CHAPTER III

A project proposal: Participatory Action Research to increase the number of caretakers who bring their child with fast breathing in time to a trained health worker

3.1 Preface

This project proposal has been written to address problems related to Acute Respiratory Infections (ARI) and more in particular pneumonia. The core problem it wants to address is caretakers often presenting their children with fast breathing too late to a trained health worker. This project proposal has been written from a Primary Health Care Management perspective in the developing world. It is assumed that the initiative to draft this proposal comes from the management of an existing Primary Health Care programme with well established contacts with authorities and other groups in the area, and whose catchment area includes the target population. It has no concrete setting in mind, but it can be implemented in any situation where communities have limited access to resources.

3.2 Introduction

Pneumonia is the single biggest killer of children in the developing world. Yearly, it kills about three million children under five. Yet, many of these deaths can be avoided. One condition is that case management with oral antibiotics becomes more widespread. (International Conference on ARI, 1997) However, effective case

management goes beyond appropriate intervention by trained health workers in the facilities. The caretakers should be mobilized as well; they should bring their children in time to a trained health worker. But this implies two things: first, they should recognize the danger signs of pneumonia, and second, they should be able to reach the health services.

Fast breathing is one of the danger signs of pneumonia in children less than five. It is an early sign of severe pneumonia. Some authors state that it is the single best sign that a child has pneumonia (Malik Kundi et al.,1996). Caretakers should learn to recognize fast breathing in their child and seek immediate health care from a trained health worker (Iyun & Tomson, 1996).

Attempts have been made to reach communities in developing countries by developing health education messages, adapted to their specific cultural background. Such health education messages use locally understood terms for the danger signs and symptoms to watch for when a child is sick (Hudelson et al., 1995). But what if caretakers eventually do recognize fast breathing and are convinced of the necessity to seek prompt assistance from a trained health worker, but cannot take the hurdles on the road to the health facility? Indeed, lack of transport or long distances to health facilities, social environment, cultural practices, high costs of medical care, all may contribute to delays in seeking health assistance from a trained health worker, or not seeking assistance at all (Malik Kundi et al., 1993; Hudelson et al. 1995; McNee et al., 1995). Therefore, health education messages, even based on caretakers' own

perceptions of ARI, will not help if caretakers cannot reach the health center due to the practical obstacles as stated above.

A strategy that tackles simultaneously the caretakers' knowledge gap and the practical obstacles in their way is required. In such a strategy, health education should be linked to training the caretakers in life supporting skills. Only if the caretakers are able to upgrade their knowledge about pneumonia, and at the same time acquire the skills that help them to tackle practical problems that prevent them of applying what they have learned in health education sessions, will they be able to reach the health facilities on time and so contribute to reducing ARI-related morbidity or mortality.

Participatory Action Research (PAR), in which people combine learning with action for improvement of their lives, is a strategy that allows the link between health education and training in life supporting skills. PAR helps community members to (1) identify concrete problems, (2) to learn about the factors causing ARI, and more specifically pneumonia, and (3) to solve problems that are obstacles in the way to prompt health care seeking.

PAR has been applied in Zaire with some degree of success to assist women to acquire knowledge about transmission modes of HIV and protection methods against transmission, as well as to find solutions to practical obstacles (Schoepf, 1993). The project proposed in this document covers similar intervention needs: the need for health education and training to develop life and problem solving skills. It is proposed to use the PAR methodology to assist caretakers of children aged less than five, to upgrade their knowledge related to ARI, and to improve their skills, so that they are

better prepared to develop strategies that help them overcome practical obstacles when bringing their children to a trained health worker.

The target group of this project is all women up from 15 in a relatively small community, referred to as "the community". The aim of the project is to reduce pneumonia-related mortality in children less than five in the community, as well as overall ARI-related morbidity in the same age group.

The project will run over two years and contains three intervention components. First, there will be a baseline study. Second, there will be an intermediary phase in which the participants to the PAR project will be selected. Third, there is the PAR intervention itself with its three strategies: (1) health education on causes, manifestations, and treatment of ARI, and more in particular of pneumonia, (2) development of life supporting skills, and (3) training in function of problem solving.

