Fees							
		2. Other Consultants- Fees							
		3. Consultant travel / per diem							
		SUBTOTAL- CONSULTANCIES							
D. PROCUREMENT (provide justification/ explanation in narrative)		1. Supplies							
		a. Headquarters							
		b. Field - Pharmaceuticals (ORS, Vit A, drugs, etc.)							
		c. Field- Other							
		2. Equipment							
		a. Headquarters							
		b. Field							
		3. Training							
		a. Headquarters							
		b. Field							
		SUBTOTAL- PROCUREMENT							
E. OTHER DIRECT COSTS (provide justification/ ● rplwvttion in narrative)		1. Communications							
		a. Headquarters							
		b. Field							
		2. Facilities							
		a. Headquarters							
		b. Field							
		3. Other							
		a. Headquarters							
		b. Field							
		SUBTOTAL- OTHER DIRECT							
TOTAL - DIRECT COSTS									

II. INDIRECT COSTS									
A. INDIRECT COSTS		1. Headquarters							
		2. Field (if applicable)							
TOTAL - INDIRECT COSTS									

GRAND TOTAL (DIRECT AND INDIRECT COSTS)									
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PVOCOUNTRY: _____

COOPERATIVE AGREEMENT NO.: _____

DATE BUDGET PREPARED: _____

DATE SUBMITTED TO USAID: _____

1996 PIPELINE ANALYSIS: PART C • HEADQUARTERS/FIELD BUDGET

Check one: ORIGINAL BUDGET _____ REVISED BUDGET _____

		Total Agreement Budget (/ /) to (/ /)		Actual Expenditures to Date (/ /) to (/ /)		Project Expenditures Against Remaining Obligated Funds (/ /) to (/ /)		Projected Unobligated Funds at End of Project (/ /) to (/ /)	
		USAID	PVO	USAID	PVO	USAID	PVO	USAID	PVO
I. DIRECT COSTS									
A. PERSONNEL (salaries, wages, fringes)	1. Headquarters-salaries/wages								
	2. Field, Technical Personnel-salaries/wages								
	3. Field, Other Personnel-salaries/wages								
	4. Fringes-Headquarters + Field								
	SUBTOTAL- PERSONNEL								
B. TRAVEL/PER DIEM	1. Headquarters-Domestic (USA)								
	2. Headquarters-International								
	3. Field- In country								
	4. Field- International								
	SUBTOTAL- TRAVEL / PER DIEM								
C. CONSULTANCIES	1. Evaluation Consultants- Fees								
	2. Other Consultants- Fees								
	3. Consultant travel / per diem								
	SUBTOTAL- CONSULTANCIES								
D. PROCUREMENT (provide justification/ explanation in narrative)	1. Supplies								
	a. Headquarters								
	b. Field - Pharmaceuticals (ORS, Vit. A, drugs, etc.)								
	c. Field- Other								
	1. Equipment								
	a. Headquarters								
	b. Field								
	3. Training								
	a. Headquarters								
	b. Field								
SUBTOTAL- PROCUREMENT									
E. OTHER DIRECT COSTS (provide justification/ explanation in narrative)	1. Communications								
	a. Headquarters								
	b. Field								
	2. Facilities								
	a. Headquarters								
	b. Field								
	3. Other								
a. Headquarters									
b. Field									
SUBTOTAL- OTHER DIRECT									
TOTAL DIRECT COSTS									

II. INDIRECT COSTS									
A. INDIRECT COSTS	1. Headquarters								
	2. Field (if applicable)								
TOTAL - INDIRECT COSTS									

GRAND TOTAL (DIRECT AND INDIRECT COSTS)									
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APPENDIX 3

Account of Field Trips Made During the Evaluation

3 : Field Trips

Wednesday 11th September 1996

ADRA evaluation team: Dr B Marasini @HO), Birendra Pradhan, Solomon Wako, Jane Wilson, plus Narayan Satyal (Field Supervisor).

Panchkhal Health Post

We arrived to see a busy immunization session in progress with a good atmosphere; vaccinators were polite and efficient; pink cards for women having TT immunization and white cards for the infants' immunization records.

Discussion with Mr. Mohan Subedi, Health Assistant of six months standing locally (2.5 years training) and Mr. Chetnath Kafle, Community Medical Auxiliary (= Auxiliary Health Worker) who has worked in this area for many years. They requested better communication about ADRA's activities so that better collaboration and supervision can go on, but otherwise were generally very positive about ADRA's activities. We asked whether ADRA might be creating additional frustrations by encouraging consultation to an over-loaded, under-resource clinical service? They thought not, and nor did other clinical workers we interviewed. Top of the list of these MoH employees own problems is lack of sufficient oral antibiotics and some other drugs. Injectable antibiotics and other essentials are supplied, however. Many useful drugs last for less than two months of the year. Dr Marasini, Chief of the DHO, works hard to redistribute drugs as they are required, but his supplies are inadequate too. They look forward to the implementation of the rolling fund for essential drugs. Drugs for malaria, TB and leprosy are better, but IV fluids are used very quickly. There is lots of *vivax* malaria (about 1500 cases/year; catchment population is about 70,000) locally. The transmission season is April to October.

The Health Assistant (HA) commented that ADRA counsellors were active in organising Mothers Groups and this indirectly put pressure on the **VHW** to become more active and useful, since this is exactly the kind of work that the VHW should be doing but often is not. The HA also said that he found communicating with his patients easier since mothers now have a better understanding of health matters. I asked if we were creating more work by sending more ill patients to him and he thought that it may be the case, but that he had not noticed; he did not feel any increased frustration in running a difficult service with inadequate resources, perhaps because Dr. Marasini is supportive.

The Health Post was flanked by two private dispensaries which sold a range of useless and useful preparations; various large bottles of expensive tonics were on prominent display including pineapple-flavoured 'digestive enzymes' ! It is likely that a great deal of money is spent on such unnecessary potions.

Mahadevsthan Village

Focused group discussion with about 25 women and their small children; these were mostly Brahmin high-caste Hindus; 10 men also looked on. The TBA (**Devi Sapkota**) and local Counsellor (Sita Sapkota) were also present. The village women were generally well dressed and prosperous-looking. Good water supply. The children all looked healthy. Denied ANY diarrhoea in the last year amongst their children (!) and attributed this to better hygiene behaviour since the project started working in their village. Later though I talked to the mother of one obviously underweight 20 month old boy with intermittent diarrhoea. The child had been given ORT on occasion. We suggested he needed super-flour porridge (5 times daily) and we directed the Counsellor to teach her about this.

