

Cost Effective Health Promotion  
and Hygiene Behaviour Change  
through Community Health Clubs

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## ABSTRACT

Although safe sanitation and hygiene is critical for improving family health, rural communities in Sub Saharan Africa have shown little inclination to change their traditional behaviour, and sanitation coverage has now dropped to 47% (Cairncross 2003). With the Millennium Development Goals seeking to halve the 2.4 billion people without sanitation by the year 2015, there is an urgent need to find cost-effective health promotion strategies that will actively engage rural householders in modifying risky hygiene behaviour. This thesis evaluates an approach, developed in the past ten years over Zimbabwe, in which Community Health Clubs have successfully galvanised rural communities into active behaviour change leading to a strong demand for sanitation. In Tsholotsho District, after six months of weekly hygiene promotion sessions, at the cost of US 35c per beneficiary, good health knowledge of nine different topics was 47% higher in the intervention than for the control, and latrine coverage rose to 43% contrasted to 2% in the control area, with the remaining 57% members without latrines practicing faecal burial, a method previously unknown ( $p>0.0001$ ). Spot observations of 736 health club households in two districts was contrasted to 172 in a control group, and showed highly significant changes in 17 key hygiene practices ( $p>0.0001$ ) including hand washing. The study demonstrates that if a strong community structure is developed and the norms of a community are altered by peer pressure from a cyclical to linear world view, hygiene behaviour change will ensue and a demand for sanitation can be created. Maslow's Hierarchy of Needs (1954) is adapted to a rural context to analyse the qualitative data, providing some insight into the socio-cultural mechanisms at work. Despite adverse socio-economic conditions in Zimbabwe for the past five years Health Clubs have flourished, providing a sustainable and cost-effective case study.

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*All photographs were taken by J. Waterkeyn*



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## **Chapter 1: INTRODUCTION**

### **1.1. What is health promotion?**

The drive for health promotion began almost 30 years ago with a call internationally for 'Health for All by the Year 2000' (Alma-Ata, 1978). Five main themes stressed the importance of equity, community participation in decision-making, a multi-sectoral approach, appropriate technologies and an emphasis on health promotion activities (WHO, 1986). The guidelines called for changes in social structure and government policy, and required proactive promotion in the public domain. Health Promotion became an umbrella term to cover both the *individual* and the *structural* change that was required for effective improvement in health status of a 'community'. These ideas were reiterated in the Ottawa Charter (WHO, 1986) at the first International Conference on Health Promotion, which defined the concept as *'the process of enabling people to exert control over the determinants of health and thereby improve their health'* (Nutbeam, 1999b).

### **1.2. Different perspectives in health promotion**

There is considerable debate as to the best approach for health promotion (Nutbeam, 1999a) despite the fact that many models have been proposed to understand the mechanism of behaviour change to induce people to co-operate (Lewin, 1935; Ajzen and Fishbein, 1980; Bandura, 1986). The field has been broadly divided between those who believe in long-term, horizontal initiatives with an emphasis on sustainability, as opposed to those who find a vertical approach, which only pinpoints a particular issue, is more viable because it is seen to achieve more immediate and quantifiable results (Cairncross et al, 1997) (See Section 2.3). The approach described in this intervention is positioned within the 'horizontal' Community Development paradigm, which emphasises capacity-building through a bottom-up approach, as a means to addressing the underlying determinants of health rather than the 'sticking plaster' approach that addresses the symptoms of a particular disease (Chambers, 1983).

### **1.3. The scale of the disease burden in Africa**

In Africa there is an enormous burden of infectious disease, of which 28% is associated with diarrhoea, attributable to poor water supply, ineffective excreta disposal and poor household hygiene. It was estimated in 2004 that 288 million people in Sub Saharan Africa are still without improved drinking water, whilst 437 million lack basic sanitation (WHO / Unicef, 2004). In response to these gaps, the

United Nations Millennium Summit of 2000 listed safe drinking water and sanitation as being one of the eight key Millennium Development Goals (MDGs) with the target of halving the number of people without safe drinking water and improved sanitation facilities by the year 2015. Given current trends, Sub Saharan Africa is unlikely to achieve the targets envisaged by the MDGs in the next five years. The gap may be attributed to the fact that Sub Saharan Africa has the highest rate of population increase in the world with a 27.5% increase from 615 million to 784 million between 1990 and 2000. This population pressure as well as political instability, conflict and poor maintenance of existing facilities in many countries, gives this region the second lowest worldwide coverage of water and sanitation (WHO / Unicef, 2004).