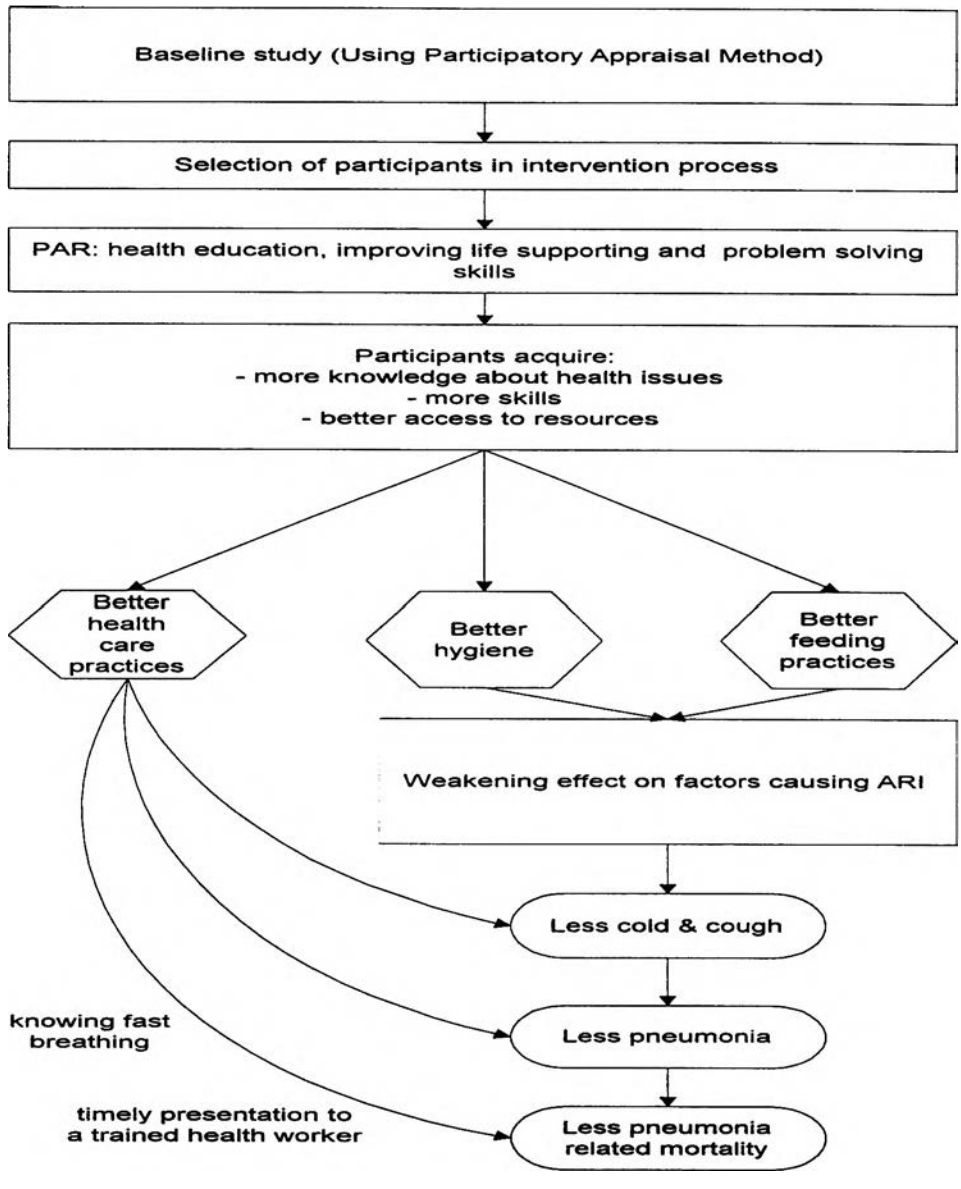
Figure 3.1 illustrates how the implementation of the project can realize the aim of reducing pneumonia-related mortality and overall ARI-related morbidity in children less than five in the community. The baseline study will be carried out to support the PAR process. It aims at (1) understanding the factors that influence the set-up of a PAR programme involving the target group, (2) providing data that are relevant to the health education activities, (3) setting indicators to measure programme outcome and impact.

The PAR process will go ahead after selection of a group of participants who will be given a pre-test. A post-test will conclude the PAR process. Participants will

benefit from the PAR process by acquiring more knowledge about health issues, building more life supporting skills, and increasing their access to resources. This will enable them to improve their health care practices, hygiene, and feeding practices.

Better hygiene and feeding practices will weaken the effect of ARI causing factors, which, together with better treatment practices, should result in a decline of the incidence of ARI (and pneumonia in particular). Reduced incidence of pneumonia, recognition of fast breathing, and timely presentation of children less than five with fast breathing to a trained health worker, should result in a reduction of pneumonia-related mortality.

Figure 3.1: PAR as a tool to empower caretakers of children less than five to act upon the factors causing ARI in their environment, and reducing pneumonia-related mortality



3.3 Objectives

The objectives of this study are:

a) To increase the numbers of caretakers who bring their children aged less than five with fast breathing on time to a trained health worker

b) To increase the numbers of caretakers who master correct hygienic and feeding practices

c) To increase the numbers of caretakers who master correct treatment practices for ARI

d) To acquire an understanding of predisposing and behavioural factors that cause ARI in the community

e) To acquire an understanding of socio-economic factors that may influence caretakers' participation in the project (as a condition to make the project sustainable)

3.4 Methodology

The PAR method will be used for the main component of this project, an intervention aimed at enhancing participants' knowledge of health issues and developing their life supporting skills. The PAR intervention will be supported by a baseline study, using the Rapid Participatory Appraisal method. The project outcome evaluation will be done using a pre-test/post-test.

Five distinct phases can be discerned in this project. The project will start with a baseline study. Then, the participants who will cooperate in the PAR process will be selected. This will be followed by the PAR process itself. When the PAR process comes to a conclusion, a project outcome and impact evaluation will be held.

3.4.1 Baseline study

a) General principles

The baseline study will be carried out to support the PAR process. It aims at (1) understanding the factors that influence the set-up of a PAR programme involving the target group, (2) providing data that are relevant to the health education activities, (3) setting indicators to measure programme outcome and impact. The expected outcome of the baseline study will be: knowledge of environmental and behavioural factors that can contribute to the incidence of ARI in children in the community, and knowledge of opportunities and potential obstacles in setting up a PAR programme with women above 15 in the community.

The method of Rapid Participatory Appraisal (RPA), described in Annett & Rifkin (1995), will be used to identify social, political, and economic factors in the community that may affect the set-up of the project, and to secure the inclusion of the communities' perceptions of issues and problems in the data collected. RPA is the process in which a team of programme members and community representatives carry out a survey of the needs of a community. The aim is to acquire information on general needs of and problems in a community, as a basis to plan services. There may be a

need to further study the extent of problems that are discovered during the RPA, using other research methods. Data collection methods used in the RPA are documents, interviews, and observations. Using three different sources prevents dependence on one single source, and allows to cross-check information (triangulation). See Appendix 3.1 for details on the proceedings of the baseline study.

b) Variables under study and data collection tools in the baseline study

The baseline study will provide information on: (1) the settlement conditions of the community, (2) risk behaviour with regard to ARI, (3) morbidity and mortality related to ARI, (4) community profile, (5) the different organizations in the community, (6) target group profile.