All the children present had BCG scars and all the women claimed to have had at least two TT immunization; some said they had received five TT shots. Knowledge of issues taught by the health educators seemed good on all subject areas.

We asked about child deaths in the last year. There had been two, both premature births and both pregnancies conceived after less than a year of the birth of the previous child. One of the bereaved mothers was present and we asked her about her desire for family planning; she was keen but prevented by her mother-in-law.

We asked the TBA about her work. She had been involved a little in helping with deliveries before her training, and now was quite active. She had delivered nine children in the previous year. She had managed to replenish her safe delivery kits, had bought ten more and had five at home. She seemed knowledgeable and happy with her role.

The Counsellor told us about her work and was enthusiastic about the community finance scheme that has been set up. Mothers contribute Rs 20-30/- per month and the fund is used to allow people to buy fertiliser, for doctors bills, or for labour charges to help bring in the harvest and then the money was repaid (at 2% interest - per month) when the harvest was in. Other schemes exist in other villages in which she works. She said that there was a little tension between her and some of the CHV; **knowing** she is paid and they are not some feel she should organise everything, and he does indeed organise Mothers' Group meetings in two wards.

Panchkhal Danuwar Community

Interview with young women who had attended literacy classes. The meeting started slowly with the women being inordinately shy but by the end they were contributing and 24 women participated. The literacy-classes involved 36 women initially and there were 28-30 regular attenders by the end; classes ran in the evening six days a week. One woman said she now enjoyed magazines and they were all enthusiastic about more classes. 'Would ADRA organise these please?' they asked.

Before the literacy classes no-one in this community had gone to school but now there was enthusiasm for education and all the under ten year olds we could **find** were attending school.

Asked who they consulted when ill, they said the *dhami* (Traditional Healer) first and then the health post in Panchkhal. Their knowledge about the health topics presented during the literacy programme was superficial but adequate, and although they were a bit muddled about who got what immunizations when, they had an idea of the range of protection offered and roughly how many shots were needed. They knew that vitamin A-rich foods protect against night blindness. When we mentioned AIDS most of the women giggled and hid their faces and did not want to discuss the topic. We asked about hand washing practices and they said that since receiving health education, they had stopped using mud as a washing agent [which to my mind is anti-health education!].

Thursday 12th September 1996

ADRA evaluation team: Birendra Pradhan, Solomon Wako, Jane Wilson, plus Narayan Satyal, Pradeep Karmacharya (Field Representative).

Taukhal

Present: TBA Santosi Basnet, CHV Bharabi Khadka, Ward Member Jit Bahadur Basnet, Counsellor Narayani Devi Shrestha and initially nine other women; more joined later. All Chhetri caste. Another Mothers' Group exists for the Tamang caste women who live close to the **Brahmin/Chhetri** community here, but there was not time to meet them. The Brahmin./Chhetri mothers' knowledge was generally very good on health matters, although there was a little confusion about the exact details of the immunization programme. Knowledge about the need for rehydration during diarrhoea **was** generally fairly **good**. One **woman** talked of *nun-chini-pani* (salt and sugar solution), which some years ago was vigorously promoted in Nepal as a home rehydration solution. Since she introduced the subject we asked her the proportions of salt and sugar and the quantity of water. She confused the quantities of salt and sugar so that the solution would have been dangerous; we explained and suggested that she used *Jeevan Jal* packets or cereal based ORT. The mothers uananimously agreed that *Jeevan Jal* was easiest.

We asked about illness in the village; there had been no child deaths in the previous year, but they recalled a death from pneumonia three or four years before. Child deaths were more common a few years ago; now they are aware of when things are serious. They had been using the Red Cross clinic in Panauti (about 20 minutes walk away) but find the charges rather high; there is a **Rs10/-** registration charge and then medicines cost extra; the **Rs 10/-** charge applies to those attending for immunization too. Since the CHV started work the community is now aware of the free immunization service offered by the government, and they tend to use pharmacies in Panauti, where they avoid the registration fee.

Literacy classes were run in the village by the Australian forestry project, but containing health material developed with the MoH and **ADRA**; the classes ran for six months then fizzled out. They want more.

The TBA (who worked delivering babies before but is busier since her training) has delivered 10 babies in the last year, and has only one Safe Delivery Kit left. Her problem is that her relatives have not paid the Rs 15/- for the kits used; three of her deliveries were her daughters-in-law and one her own daughter (she says she will buy more herself). We involved the Ward Member in the discussion to ask if he could help solve this problem.

The Counsellor reported that five wards in which she works have active CHVs and regular Mothers' Group meetings and in the other four, she needs to organise the meetings. She seemed reasonably content with the situation as it is. There is a 'community forest' close to the village. These villagers run it by paying Rs 2/- for a *doko* (large basketful) of grass (for fodder) and Rs 5/- for a *doko* of wood; the money comes from sales of grain, etc. and pays a guard for the forest. The women find they have much more time now they do not have to go far to collect fire-wood.

Malpi

Present: CHV Chinu Thapa, TBA Radha Basnet, Counsellor Santi Basnet plus a woman trained as a TBA by the Red Cross eight years previously; 14 women, seven small children and two men, one of whom was very vocal.

This village is contiguous with the town of Panauti so communications are easy; there are bus services to Banepa and Kathmandu. This is a vocal and active group. They have regular Mothers' Group meetings which last 1-3 hours; they have set up a community fund and members contribute Rs 20/- a month. The women interviewed had good knowledge of the basic health issues, although again the exact details of immunization schedules were not quite correct. They knew rice-based ORT and super-flour porridge. One woman asked why no-one talked of home sugar and salt solutions (*nun-chini-pani*) any more and we discussed the advantages and possible dangers. They knew that spinach, pumpkin and oranges were good foods for keeping healthy and also knew children should be encouraged to eat when they are ill.

They reported that child deaths had been common 8-10 years ago but now they were rare; the last was 18 months previously in a child I would guess had congenital heart disease: after a troubled life, he died aged four years. They attributed better health to better knowledge, especially knowing when a **child** was seriously ill; they also have better access to allopathic medical treatments. These days they consult the *dhami jhañkri* but also take medicines too. There is a private clinic in Panauti which charges Rs 60/- for the initial consultation and Rs 35/- for follow-up; in addition medicines are extra. There is a government sub-health post which they attend, or they go to the clinic at Banepa or to Kathmandu; in the last year only two had gone to hospital in Kathmandu and they were both old people. The women said that hospital deliveries were becoming more popular amongst pregnant women, **mainly** because modern women could not stand the pain of labour.