Whilst many agencies identify the challenge as providing increased resources and financial support (Terry and Calaguas, 2003), it is the contention of this research that the real challenge lies not only in providing the budget for adequate water and sanitation facilities, but in energising communities to participate in this challenge and to ensure, through health promotion, that there is a demand for improved facilities, particularly for sanitation. The need to find a model that induces positive behaviour change is critical if the Millennium Development Goals are to impact at all on the health of those targeted for improvement. This requires an urgent identification of health promotion strategies that are cost-effective and can be reliably predicted to decrease risk practices.

#### **1.4. Lack of behaviour change**

A considerable body of literature has established the connection between improved hygiene in the home and the reduction of infectious diseases (Feachem, 1984) but there have been few rigorous studies on the cost-effectiveness of hygiene and health promotion (Loevinsohn, 1990). The difficulty with improving hygiene in the domestic domain is that it also requires considerable change of habitual behaviour by the target population, who have to actively devote their own energies to the intervention if hygiene standards are to improve (Cairncross et al., 1996). The lack of engagement by communities and consequent lack of behaviour change in the home, has been the major constraint in the past towards achieving potential health outcomes from water and sanitation programmes (Feachem 1978).

#### **1.5. The Determinants of Health**

This thesis focuses on the three principles of the Ottawa Charter (WHO, 1986): creating supportive environments; strengthening community action; developing personal skills, which aim not merely to reduce disease, but to address the determinants of health.

The Community Health Club Approach described in this thesis provides a 'vehicle for change' that is capable of modifying the determinants of health to ensure long-term hygiene improvement, based on community cohesion and mutual support groups.

The approach was developed over a decade ago and field-tested in Zimbabwe in 1995. It was scaled up in five districts in Zimbabwe between 1999 and 2001, and subsequently replicated in Sierra Leone in 2002 and Uganda in 2004. Much anecdotal evidence in all three countries suggests strong community response and empirical proxy indications of behaviour change at community level. However more rigorous and systematic research was called for and this was carried out between 2000 and 2004 in Zimbabwe. The cost-effectiveness and impact of the intervention is herein presented.

### **1.6. What are Community Health Clubs?**

'Community Health Clubs' are voluntary, community-based organisations (CBOs) formed to provide a forum for information and good practice relating to improving family health. They aim to create a 'common unity' of understanding and shared perceptions of disease, within an area. Cultural values within many indigenous societies in Africa predispose individuals to seek group cohesion (Gelfand, 1984; Mutswairo, 1996; Ncubane, 1977). With a calculated use of group dynamics, the Community Health Club approach was crafted by the author specifically to achieve behaviour change. Social pressure and group conformity are, in this model, seen as more potent change agents than is the mere appeal to individual rationale through cognitive learning, although the later is also recognised as being important. By adjusting norms and values this health promotion strategy creates a 'culture of health,' which enables women to successfully control most preventable diseases and manage their family's health. By constant reinforcement of key messages, bolstered by group consensus, Community Health Clubs can develop self-efficacy enabling members to successfully challenge existing cultural practices that undermine good health. Social support encourages them to move from what is perceived in this thesis as a 'cyclical worldview' tied to traditional cultural norms, towards a more 'linear worldview', where change is endorsed. If the critical mass in a community change their core values and beliefs based on informed decisions, late adopters are likely to conform for social reasons. Thus positive behaviour change in hygiene is reasonably predictable if a person is an active member in a dynamic Community Health Club.

### **1.7. The trend in Health Promotion**

Early attempts at health promotion were only marginally successful. Despite the wealth of theoretical constructs, there is still a dearth of rigorous studies that have

operationalised health promotion models and successfully demonstrated hygiene behaviour change in the field (Cave and Curtis, 1999). A benchmark is essential if ideas are to break new ground in the sector, but to-date few peer reviewed studies can be found to meet these standards of academic rigour as itemised by Loevinsohn, (1990).

Loevinsohn (1990) suggested that a *few simple* messages targeting *one* disease was the most effective means of ensuring behaviour change during the 1970s and 1980s. His tentative recommendations appear to have been followed by practitioners in the field, to the point that his suggestion has become the prevailing wisdom during the 1990s. This is evidenced by trends in research studies; fourteen out the fifteen rigorous studies selected in the three reviews which have monitored studies over the past twenty five years (Loevinsohn, 1990, Cave and Curtis 1999, Ahern 2000), were found to focus on a single condition, and promote fewer than four key messages (See Section 2.5).

It is the contention of this thesis that this type of reductionism is not cost-effective and that more sustainable benefit in the long term is to be gained for communities from a broader approach in which all aspects of preventative disease are addressed rather than narrowly targeting one disease. The Community Health Club intervention, sought to tackle all the infectious diseases that could be prevented by good home hygiene. Over twenty health sessions recommended an entire raft of behaviour changes that could control diarrhea, dysentery, cholera, scabies, ringworm, trachoma, and roundworm, as well as malaria, shistosomiasis, and HIV/AIDS, tuberculosis and acute respiratory infections.