This information will be categorized, as follows:

- factors conducive to ARI,
- people's ability to carry out changes in their physical environment to avert negative effects,
- possible obstacles to the project related to the social composition of the community,
- presence of resources that can be accessed for the project, of women's skills, such as literacy,
- possible obstacles to women participating in a PAR project.

For each category a number of indicators will be established. These indicators will be used as a tool to draw conclusions about such topics as the main factors conducive

to ARI in the community, or possible obstacles to the set-up of a PAR process. Once these conclusions have been drawn, strategies can be designed for use in the set-up or the implementation of the programme. For example, appropriate tactics can be developed to access the target group, or rally support for the programme from influential groups or organizations, or appropriate health education lessons can be developed for use in the problem-posing phase of the PAR process (see section 3.4.3).

The data collection tools will be: (1) consultation of documents of other organizations, (2) semi-structured interviews, and (3) observation. More details are provided in Appendix 3.2.The variables, data collection tools used to measure them, and indicators are discussed more in detail below.

1. Settlement conditions of the community

Amongst the variables under study will be: the number of people in one dwelling, the number of people who have access to safe water, adequacy of housing protection against climatic hazards, inhabitants' ability to induce changes in housing conditions, cooking habits, types of access to safe water (tap, well, etc.), methods of disposal of excreta, methods of disposal of solid waste (Annett & Rifkin, 1995).

Data collection methods:

i) consultation of documents: city council plans, reports, etc.

ii) semi-structured interviews with key-informants: open-ended questions will be used, relating to issues such as construction materials and state of the

dwellings, average number of people under one roof, presence of separate bathrooms, modes of access to clean water, inhabitants' ability to induce changes in housing conditions.

iii) observation: an observation list will be used to record units of relevant variables (Bouma, 1993) such as type of household structure, conditions of walls and roofs...

Indicators of factors conducive to ARI:

- house constructions giving inadequate protection against climatic conditions
- sources of indoor air pollution, such as cooking, smoking, incense, etc.

Indicators of people's ability or inability to carry out changes:

- people renting their houses and contractually not entitled to carry out structural changes in their houses

2. Risk behaviour with regard to ARI

Amongst the variables under study will be: exposure to environmental health hazards, breastfeeding practices, diet, vitamin A intake, hygiene, the number of children sleeping in one room, etc. (UNICEF, 1993)

The data collection tools will be:

i) documents: reports from health facilities, health authorities, or other health agencies

ii) semi-structured interviews with key-informants: open-ended questions will be used, relating to issues such as diet, breastfeeding practices, sleeping space for children, local names of ARI and pneumonia in particular. (Scrimshaw & Hurtado (1987); UNICEF (1993); Upayokin, Dendoung, Muttiko & Ukoskit (1991); Agyepong, Aryee, Dzikunu & Manderson (1995); Annett & Rifkin, (1995)

iii) observation: an observation list will be used to record units of relevant variables (Bouma, 1993) such as presence of open fire places for cooking inside the houses, people smoking inside the houses in the presence of children, the way children are dressed.

Indicators of factors conducive to ARI:

- people living near a source of air pollution
- people cooking on an open fire inside the house
- people smoking inside the house in the presence of children
- children at night not well protected against the cold
- children sleeping on the ground
- different children sharing one bed at night

3. Morbidity and mortality related to ARI

The variables under study will be: death related to pneumonia, death associated with acute cough and fever, non-fatal cases of pneumonia.

The data collection tools will be:

i) documents: morbidity and mortality figures from health facilities

ii) semi-structured interviews: key-informants, representing different residential clusters, will be interviewed to elicit information on child deaths in their residential cluster. The method used will be adapted from "verbal autopsy", a semi-structured interview with caretakers of children who have died in the past, aiming at clarifying the symptoms associated with its decease (Aga Khan Foundation, 1993). The aim will be to obtain figures on cases of death associated with acute cough and fever (see also section 3.4.5, Programme impact evaluation).

4. Community profile

The community profile describes the main groups in the community, their common or conflicting interests, and general patterns of interaction. Amongst the variables under study will be: different groups in the community (social, religious, ethnic, etc.), leaders and influential persons in groups, history of conflict or competition for resources, cultural practices (e.g. related to gender differences), literacy, income generating activities, etc.

Data collection exercises will be:

i) documents: city council reports, reports or publications from organizations, reports from development agencies

ii) semi-structured interviews: open-ended questions will be used, relating to issues such as the presence of different groups in the community, their leaders, their relationships, competition for resources, economic activities, history of conflict, gender relations, etc. Informal conversations with key-informants in appropriate settings (e.g. places of entertainment, markets, etc.) may be used as well (Patton, 1990; Stringer, 1996).

iii) observation: unobtrusive observation in public places should give information on issues like segregation amongst different social or ethnic groups. etc.

Indicators of possible obstacles to start a PAR process:

- Issues of contention between groups in the community, having led in the recent past to violence

Indicators of opportunities to start a PAR process:

- Alliances between groups, or agreements of cooperation

5. The different types of organizations in the community

Amongst the variables under study will be: types of organizations, purpose and activities, membership, founders, dominant groups in organizations, funding/resources.

Data collection tools will be:

i) documents: city council reports, reports or publications from organizations, reports from development agencies

ii) semi-structured interviews: open-ended questions will be used, related to issues such as the presence of organizations in the community, their purpose and activities, membership, founders, dominant groups or persons in the organizations, funding/resources, etc.

Informal conversations with key-informants in appropriate settings (e.g. places of entertainment, markets, etc.) may be used as well (Patton, 1990; Stringer, 1996).