A woman asked advice about treatment of her seven month old's cold and we explained how to decongest the nose (with a drop of boiled water in each nostril) to make breast feeding easier.

Red Cross clinic in Panauti

We did not interview anyone here but I was surprised to see the prominent displays of tonics and bottles with little therapeutic value, including pineapple-flavoured ‘digestive enzymes’ ; people are clearly encouraged to waste money on potions which have little proven value, especially multivitamin preparations. I was disappointed to see this in a Red Cross clinic as well as at the private ‘Drug Halls’.

Monday 16th September (*Teej* festival for women)

ADRA evaluation team: Mr. M S Koirala (DPHO, Kavre), Solomon Wako, Jane Wilson, plus Mr. Suman Gurung (Training Officer ADRA Nepal), Narayan Satyal, Mahadev Shrestha (Field Representative).

Shankhupaticaur

Present: Antari Tamang TBA, Santi Maya Shrestha FCHV, the VDC vice-chairman, one ward member, a trained Traditional Healer, and 35 (mainly Tamang) women participants. We ran a group discussion focused on health knowledge and practices and we began by trying to work out the coverage of Tetanus Toxoid immunization amongst the women; on the third attempt we discovered that most women were completely un-immunized:

No. of TT immunizations	5 times	4	3	2	1	0
No. of women immunized	2	3	1	2	2	22

But of the women who had received no tetanus immunization, eight were over the age of 45 years and so outside the target age-group. Even so, this indicates rather poor coverage.

Of the mothers present, most **knew** that infants should have five injections and two women knew the diseases these gave protection against. Most claimed to have had their children immunized but a spot check on five children revealed only one BCG scar. This rather implied that childhood immunization coverage was also poor.

Knowledge on key **health** issues was quite good several mothers knew the two important signs of serious ARI; they volunteered that the local name for ARI (whether serious or mild) is *Nepale lagio*; which means it is a supernatural visitation from Kathmandu. The mothers seemed familiar with *Jeevan Jal* and several mothers knew how to prepare cereal-based ORT and also super-flour porridge.

They could only recall one child death in the last year: a boy of two months who died from an unknown cause about this time (September) last year. They were all convinced that their health was far better now than say ten years ago, when it was common for children to die. When asked the reason for improved health they said better knowledge about allopathic facilities (they are no longer forced to seek help from traditional healers, but could now buy medicines, get to hospital,

etc. More women could read now in the village and so had access to more resources. They also said measles and diarrhoea caused more deaths before. These days mothers take their sick children to **the jhañkri** first and if he does not seem to be able to help, then they go to a 'medical hall' [pharmacy] or the health post.

The young women had all heard of AIDS, but one thought it was curable. They knew the foods which helped children avoid night-blindness and eye problems, but denied problems of night-blindness or other more severe nutritional problems locally.

The CHV seemed a little slow and was less knowledgeable than two or three of the 'ordinary' village women, although these same women said that they had learned from the CHV. She had been trained by the Ministry of Health eight years previously, but had received two days refresher training five months before. Her first aid kit was empty of medicines and we asked her what she would do about this; she could not **think** what to do, although knew she could get more **Jeevan Jal** and paracetamol from the Health Post.

The TBA seemed more dynamic and interested in working for the community and we had a discussion about whether we could help provide latrines; nearby communities had received help, but we wondered whether they were really motivated to build and maintain sanitary latrines. It was suggested that the ward member should set an example by starting to build a simple pit latrine in his house, but he said he did not have room. She had sold seven of her safe delivery kits and would buy more; she had only delivered two babies in the last year, relatives having been involved in delivering the other five children. There are other untrained TBAs in the community too. We briefly talked with a trained traditional healer who thought his training had been useful.

At the end of the meeting a woman approached to ask for help; she had had leprosy which had been treated and her husband had also received treatment for TB. Her four children were healthy and she was using Depo for contraception. She asked for a light job and help with her foot; Mr Koirala was able to inform her that she could get shoes (from the health post) to protect her anaesthetic foot.

Shankhu Sub-Health Post was closed for Teej but we had a brief meeting with the [female] Health Post In-Charge there. She said that they exhausted supplies of antibiotics within two-three months of the year's supply arriving. She sees 10-22 patients a day. Mr Koirala questioned the VHW (who was also present) about the poor immunization coverage. We also met another of the five Traditional Healers in the VDC who had received three days training from ADRA; he valued the training and was enthusiastic about the token system whereby if he sees a patient who he thinks needs allopathic treatment he sends the patient with a token to the sub-health post. The Health Assistant thought the system might be useful if more traditional healers used it but presently only one of the five sent tokens.

The return journey was punctuated by pauses to get the vehicle out of various muddy wallows since it had rained a little more and the bad road had become in an even worse state. While we

waited at one point for an on-coming vehicle to extract itself from a bad patch we watched women returning from worshipping at Panauti, a continuous stream of women in bright red saris.

Tuesday 17th

ADRA evaluation team: Mr. M S Koirala (DPHO, Kavre), Solomon Wako, Jane Wilson, plus Mrs. Kashi Maskey , (Project Co-ordinator, ADRA Nepal), Narayan Satyal, Pradeep Karmacharya (Field Representative).

Chalal; this is the VDC furthest from Banepa; we drove through the Kalanti Kola, along a rough road tacking along the bed of the Salandu Kola [river] by way of Ganeshtan. A lot of people attended the meeting despite the fact that some would have walked for an hour to reach the [sub-health post] where we gathered. Many people attended so that we decided to run two groups simultaneously, one for the women and one for the men. About 42 women (25 Tamang, 16 Newar) attended including Gomati Nepali (Counsellor), Prem Kumari Lama FCHV, Maya Kumari Tamang FCHV and TBA, Chomaya Tamang FCHV, Mukhmali Tamang TBA, Lal Maya Tamang FCHV, Samir Shrestha FCHV, Nani Maya Shrestha TBA, Mina Kumari Tamang FCHV, Kanchi Maya FCHV and Janaki MCH worker. VHW, Ram Krishna Thapa, also participated. We began by asking the women about immunizations and asked them to indicate how many TT immunizations they had ever received:

No. of TT immunizations	5times	4	3	2	1	0
No. of women immunized	15	2	8	2	2	12

Of the total of 41, one quarter had received no TT immunization.