Indicators of obstacles to the PAR process:

- rivalries between organizations leading to refusal to cooperate, or to pursue same goals separately

Indicators of opportunities for the PAR process:

- organizations who conclude agreements for cooperation
- presence of resources (funds, materials, people with certain skills) that can be potentially accessed

6. Target group profile

Variables related to the target group will include: women's own income generating activities, ability to spend money on household, autonomy to make decisions (such as those related to household spending, to health care of the

children, to their leisure time), literacy level, communication patterns with partners, etc.

Data collection tools will be:

i) documents: reports or publications of women's organizations, to explore topics of interest by the target group, problems, means of action, organizational structure, decision-making patterns, etc.

ii) semi-structured interviews: members of women's associations will be interviewed to collect data on the above mentioned topics.

iii) observation: unobtrusive observation in public places should give information on types of behaviour due to gender differences, segregation amongst different social groups, etc.

Indicators of women's ability to participate in the PAR process:

- women having their own organizations and activities
- women allowed to make decisions about how they spend their leisure time
- women having their own income generating activities and being able to spend the money for their own purposes
- women allowed and having time to educate themselves

3.4.2 Preparatory phase before start PAR process

a) Selection of participants in the PAR process

All women up from 15 years are eligible for participation, which is on a voluntary basis. All candidates will be amply briefed on purpose and methods of the project (as described in Jongpiputvanich, Veeravongs & Wongsekiarttirat, 1991). Inclusion will occur only if the candidate expresses a commitment to participate and to be present in most sessions in a period of two years. Candidates need to realize that this is a long period and that they will have to devote some of their time to the project. This can be considered a resource commitment from the participants (Gow & Vansant, 1983). The participants should also accept a pre- and a post-test.

b) Participants profile survey

A questionnaire (structured interview) will be used for personal data collection. Data elicited will include marital status, income, education, number of children in household, age, etc. as described in Jongpiputvanich, Veeravongs & Wongsekiarttirat, 1991). See Appendix 3.3 for an example.

c) Pre-test

A pre-test will be conducted as a basis to evaluate the programme's outcomes. A post-test will be conducted at the end of the PAR process (see section 3.5.9). The one-group pre-test – post-test, in which a comparison is made after introduction of a stimulus (Campbell & Stanley, 1963), will be used. This will entail three methods of

testing: (1) questions, (2) recognition of danger signs with the help of a video film, and (3) observation.

1. Questions: there will be two parts.

Part 1: A questionnaire with questions related to the participants' reporting of symptoms of ARI in their child in the past, and to their response. The answers will be chosen from different options (modeled on a questionnaire for malaria, as described in Agyepong, Aryee, Dzikunu & Manderson (1995). See Appendix 3.4 for an example.

For each question there is one or more possible correct answers. The answers will be valued with "1" for any response deemed correct (bio-medically appropriate, or not delaying action), and "0" for any response that is not deemed completely correct (bio-medically not appropriate, or delaying) as per WHO treatment guidelines for children with cough or difficult breathing (WHO, 1994). See Appendix 3.5 for overview of WHO treatment guidelines. A total score in figures will be given for the whole exercise.

Part 2: Open-ended questions about hygiene and feeding practices (e.g., breastfeeding, child's diet, etc...). Below are some examples of such questions:

- At which age should a breastfeeding mother introduce solid food?
- Which different kinds of food does a child need?

- What can a mother do to avoid the spread of cough and cold amongst her children?

A list will be drafted as a guide for the evaluation. Based upon UNICEF's recommendations to prevent pneumonia (UNICEF, 1993), the list will also take local practices into account. See Appendix 3.6 for overview of UNICEF's recommendations. The answers will be valued "2" for any response deemed correct, "1" for any response that contains both correct and non-correct elements, and "0" for any response that is not deemed correct at all. A total score in figures will be given for the whole exercise.

2. Recognition of danger signs of pneumonia:

The participants will be asked to watch video films with children showing different danger signs of pneumonia (Upayokin, Dendoung, Muttiko & Ukoskit, 1991; Hudelson et al. 1995). The participants will be asked to point out the danger signs. The value "1" will be attributed when danger signs are recognized and correctly described, and "0" when they are not recognized or, not correctly described. A score in figures will be given for the whole exercise.

3. Observation:

Health programme staff will observe hygiene and feeding practices in the participants' houses, using an observation list. Below are examples of units of observation:

- Signs of cooking on open fires indoors

- Instances of smoking indoors in the presence of children
- Instance of more than one child sharing one bed.

The value "1" will be attributed for each observation unit that corresponds with a practice that conforms to UNICEF's recommendations to prevent pneumonia (UNICEF, 1993), and a "0" value will be given for each practice that does not conform to UNICEF's recommendations. A score in figures will be given for the whole exercise.

3.4.3 The intervention: the PAR process

a) Leading principles

The type of PAR envisaged for this project is the empowering type (as per Hart's & Bond's (1995; 1996) typology. This includes:

- participants and facilitators cooperate in design and implementation of the whole process.
- negotiations will be held on the issues on which the participants will focus (possibly retaining both the problem issue predefined by the proposal writer (in this case: timely action upon recognition of fast breathing in children), and issues deemed pertinent by the participants (Rudd & Comings, 1994).
- participating groups try to achieve their goals through the interaction of their members

- learning takes place as a function of action and reflection (Freire, 1970). It is experiential: the activity of the learning person is central, and is based on auto-regulation and active assimilation (Schoepf, 1993).

b) The facilitators

Facilitators selected from the health staff working in the existing Primary Health Care Programme will lead the PAR process. The facilitators should give prove of mastering the following skills: ability to listen to and facilitate a dialogue amongst the participants, understand the communities' problems, inclusive health problems, ability to give clear messages and transfer skills, or liaise with resource persons. They should consider themselves as agents of change (or development), rather than health staff with a curative bias (Oakley, 1989; Rifkin (1985). Ultimately they should see themselves in a Freirian teacher-learner position.

c) The initial phases of the PAR process

The PAR process will start with problem-posing activities, based on the information acquired during the baseline study (e.g. specific instances of ARI-related risk behaviour, such as indoor cooking or smoking, or a common and concrete problem that caretakers face when they want to visit a health facility, such as lack of transport). The problem-posing activities will kick-off with a Freirian code: the concrete physical representation of an identified problem related to ARI, in a way appropriate to the local culture (theatre, story-telling, songs, etc.). The facilitators will engage in a dialogue with the participants about the code. They will use "why" questions, such as: "Why is this child sick? Why is this situation a problem?" The

ensuing dialogue – possibly fuelled by emotional responses -- will foster a learning process in which the participants acquire a better understanding of the problem issue, and how this issue relates to their behaviour. (Freire, 1970; Schoepf, 1993; Wallerstein & Bernstein, 1988).

Once the participants have acquired an understanding of the problem situation, they may want to give their understanding structure by ranking problems according to their importance, identifying priorities, setting of objectives and describing activities. A useful tool for such an exercise is the ZOPP method (Objectives Oriented Project Planning). At first, the participants assign each single problem a hierarchical position in a problem tree, according to its relation (as cause or effect) with a core problem. Then, the problem tree is turned into an objectives tree, by re-defining each problem as an objective. The location of each objective in the objectives tree will give an indication of the priority the participants give it. Subsequently, alternative activities will be described for each objective and achievable objectives will be singled out for action. (World Bank participation sourcebook, 1996; Nickson, 1993)

When the participants have made decisions about the course of action to follow, they should be encouraged to develop their own baseline information, as a tool to help them to monitor their own progress. They can do this on the basis of their own insights and criteria. A case study from Johnston (1993) can serve as an example. In this study people developed a survey form, listing aspects of their life related to community and family health and welfare. They used this survey form to develop

concrete indicators with which they could judge if they had come closer to reaching their goals.

d) Health education and training in life supporting skills

This component of the PAR process builds directly upon the previous phases. Once the participants have set objectives and activities, they will have to decide what they should learn and which skills are necessary to be able to engage into the activities that will help them reach their objectives. The activities carried out by the participants will include health education activities, as well as training in life supporting skills and problem solving, the principles of which are described in Appendix 3.7. These activities aim at meeting project objectives "a", "b", and "c", as stated in section 3.3. Below follows an overview of the health education and skills development activities in this phase of the PAR process.

1. Training in life supporting skills and problem solving, as well as in determining a child's breathing rate.

Training in life supporting skills and problem solving will depend on the actual skills that the target group requests, its specific learning targets, and the contextual problems. The training may focus on enhancing skills as diverse as communication with husbands, advocating the target's group own cause and interests with other members of their community, or upgrading literacy levels of the participants. If, for example, the participants decide to set up some training course to help them determine a child's breathing rate, they will have to take some hurdles before they can start the training course itself. These hurdles can be viewed as problems that need solutions, but also as opportunities

for personal and group development. If the participants engage to take the hurdles, they will start moving in problem-solving cycles, in which each solved problem will open up new problems that need solutions and provide opportunities for training in life supporting skills.

For example, a major question is how the target group will gain access to resources, like trainers, a location where teaching and training can be given, teaching materials, children to be used as dummies during the training sessions, etc. The group as a whole will have to come up with solutions. A possible strategy would be to sell the idea of the training course to those who can help. This implies the need to learn some communication skills to advocate their cause and solicit assistance. Once the group has met its goal, and trainers have pledged their cooperation, the participants will face a new set of problems. Guest trainers may need food, possibly some incentives. This will need some organizational capacity to collect food or money, and distribute the workload evenly, in which, the basic skills in book keeping may needed to be acquired to carry out the tasks. Therefore, the participants may want to take some sort of formal training, e.g. in order to acquire basic notions of book keeping.

Additionally, during the problem-posing activities the participants may have come to realize that some of their health problems are related to a wider range of practical problems in their environment, and that these need to be overcome as well. Therefore, it is likely -- and necessary -- that the training in skills focuses on these practical problems too. For example, communication

skills, acquired in an earlier part of the PAR process, may be useful to seek support from other groups in the community to tackle a transport problem to the health services. By doing so they would link health education with problem solving. Consequently, the participants will learn skills that are useful in a wider area than just the concrete health problems that led to the training in life supporting skills.

The expected outcomes are: participants recognize fast breathing in a child, acquire additional life supporting and problem solving skills, and bring their child to a trained health worker immediately after observing fast breathing

2. Health education, skills development, problem solving related to correct hygiene and feeding practices

The participants will determine the character of the health education sessions. They may request classically "taught" health messages, or may be involved in designing the lessons as well as the learning materials. Topics to be covered in health education include: breastfeeding practices, balanced diet, vitamin A intake, children sleeping alone, indoor smoking or cooking on open fires, regularly washing children's hands and faces, exposure of babies to people with colds and coughs.

Skills training may focus on attempts to diversify a community's diet and aim at boosting its capacity to grow vegetables or fruits (as in cattle herding societies); or to attempts to give access to clean water, entailing the need to construct and maintain water wells, or filters, etc.

Expected outcomes are: participants know correct hygiene and feeding practices, acquire additional life and problem solving skills related to correct hygiene and feeding practices, and apply them in their daily lives.

3. Health education, skills development related to correct treatment practices.

The character of the health education sessions will be similar as these related to correct hygiene and feeding practices. Topics to be covered include: recognition of the signs of ARI in children, feeding of sick children, giving fluids to sick children, keeping sick children warm, helping sick children to breath more easily, aerating the room where sick children sleep, etc. Skills training will be related to the above-mentioned topics, but can include other, practical, topics that are also related to the care of sick children.