We then told the trained women to keep quiet and asked the *ordinary' women about childhood immunizations; these appeared to have achieved better coverage; all of the children that we could catch (!) had BCG scars and the mothers' knowledge was fairly good on what was required. When asked about ORT they said *Jeevan Jal* was readily available and easiest to use, although they knew about cereal-based ORT. They also seemed to know about super-flour porridge, and about basic nutrition, although only one woman could say what spinach, mangoes, tomatoes and carrots (vitamin A-rich foods) protected you from. They were confident about the signs indicating serious ARI and said although they would usually first go to the *dhami jhañkri* if there was ill health, they now sought allopathic treatment promptly for anything serious. They knew about ADS.

The only child deaths in the past year were in premature infants: one unfortunate woman has just lost her seventh child around the sixth month of pregnancy; another (who has children aged 7, 3 and 2) had a still-born child this year and has since gone for sterilisation. The women were sure that their health was far better now than 10 years ago and attributed the improvement mainly to better access to health posts and allopathic medicines. They did not seem to believe that their increased knowledge helped their situation. Mothers' Groups were meeting each month in each ward.

We then gathered the FCHVs and TBAs and asked if they had any problems, and although they said that mothers-in-law had stirred up trouble for them in the past, things were improving and they were better understood. The ward members helped with this. They were managing to sell the paracetamol and *Jeevan Jal* in their medical kits. The TBAs too were reasonably successful with selling the safe delivery kits too. One TBA had made four safe deliveries and correctly referred a woman with a prolapsed umbilical cord for proper obstetric help (and perhaps surprisingly from this rather remote place the baby survived), another TBA had made two safe deliveries and a third was working on **antenatal** check-ups and so far felt too shy to deliver anyone.

The men who gathered numbered about 30 and included Ram Krishna Thapa VHW, eight 'ward members' (representatives on the VDC) plus the chairman and vice chairman of the VDC. They were asked how they might assist the FCHV and the men claimed that they could not help since they lived in a female dominated society! They said that if they received health training, they would do a better job of health education, and furthermore it would be more effective since they are unable to absorb or believe information supplied by the women! There seemed to be a touch of envy here, but even so, perhaps we have neglected the men a little.

Khopasi PHC Centre We met Dr. Kishore Kumar **Tamrakar**, his Health Assistant and other staff of the **centre** and they stated that they were pleased with the increased numbers of CHVs trained under the child survival project and also they thought that the Counsellors were useful and efficient. They talked of the funding arrangements of their clinic and about whether it was transferable. They thought that the revolving drug fund had a good chance of success if the VDCs and community were motivated. They treat about 700 patients a month, or about 30 a day and run a 24 hours emergency service which copes with about 90 out-of-hours emergencies a month.

They criticised ADRA for not communicating well about their activities; Dr Tamrakar suggested that it would be **sufficient** to keep the DHO informed and news would reach them, which implied that the task of keeping the MoH workers informed was not a great or onerous one. As we left Dr. Tamrakar asked that senior ADRA staff visit his health post more often and not only when there was an evaluation.

We drove back through the Roshi Kola [river] to Panauti, getting our feet wet as water poured inside the Land Cruiser!

Wednesday 18th September

ADRA evaluation team: Dr. B Marasini @HO), **Birendra** Pradhan, Solomon Wako, Jane Wilson, plus Narayan Satyal (Field Supervisor).

Nala Health Post

We met Sanubabu Gautam, the Health Assistant who is in charge of the health post and he told us that the health team saw **30-40**. He reconfiied the problem of inadequate supplies of medicines. He had received his supply for the half year only one and a half months before and

yet this was largely exhausted; he had no more oral antibiotics. The next supply of medicines from the government is due in December. Patients take prescriptions to the local 'medical hall' who sometimes supply what is prescribed; they sometimes supply completely different drugs eg paracetamol instead of cough syrup. He was also worried that the 'medical hall' dispense dangerous drugs like steroids to treat eye problems. Mr. Gautam talked of a mass polio immunization campaign which is being launched with two polio days scheduled for 6th December and 17 January; any and all children will be immunized. He would welcome more training particularly in the area of dental care and eye disease. A health post support committee exists but is not very active except for the vice-chairman, whom we also interviewed. Even so they have managed to collect Rs 80,000 for use by the health post. We suggested that this could start a revolving drug scheme, but the HA and committee vice-chairman seemed also very interested in building repairs and improvements.

Ugrachandi

We continued on roughly north to the Brahmin village of Ugrachandi perched on the side of a ridge. Here we met Manju Dahal (FCHV and TBA), Sarada Sigdel (Counsellor), Nirmala Dahal, Mr. Punya Prasad Dahal (a trained traditional healer) and about 25 women. They seemed a very active group who had been working to educate their men about the problems of alcohol abuse and were also trying to discourage the men from smoking and wasting time by playing cards; another campaign was against polygamy. They were a fiery group who seemed capable of influencing the local community.

A Mothers Group (of 28 women from 22 households) meets on the 4th of each **Nepali** month and collects Rs 2/- from each of the households and the money is used to help replenish the **CHV's** first aid kit, purchase a thermometer, etc. Meetings continue during the busy season but happen in the evening after work is over. The immunization team come on the 2nd of each Nepali month; these immunization sessions are often busy and as many as 60 people may receive injections. The women knew that the children should attend for immunization five times, but they seemed less certain about TT injections for the women, yet all of child-bearing age had received at least two tetanus toxoid shots, mainly through the encouragement of the CHV and Counsellor. Many had been sterilised, having decided that a family of two or **three** children was enough since there is **insufficient** land for the next generation. They talked of ARI, which is also called *Nepale lagio* (or an effect of an angry Kathmandu god), and correctly highlighted the cardinal symptoms of pneumonia. They tend to consult the *Jhañkri* first but soon seek allopathic treatment if the problem is serious. knew that AIDS is preventable but incurable. The mothers had good **knowledge** of packet and home made ORT and of super-flour porridge and when these should be used. When most of the village were struck with food poisoning during one marriage celebration recently, the **CHV** took it upon herself to buy Rs 100/- worth of *Jeevan Jal* to give to the sufferers.

We encouraged the women to put pressure on their VDC to introduce a drug scheme locally. The **CHV/TBA** requested more training to broaden the scope of her learning. She was keen to learn more about first aid treatment and home remedies for ARI.