Expected outcomes are: participants know correct treatment practices for ARI, acquire additional life and problem solving skills related to correct treatment practices for ARI, and apply them in their daily lives

3.4.4 Programme outcome evaluation

The programme outcome will be measured using outcome indicators for each programme objective (see section 3.3). Progress will be measured as follows:

1. With regard to project objective "a" (to increase the numbers of caretakers who bring their children aged less than five with fast breathing on time to a trained health care worker):

- an increase in the number of cases with fast breathing presented to a trained health worker
- participants demonstrate during the PAR process that they master new life supporting skills by performing tasks that are new for them
- more participants recognize fast breathing during the post-test, than during the pre-test

2. With regard to project objective "b" (to increase the numbers of caretakers who master correct hygienic and feeding practices):
- more participants know correct hygiene and feeding practices during the post-test, than during the pre-test
- more participants apply correct hygiene and feeding practices in their daily life
- participants demonstrate mastering new skills by performing new tasks related to hygiene and feeding practices during the PAR process

3.With regard to project objective "c" (to increase the numbers of caretakers who master correct treatment practices for ARI):
- more participants know correct treatment practices during the post-test, than during the pre-test

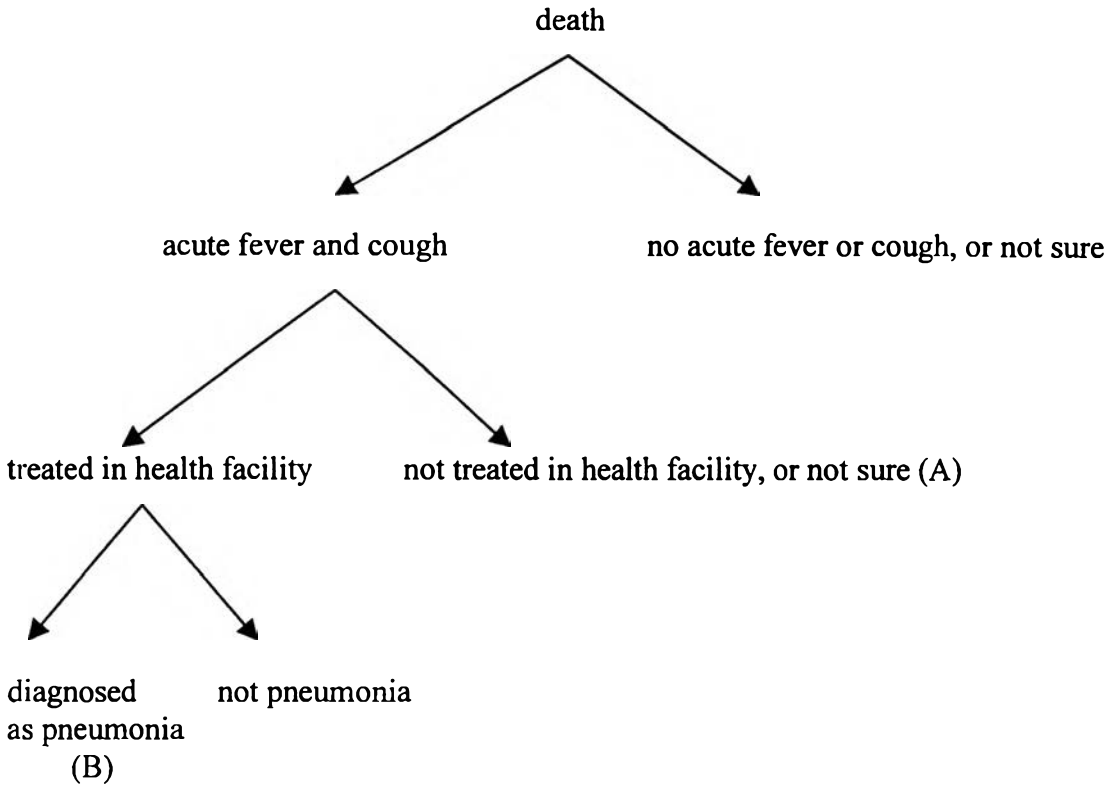
- participants demonstrate mastering new skills by performing new tasks related to correct treatment practices during the PAR process

3.4.5 Programme impact evaluation

Since there is no control group, programme impact evaluation will be measured using a time series control approach, based on Campbell & Stanley (1963). The variable under study will be: mortality of children less than five associated with acute cough and fever. This variable is a proxy for "unwarranted delays in presenting children with fast breathing to a trained health worker". The data will be collected by asking key-informants to report all deaths in children less than five, associated with acute cough and fever, in their residential cluster in a specific period. This procedure is adapted from the "verbal autopsy" surveillance method as described in Aga Khan Foundation (1993).

To avoid double counting of cases the respondents will be asked (1) if a child died in the cluster in the specified time period, (2) if the death was associated with acute fever and cough, or not, or not sure, (3) if a child whose death was associated with acute fever and cough was treated in a health facility. Following this, all cases said to have been treated in a health facility will be checked using the health facility registers. This path is represented in Figure 3.2 below. The mortality figure will be obtained by adding cases associated with acute fever and cough that were not treated in a health facility (A), to cases diagnosed as pneumonia in a health facility (B).

Figure 3.2: Path to follow to obtain the mortality figure of children whose death was associated with acute fever and cough



The data will be collected retrospectively:

1. During the baseline study key-informants will be requested to report deaths that occurred in the 12 months preceding the baseline study. These data will then be grouped in 4 time blocks of three months each.