Finally we called in on a household beneath the main village of Ugrachandi and talked to another two Brahmin families. Their knowledge was poorer and although the women in the family had been invited to the meetings they were not especially interested in attending. They clearly did not value health advice from the *Jañkri* but took treatment from a dispensary, indeed the elder daughter had been taken from a ‘medical shop’ that same day; she had a cough.

Thursday 19th September

Banepa town women group meeting. Banepa town has a total of two Counsellors, 12 FCHV and 10 TBAs. We had a lively discussion with 36 women from one ward with their FCHV and Counsellor. Although female literacy is high in Banepa, only six of those present were literate. Their knowledge on all the health issues in the ADRA health education curriculum was good. They knew the purpose of *TT khop* but less than half were fully vaccinated:

No. of TT immunizations	5 times	4	3	2	1	0
No. of women immunized	14	2	2	6	1	8

When we asked about action when children contracted ART, the mothers gave accurate responses but also said that they avoided giving *chiso khana* [‘cold’ food in the Ying-Yang sence] . The last child death in the community was three years previously when an 18 month old died of dysentery. Mothers felt sure that their families’ health was far better now than five or ten years ago and the reason for this was better access to health care facilities and medicines. Mothers’ Group meetings happen on the 25th of each Nepali month; they have thought of collecting money, but have not started yet. Their biggest concern was to find work and they asked for income-generating projects and skills training.

We visited Banepa Primary Health Care [PHC] clinic which is run by three doctors and their staff including five staff nurses who are all employed by ADRA. We talked to Dr **Lochna** Shrestha. Morale was very good and they seem to provide an excellent service. They open at 9am and registration closes at 2pm although the staff remain until 5pm. There is no emergency service. There is a registration charge of Rs 5/- for ill people consulting. On the two **specified antenatal** days they counsel and check around 70, on the immunization day the **any** inject 100 people and then there are 20-30 family planning consultations a day. ANCs give health education while patients wait. Health education videos are also run.

The pharmacy seemed well stocked, but contained nonessential drugs such as pineapple-flavoured digestive enzymes and cough syrups. The dispenser said that multiple prescribing was usual with up to five drugs being dispensed. Iron tablets from MoH supplies are distributed to pregnant mothers.

Three staff nurses were recording information on the day’s activities when we visited this day and they mentioned their desire for more health education materials especially flip&arts on nutrition. One nurse felt unconfident about her no-touch-technique to keep everything sterile during IUCD

insertion; she and the others were keen for further training to up-grade their skills, especially on Nor-plant.

All the staff agreed that their biggest problem was lack of space in the clinic; the doctor asked for an area to do 'dirty' minor obstetric operations and other small procedures. The staff nurses also suggested separately that their work would be easier if they had more space. Sometimes there are so many people waiting that they cannot see the health education videos.

Friday 20th

ADRA evaluation team: Dr. S S Jha, Birendra Pradhan, Jane Wilson, plus Narayan Satyal.

Rabi-opi village

We visited households in this village perched high up on the ridge above the agricultural land around Panchkhal and our first two informants were Brahmin women who had participated in the post-literacy course. The first mother had four daughters and her husband had recently had a vasectomy and the second had one daughter and two sons and had undergone mini-laparotomy sterilisation. The women had good knowledge of health although did not suffer from much diarrhoea so did not need to use *Jeevan Jal* or home rehydration solutions. They did know about super-flour porridge and one mother had given in twice, but the child did not like it much. Her youngest daughter was one year old and very small and we suggested that she should try feeding her this several times a day, and also consider a trip to the Banepa clinic for a vitamin A capsule. When we discussed the fact that so many of the children were underweight, the mothers said 'Thinness is normal here. Just look at the literacy teacher; he is also thin!'

The two mothers had attended the mothers group meeting only a few time because they were held rather far away, and they were rather busy. At first the father of the four daughters did not like his wife going to the literacy classes because he had to look after the children, but now he appreciates the value of it and will be supportive if other classes are started. She said that before she scolded the children when they said their school work was hard - now she agrees with them!

We called in on two other Brahmin households where although there were not many attenders of the mothers group meetings, they had some knowledge of health. The children were all rather underweight and several had the **hyperkeratotic** rash of vitamin A deficiency. Wild stinging nettles (*sisnoo*) grew around but are not eaten by Brahmins, yet these are rich in vitamin A, etc. Most of these Brahmins cultivate land one hour's walk away down in the valley bottom near Panchkhal, but they prefer to live high where it is cool and there is no malaria. Even the high caste Brahmins here are very poor and worthy recipients of the projects' help. The villagers are troubled by various chronic illnesses including gastric irritation and one woman had a huge goitre which she was keen to have surgically removed but her sons were against an operation. One of the women had received Nor-plant and subsequently persuaded five other women that this was a good method and so they also went to Banepa for Norplant.

Next we visited a Tamang household where only young children and an old grandmother were at home; none could tell us much and none of the children had BCG scars. At another Tamang household we met a garrulous grandmother whose youngest **child** was nine and she was also caring for a six year old grandson whose parents live in Kathmandu. She told us that in Tamang too there are some restrictions on eating nettles (they are considered poor peoples' food) and nettles may not be cooked inside the house or the household god will become angry; when asked where this god lived she said 'How do I know; you can't see the gods!' She did not go to mothers group meetings because she forgot to go. She did comment on the modern new development of Safe Delivery Kits, saying that she had just delivered on the floor of her house and now women gave birth on a clean plastic sheet.

We met **two** FCHVs by **the** shop (which stocks *Jeevan Jal*) in Rabi-opi and one told of a recent death from marasmus (malnutrition). This area has few spare resources and the people both high and lower caste are struggling to survive, yet they are quite close to Banepa, perhaps 35 minutes drive over a very rough road. An old man complaining of vertigo asked us for medicine and when Dr Jha suggested he went to Banepa for a check-up, the man said he did not like to go because 'Banepa is like India!'

Monday 23rd

ADRA evaluation team: Dr S S Jha, Dr. B Marasini, Birendra Pradhan, Solomon Wako and Jane Wilson.

FPAN

Meeting with the committee members of the Family Planning Association of Nepal in Banepa who discussed frankly their concerns about ADRA over-shadowing their work. They had few resources and felt ill-informed about **ADRA's** activities. The mobile clinic van attracts many clients away from FPAN clinics. They wanted to re-institute the regular planning **meetings** between all NGOs working in the area of family planning; these petered out about six months ago. FPAN works in 12 VDCs in Kavre District and in the six months January to June 1996 distributed 1647 condoms, pills to 1501 women and gave 1345 Depo injections.