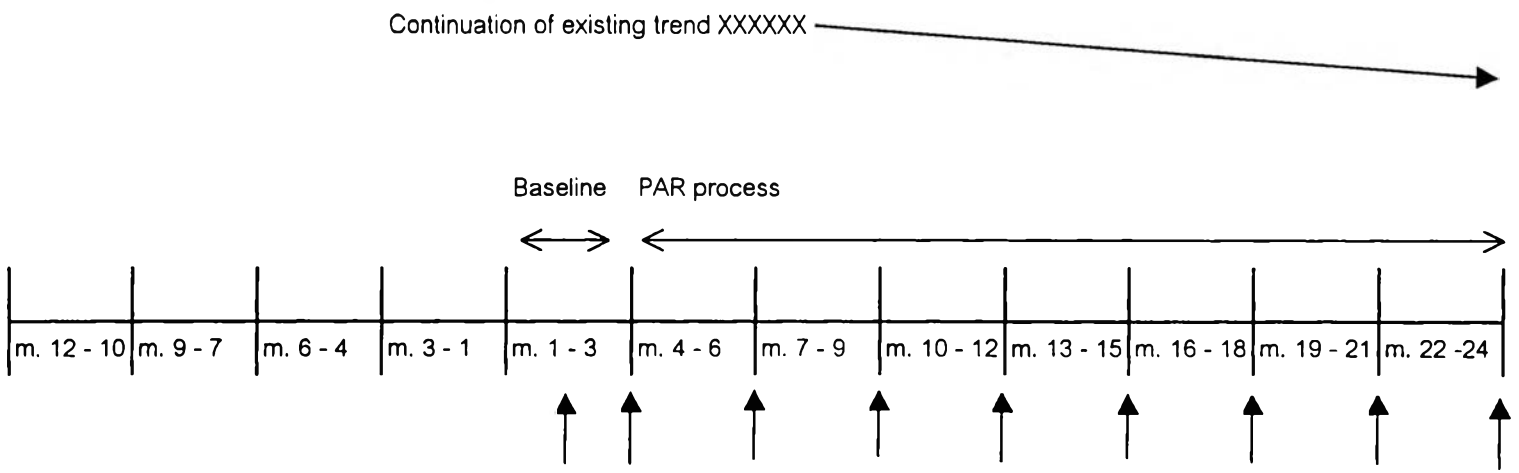
2. Starting with the beginning of the PAR process (three months after the first inquiry during the baseline study), and to be repeated every three months until the end of the project (at month 24). The data collected this way will be grouped in 12 time blocks of 3 months each.

The data thus acquired will represent a trend over a three-year period, which will include a pre PAR intervention period, and a period running concurrently with the PAR process. The interpretation of this trend is represented in Figure 3.3. A

continuation of the trend until after some time in the PAR process, followed by a decrease in mortality, starting at some time during the PAR process, will indicate a positive impact of the programme. It is assumed that there is no change in registration procedures for mortality over time. Also, one should take into account that the mortality curve can be affected by weather conditions (e.g. cold season influencing incidence of ARI).

continuation of the trend until after some time in the PAR process, followed by a decrease in mortality, starting at some time during the PAR process, will indicate a positive impact of the programme. It is assumed that there is no change in registration procedures for mortality over time. Also, one should take into account that the mortality curve can be affected by weather conditions (e.g. cold season influencing incidence of ARI).

Fig. 3.3: Decline in mortality related to acute cough and fever as an indication of a positive impact of programme interventio



arrows represent data collection periods

Source: based on Campbell & Stanley (1963)

3.5 Ethical issues

The baseline study should give an indication on whether setting up a PAR programme is politically hazardous for the participants (Patton, 1990). Should this be the case then the programme managers should refrain of setting up the programme. In any case, participation in the PAR process should be voluntarily and based on a negotiated agreement between participants and facilitators (Hart & Bond, 1995). This agreement, concluded on the basis of local customs, will specify reciprocal commitments and rights, such as:

- Facilitators commit themselves to assist the participants to learn in order of improving their life situation
- Participants commit themselves to participate for the full period of the project (although they can quit the programme at any moment)
- Activities should be scheduled to allow both the participants to carry out their normal household or professional duties, as the programme to yield results.
- Participants can propose problem issues other than the predefined problem issue, if they deem these pertinent and related to the predefined issue
- Activities will be designed on a joint basis
- Participants agree to bring in resources, or look for them, as deemed reasonable, and facilitators to supplement them, as deemed reasonable
- Participants and facilitators will be jointly owner of the information gained and possible dissemination will occur after reciprocal consultation.

It is acknowledged that the learning process, while changing the participants' lives, may be threatening. Also, the methods used in the PAR process may be at odds with the customs and manners of the community. Therefore, it is important that the facilitators create an atmosphere in which the participants feel comfortable, and that does not expose them to harm or humiliation, or otherwise undesirable situations.

3.6 Constraints

The set-up of this PAR programme may be constrained by many factors (both external and internal). A major constraint is lack of political commitment: authorities, traditional leaders, and bureaucracy who are not concerned with development issues, and not up to their task to support the development process (Johnston, 1993; Nickson, 1993; Oakley, 1989; Gow & Vansant, 1983). Another constraint is health staff unable and unwilling to act as a change agent (Rifkin, 1985). A high degree of stratification, or chronic conflicts in the community (La Forgia, 1985) may also heavily hamper the process of cooperation (participants should be able to agree on needs, problems, priorities, strategies).