We called in briefly on Mr. K P Joshi the FPAN health assistant who was in the process of giving one woman a Depo injection. Such FPAN health staff also see and treat **ill** patients and can dispense from (in this case) a well-stocked medicine cabinet containing a fair range of antibiotics and other essential drugs, but there were also two kinds of cough medicines of questionable therapeutic value. Patients are charged at reasonable price for any medicines. FPAN also have outreach clinics which operate one day a week in 12 villages; these are run by one staff nurse in each.

Red Cross

We visited the Kavre District branch office of the Nepal Red Cross in Banepa and had a discussion with the president of 26 years standing, Mr. Samudra Lal Shrestha. He talked of the various

activities which had been undertaken jointly with **ADRA** and looked forward to further fruitful collaboration. The last non-formal literacy co-ordination meeting was held two months previously at the Red Cross office. Mr. Sarnudra Lal Shrestha did not think that there was much of a problem of space in the Red Cross buildings.

We asked about the clinic at Panauti which is run by the Red Cross. Red Cross has no money and cannot pay the staff which run the clinic and so the health worker (who usually is not fully trained; not as well trained as a health assistant). The local staff therefore takes what profit he can from medicine sales, which might explain why expensive unproven tonics are prominently displayed in the clinic. He makes Rs 300 - 500/- profit per month and so works only part time. The Rs 2/- registration fee does not go to him. Red Cross are asking for support from ADRA to improve this health facility.

District Education Office, Dhulikhel: The DEO, Mr D R Upadhya, gave us a little of his time, but was too busy to discuss much in full. He thought that generally literacy programmes were not useful or sustainable, although he was enthusiastic about the broadness of **ADRA's** literacy programme. He appeared not to know much about **ADRA's** activities, but was not interested now since he said that his department was no longer running non-formal literacy programme; this year these were being run by PACT, an international NGO. The DEO's disinterest is most unsatisfactory

District Health Office (Dhulikhel) visit

Dr. Baburam Marasini told us that he feels that ADRA has made a significant contribution to antenatal care of village women, and also to education relating to child immunizations. He also stated that diarrhoea incidence is decreasing, but he does not know why. Perhaps this is a result of health education. He looks forward to more information coming back about deliveries by trained **TBAs**. He feels that there are great differences between health achievements within and without the ADRA parts of the Kavre district. Dr Marasini feels that within the ADRA area the quality and activity of CHV is far better and all health issues embraced by ADRA are better understood.

Since he came to Kavre 15 months earlier, ten new sub-health posts have been built and are being staffed. And the local health statistics seem good: IMR is 64 (1991 estimate).

We discussed the problem of medicine supplies earlier and during this meeting and Dr Marasini predicts that the elections scheduled for April 1997 will wreck the chances of the rotating drug fund scheme succeeding this year - VDC members will be seen to be stopping the albeit limited supply of free government medicines and, fearing political unpopularity, may not want to implement this.

APPENDIX 4

Subject Areas for Focused Group Discussions with Various Villagers

4 : Subject Areas for Focused Group Discussions with various villagers

Mothers (rural/urban/ex-literacy classes)

Have you all had **TT**; how many? (Is the apparently poor TT uptake real?)

When should **ORT** be given?

Is Jeevan Jal available locally; where from? how much?

What home solutions are good in diarrhoea?

Know about super-flour porridge?

Opinions on feeding small children during diarrhoea

Opinions on feeding small children immediately after diarrhoea

Childrens' Immunization schedule - how many kinds of immunizations?

How many visits to immunization sessions?

What do green vegetables, mangoes, carrots, tomatoes, etc protect your child from?

Is **AIDS** curable? Is it preventable?

Serious **ARI** - Check they know the two cardinal danger signs

When is it important to seek help with **ARI**

Who is the most useful person to consult?

Is the pharmacist a reliable source of advice?

Ask about child deaths in the last year. What was health like 10 years before?

Are Mothers' Group meetings going on regularly?

Encourage discussion on impressions of past and present health status and reasons for any change.

Check all children for **BCG** scars.

If mothers' knowledge seems poor we will go on to interview the health workers and get a feel for their knowledge levels; if knowledge seems reasonably good we will focus only on more practical issues.

CHV (similar questions can be asked of the **VHW** if available)

Regular Mothers' Group meetings going on?

Serious **ARI** - Check they know the two cardinal danger signs

When is it important to seek help with **ARI**

Who is the most useful person to consult?

Is the pharmacist a reliable source of advice?

What is diarrhoea?

When should **ORT** be given?

What home solutions are good in diarrhoea?

Opinions on feeding small children during and after diarrhoea

Immunization schedule - how many kinds of immunizations?

Vit A

Is AIDS curable?
Replenishing the ORT and first aid supplies
Expectations of the VHW - do you work together?
Expectations of the counsellor

TBAS

Did you work as a TBA before?
How many deliveries have you performed in the last year?
Safe delivery kit replenishment - any problems?
Main problems
Training useful?
Anyone else delivering babies locally?
What do you need to do for children with diarrhoea?
If a child has *koka hanna*/indrawing what do you advise?
What do you know about AIDS?

VDC representative or Ward member
Replenishing the ORT and first aid supplies; how can you help the TBA and **CHV**?
Safe delivery kit replenishment
Interest in supporting community volunteers
Image of **ADRA** - part of MoH?
Role of CHV?

Counsellors

Any problems or dissatisfactions?
How strong are the nine CHVs you work with?
Do Mothers' Group meetings happen regularly in all nine wards?
What activities do you promote?

Doctors and clinical health workers

What is the biggest problem you face?
How often can you not prescribe the correct drugs for serious ARI?
Is multiple prescribing by others a big problem?
Can it be controlled?
Will the revolving drug fund work? What might compromise it?