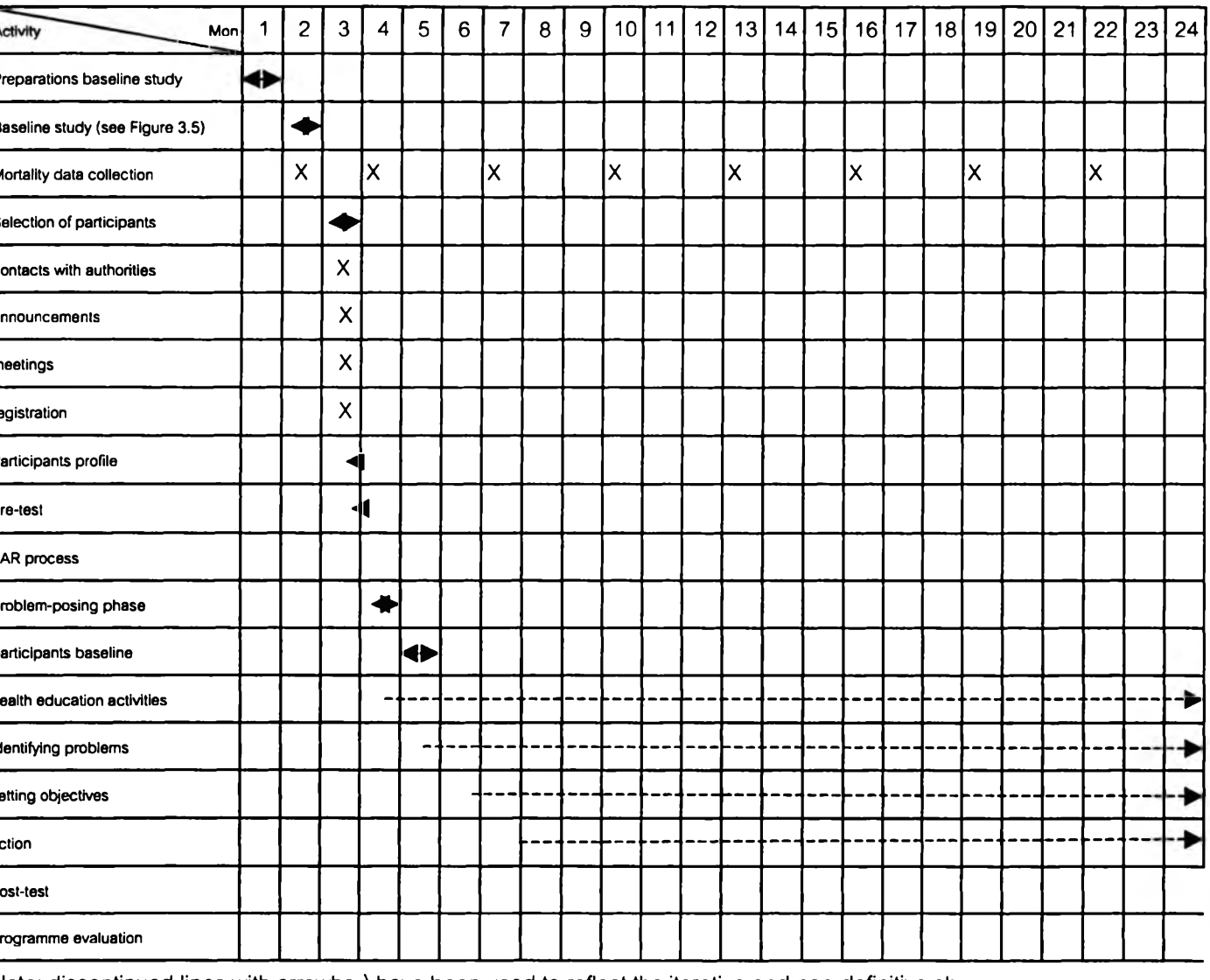
Another constraint is local cultural norms and values that are incompatible with the PAR initiative. PAR is based on an open exchange of ideas and arguments, and it sanctions the right to question, which may not be accepted practice in all cultures (Aubel & Samba-Ndure, 1996; Maclure & Bassey, 1991).

Lastly, even though expenses for this programme are expected to be moderate, funders may find it problematic to give financial support to a programme with a small target population. Therefore, it is realistic to incorporate it in a bigger programme, e.g., a Primary Health Care Programme.

3.7 Time schedule

The project will last for two years. It will start with a baseline study that lasts for ten days. Figure 3.4 shows the time schedule for the whole project. Figure 3.5 shows the time schedule for the baseline study.

Figure. 3.4: Time schedule for the whole project



Note: discontinued lines with arrowhe) have been used to reflect the iterative and non-definitive ch

Time schedule baseline study

	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9	Day 10
	◄►									
mation checklist		◄►								
collection tools; train; test			◄►	◄►						
					◄►	◄►	◄►			
								◄►		
informants									◄►	
										◄►

3.8 Resources needed

Given the hypothetical setting of this proposal, I refrained from drafting a budget. However, to give an indication of the input required I gave an overview of the resources that are needed. This should in general lines be valid for any programme that is set-up on the basis of this proposal. While most input will come from the organizing agency and possibly also from the authorities, some input will be requested from the community as well, more in particular to support some of the activities of the PAR process.

a) General programme management:

- Health programme manager
- Computer equipment
- Office space, meeting room
- Stationery
- Transport (or travelling expenses)

b) Baseline study:

- Team of health programme staff, community members, government officials
- Consultant (facilitator) for 10 days
- Stationery
- Questionnaire
- Official and other documents
- Area maps
- Tape recorder (facultative)

- Transport (or travelling expenses)

- Meeting room

- Food, refreshments...

c) Preparations of PAR project (including post-test):

- Stationery

- Food, refreshments

- Transport (or travelling expenses)

- Audio-visual materials used in Focused Ethnographic Studies

- Interviewers with background in clinical ARI

d) PAR:

- Facilitators (part of whom preferably belong to the health services staff)

- Stationery

- Other as yet unspecified materials for health education purposes (mainly supplied or acquired by communities)

- Other as yet unspecified resources to carry out activities decided upon in the course of the PAR process (mainly supplied or acquired by communities)

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