APPENDIX 5

Itinerary of the Evaluation

5 : Itinerary of the Evaluation

Friday 30 August	JW met briefly with Mekebeb Negerie of ADRA International plus Birendra Pradhan (BP) who delivered a first draft of the Baseline Survey. Following this JW perused project documents: DIP, two annual reports, mid-term review, endline survey, scope of work, child survival evaluation guidelines etc.
Monday 9th Sept	Discussions at Banepa and planning JW, BP and Dr PK Jha. Dr Jha only available for three hours. Discussion with Dr. Rajendra Gurung and Mrs. Kashi Maskey staff nurse and Project Co-ordinator. Visit to operating theatres, mobile clinic vehicles, PHC clinic; review of some curricula of health education materials.
Tuesday 10th	Detailed review of all project documents by JW (other team members not available) and assessment of statistical data. Solomon Wako (SW) arrived late evening.
Wednesday 11th	Field trip to Panchkhal Health Post; interviewed Health Assistant Mohan Subedi and Chetnath Kafle Community Medical Auxiliary and saw immunization and curative clinics in progress; saw two of the three private dispensaries close to the clinic. Then to Mahadevsthan Village, perhaps 30 minutes walk from a very rough unmetalled road. Here we ran a focused group discussion with about 25 Brahmin/Chhetri women and 10 men. The TBA (Devi Sapkota) and local Counsellor (Sita Sapkota) were present and contributed. Then finally we met literacy class participants in the Panchkhal Danuwar community; we conducted a focused group discussion amongst 24 women.
Thursday 12th	To Taukhal village, about 20 minutes from the road, where we met TBA Santosi Basnet, CHV Bharabi Khardka, Ward Member Jit Bahadur Basnet, and Counsellor Naren Devi Shrestha. About 12 women gathered, all Chhetri caste. Thence to Malpi where we met CHV Chinu Thapa, TBA Rada Basnet, Counsellor Santi Basnet and 14 women; visited the Red Cross clinic in Panauti .
Friday 13 Sept	Nationwide strike and ban on all vehicular traffic so no fieldwork was possible. Wrote up field notes, etc.
Monday 16th	Met with Mr. Suman Gunmg, Training Officer, ADRA, Nepal and travelled to Shankhupatichaur village; focused group discussion with 35 Tamang women; visit to Shankhu Sub-Health Post; met the Health Assistant, VHW and one trained Traditional Healer.

Tuesday 17th	Meeting with a review mission from USAID visiting ADRA Nepal and then were briefed by Mrs. Kashi Maskey, Project Co-ordinator, ADRA, Nepal who accompanied us on a field trip to Chalal VDC and the Khopasi PHC Centre.
Wednesday 18th	Ugrachandi VDC village visit and three focused group discussions with the women and another with the men, plus with the village volunteers. We called in on another group of two households and continued discussions here with people who did not attend Mothers Groups. Finally we visited Nala Health Post and had a discussion with the staff there.
Thursday 19th	Focused group discussion with an active Mothers' Group in Banepa municipality and consultation with the mother of a blind child. Visit to Banepa PHC clinic.
Friday 20th	Visit to the village of Rabi-opi to the homes of women who had attended literacy and post-literacy classes. We had discussions with Brahmin and also Tamang mothers.
Monday 23rd	Meetings with Family Planning Association of Nepal Banepa Office . Mr. Samudra Lal Shrestha President of the Nepal Red Cross Society, Kavre Chapter. District Education Officer , Mr D R Upadhyia. Visit to the District Health Office, and discussion with the district chief, Dr. Baburam Marasini.
Tuesday 24th	Meeting with Charles Llewellyn, Deputy Chief, Office of Health and Family Planning of USAID and Barbara Winkler, technical advisor. Attempt to meet Mrs. Vijaya KC, head of the National Health Training Centre, Teku. Further review of survey and MoH statistics.
Wednesday 25th	Steve Hunt, Team Leader, Nepal-Australia Forestry Project, Sanepa. Dr K R Pandey, Director General, Dept. of Health Services, Teku. Mrs. Vijaya KC, Head of the National Health Training Centre, Dept of Health Services, Teku.
Thursday 26th	Writing up and presentation to ADRA staff
Friday 27th	SW flies out (in the morning). Further discussions on sustainability between JW and BP; Writing up.
Monday 30th Sept	Report writing

Tuesday 1st Oct writing

Wednesday 2nd Oct Meeting and detailed discussions with Mr Paul Dulhunty, Country Director ADRA Nepal. Presentation of evaluation report.

Thursday 3rd Brief meeting with Mr Paul Dulhunty .

Monday 7th Oct Further meeting with Mr Paul Dulhunty and Mr Birendra Pradhan at ADRA Nepal's **Kathmandu** office and discussion relating to the evaluation and report. A few minor amendments made to report in the light of further information and input from the ADRA country office.

Tuesday 8th Further comments received from Birendra Pradhan.

Wednesday 9th Changes made to evaluation document in the light of these further comments. Final report delivered to ADRA country office.

APPENDIX 6

People Interviewed During the Evaluation

6 : People Interviewed during the Evaluation

Friday 30 August	Mekebeb Negerie of ADRA International
Monday 9 Sept	Dr. Rajendra Gurung and Mrs. Kashi Maskey staff nurse and Project Co-ordinator. Operating theatre staff nurses and staff of PHC clinic.
Wednesday 11	Panchkhal Health Post: Health Assistant Mohan Subedi, Chetnath Kafle Community Medical Auxiliary and various patients and vaccines young and older. At Mahadevsthan Village: TBA (Devi Sapkota) and local Counsellor (Sita Sapkota); a focused group discussion with about 25 Brahmin/Chhetri women (several came and went during the meeting) and 10 men. Literacy class participants in the Panchkhal Danuwar community numbering 24 women.
Thursday 12	Taukhal village: TBA Santosi Basnet, CHV Bharabi Khardka, Ward Member Jit Bahadur Basnet, and Counsellor Naren Devi Shrestha. About 12 women gathered, all Chhetri caste. At Malpi we met CHV Chinu Thapa, TBA Rada Basnet, Counsellor Santi Basnet and 14 women; visited the Red Cross clinic in Panauti but no-one was present.
Monday 16th	Mr. Suman Gurung, Training Officer, ADRA , Nepal. At Shankhupatichaur village: Antari Tamang TBA, Santi Maya Shrestha FCHV, the VDC vice-chairman, one ward member, one trained Traditional Healer and 35 women participants. Shankhupatichaur Sub-Health Post: Health Assistant, VHW and another trained Traditional Healer.
Tuesday 17th	Review mission from USAID; Mrs. Kashi Maskey , Project Co-ordinator, ADRA , Nepal. At Chalal VDC: 42 women (25 Tamang, 16 Newar) including Gomati Nepali (Counsellor), Prem Kumari Lama FCHV, Maya Kumari Tamang FCHV and TBA, Chomaya Tamang FCHV, Mukhmali Tamang TBA, Lal Maya Tamang FCHV, Samir Shrestha FCHV, Nani Maya Shrestha TBA, Mina Kumari Tamang FCHV, Kanchi Maya FCHV and Janaki MCH worker. A similar number of men engaged in a separate parallel discussion. Ram Krishna Thapa VHW. Dr. Kishore Kumar Tamrakar, his Health Assistant and other staff of the Khopasi PHC Centre .
Wednesday 18th	Sanubabu Gautam, Health Assistant in charge of the Nala Health Post. Ugrachandi VDC village: Manju Dahal (FCHV and TBA), Sarada Sigdel (Counsellor), Nirmala Dahal, Mr. Punya Prasad Dahal (a trained traditional healer) plus about 25 village women. Members of two further Brahmin households including people who did not attend Mothers Groups.

Thursday 19th 36 members of an active Mothers' Group in Banepa municipality and the mother of a blind child. At Banepa PHC clinic: Dr. **Lochna** Shrestha and her three staff nurses and the dispenser.

Friday 20th Visit to the village of Rabi-opi to the homes of women who had attended literacy and post-literacy classes, plus others. We had discussions with Brahmin and also Tamang mothers. Two local FCHVs.

Monday 23rd Staff of the Family Planning Association of Nepal **Banepa** Office.
Mr. K P Joshi the FPAN health assistant at Banepa.
Mr. Samudra Lal Shrestha President of the Nepal Red Cross Society, Kavre Chapter.
Mr D R Upadhya, District Education Officer, Dhulikhel.
Dr. Baburam Marasini, chief of the District Health Offke, Dhulikhel.

Tuesday 24th Charles Llewellyn, Deputy Chief, Office of Health and Family Planning of USAID and Barabara Winkler, technical advisor.

Wednesday 25th Steve Hunt, Team Leader, Nepal-Australia Forestry Project, Sanepa.
Dr K R Pandey, Director General, Dept. of Health Services, Teku.
Mrs. Vijaya KC, Head of the National Health Training Centre, Dept of Health Services, Teku.

Wednesday 2nd Ott Mr Paul Dulhunty, Country Director ADRA Nepal

Monday 7th Ott Mr Paul Dulhunty and Mr Birendra Pradhan

Tuesday 8th Mr Birendra Pradhan.

APPENDIX 7

Health Messages in the Literacy Syllabuses

7 : Health Messages in the Literacy Syllabuses

Literacy curricula have been designed to parallel and complement the information held and communicated by the FCHVs. For the initial literacy curriculum see the **final** two pages of the Second Annual Report (dated October 1995)

Continuing on from the **initial** literacy course is a **Post Literacy Course** which is outlined below.

1. Clean households
2. Immunization
3. Literate women (and what they can achieve)
4. Forest - importance to our lives
5. Small families are happy families
6. Mothers ' groups
7. FCHV the role of the Female Community Health Volunteer - her responsibilities and the community 's
8. Antenatal care and the role of the Traditional Birth Attendant
9. Green Hill (about soil conservation)
10. Daughter of Suphatra : nutrition, super flour porridge, vit A.

APPENDIX 8

Population

**8 : Population distribution according to mother tongue
Census for Kavreplanchok**

	1981	1991
Nepali	194,853	171,959
Tamang	72,042	104,337
Newar	29,611	39,756
Rai, Kiranti	1,723	681
Maithali	1,668	238
Danuwar	1,280	3599
Magar	648	2303
Santal	426	1
Gurung	461	169
Bhote, Sherpa	237	335
Bhojpuri	206	109
Rajbansi	134	24
Sunwar	71	
Abadhi	68	12
Thakali	53	11
Tharu	31	30
Satar	11	4
Limbu	10	58
Hindi/Urdu		66
Thami		22
Bengali		6
Majhi		381
Dhimal		3
Others	3,617	189
Totals	307,150	324,329

APPENDIX 9

A Note to Explain Caste

9 : A note to explain Caste

The caste system is important in influencing social development in Nepal. The dominant ethnic group throughout Nepal, comprising perhaps half of the population, are the Brahmins and Chhetris, an Aryan group who probably moved into Nepal from India. They consider themselves high caste. The highest in the hierarchy are the Brahmins or the caste of priests; second in the hierarchy come the Chhetris, originally the warrior caste, and the group to which the present king belongs.

Other ethnic groups have separate and distinct hierarchies which may or may not be respected by the Brahmins and Chhetris. High caste Newars, formerly the dominant group in the Kathmandu Valley, are treated with respect by their fellow priests. Hill 'tribes' and other smaller ethnic groups are considered beneath the Brahmins and Chhetris so that the Tamangs (with Mongolian racial links), who often live close to high caste Hindus in the project area, may seem to be treated as their inferiors. Interestingly, though, the high caste villagers have restrictions to their lives, like for example, they feel that eating nettles is beneath them and so they miss out on a good source of vitamin A. High caste people feel they cannot engage in some kinds of work so employment opportunities are less.

Lower still in the hierarchy come the untouchable caste: tailors, blacksmiths, shoe-makers and cleaners and sweepers. Caste has nothing to do with wealth. Plenty of high caste people are poor and innumerable lower caste people are rich.

APPENDIX 10

A Possible Problem with Mosquitoes

10 : A possible problem with mosquitoes?

The CS IX project did not include any activities directed at controlling malaria, and yet Kavre has the highest prevalence of malaria of any district in the country. Fortunately the local malaria is the relatively mild *Plamodium vivax*.

This appendix is a note suggesting that future development activities could make the malaria problem worse still. Promotion of smokeless stoves in the low-lying Panchkhal and neighbouring areas could possible make the malaria situation worse since smoky environments discourage mosquitoes. Could Japanese encephalitis become a new problem locally?

Many malaria carrying mosquitoes will preferentially bite large animals like cattle and although moving cattle away from the domestic environment should reduce diarrhoeal disease, giardia, flies etc., it may increase malaria.

It is worth keeping these issues in mind ~~since~~ Kavre has the highest prevalence of malaria in Nepal and the disease (particularly the dangerous *falciparum* form is also making a come-back in the Nepali *terai* (lowlands bordering India). For future work it would be worth consulting a local entomologist who could say when the local malaria vectors bite (are they 'ends of the night' or 'middle of the night biters'?) and whether they **will** preferentially will bite cattle rather than man (unless deprived of their favourite food). If Japanese encephalitis is a problem then another whole range of issues come up. Presumably some of these issues will be more of a priority in the WHIN project areas, many of which are at low altitude? I understand that there was a bednet trial in Sindhupalchok, the district next to Kavre, but I do not know the result.

APPENDIX 11

Pipeline Analysis

APPENDIX 12

Child Survival IX Final Baseline Survey