## **1.8. Demand led sanitation**

Whilst there are many small changes that can be made relatively easily in the kitchen and the yard to improve hygiene, the most difficult to achieve in terms of time, effort and financial investment is the construction of a household latrine. Demand led sanitation is one of the most challenging of outcomes in a health promotion campaign and can be taken as one of the strongest indicators of community commitment, as it involves considerable outlay in local resources.

Current approaches to encouraging communities to construct latrines have failed and a radical change of approach is needed (Cairncross, 2003a). The Community Health Club (CHC) Model was designed to demonstrate that with a sufficiently strong sanitation campaign, the community can be persuaded to build latrines using their own resources. The debate continues as to which development model provides the most effective results in changing peoples behaviour (Esrey et al, 1991, Nutbeam and Harris,

1999a, 1999b) and Health Promotion, as a relatively new discipline, is still searching for credible paradigm (Bunton and MacDonald, 2004). This research hopes to contribute to this dynamic.

The Community Health Club intervention aimed specifically to:

- a) achieve high levels of behaviour change;
- b) to find a means to quantify the changes that take place;
- c) to find a model that could be sustainable and replicable;
- d) to provide a means of predicting behaviour change.

### 1.9. Objectives of the study

This study was undertaken in 2000, after five years of Community Health Club activity in Zimbabwe, in order to verify anecdotal evidence which cited numerous examples of high levels of community uptake. A more rigorous approach was needed to ascertain the following:

- ***Has there been any positive behaviour change as a result of the Community Health Club intervention?***
- ***If there has been behaviour change, how has it been achieved?***

The following hypotheses are tested in this study:

- Community Health Clubs will increase members' health knowledge.
- Community Health Clubs should induce positive behaviour change.
- Using Community Health Clubs is a cost-effective method of hygiene promotion.
- Community Health Clubs attract a strong and sustained adherence.
- Community Health Clubs meet the identified needs of rural women.

The following chapters will attempt to answer these questions by two means:

Firstly, by the analysis of *quantitative* data, taken from a household survey of 50 Community Health Clubs in two districts of Zimbabwe. Levels of health knowledge of 729 respondents were assessed, as well as spot observations of 21 key indicators in each household. These were then compared to a control group in two neighbouring areas who were not members of Community Health Clubs.

Secondly, *qualitative* research provides an analysis of twenty structured interviews with Community Health Club members, as well as ten pair-wise ranking exercises using community based evaluation to help understand the social-psychology of this research in terms of human motivation.

### **1.10. Summary of Chapters**

**Chapter 2** provides a typology of health promotion theories (Nutbeam, 1999a) and discusses the issues of horizontal versus vertical interventions. Three reviews (Loevinsohn, 1990; Cave & Curtis 1999; Ahern 2000) are used to assess the achievements of the most rigorous studies, and thoroughness of these health promotion interventions are compared.

**Chapter 3** considers psychodynamic theories of Human Motivation in particular some which examine universal behavioural tendencies, basic needs and incentives: the Hierarchy of Needs (Maslow 1954) and the Need to Achieve (McClelland, 1961). Attention is also paid to the emerging importance of Social Capital (Kawachi & Berkman, 2000) which is seen as particularly relevant for this research.

**Chapter 4** situates the intervention within the context in Zimbabwe presenting some of the key aspects of Shona and Ndebele culture (Gelfand, 1979, 1984) related to gender issues which may affect adherence to the Community Health Clubs. Determinants of health are discussed to enable an assessment of the current intervention related to other counties. The final section provides an overview of the most common causes for hospital admission in Zimbabwe, with special reference to HIV/AIDS.

**Chapter 5** outlines the theoretical basis from which the Community Health Club Model has been developed. The Cyclical-Linear Model describes the process of changing social norms through social interaction showing how behaviour change in Community Health Clubs (CHC) may take place.

**Chapter 6** describes the implementation of the CHC Model from earliest field trials in 1995 to a fully-fledged programme in 2001, and provides detailed reports on the training methodology, the costs and the health and social outcomes in Makoni and Tsholotsho Districts.

**Chapter 7** presents the design of this research and interrogates the research methodologies which include qualitative and quantitative approaches. The sampling procedure is examined, and possible sources of bias and objectivity discussed.



**Chapter 8** presents the quantitative results of the household surveys conducted in Tsholotsho and Makoni Districts in 2000, giving levels of health knowledge and behaviour change in Community Health Club members compared to a control group, substantiating the cost-effectiveness of the intervention.

**Chapter 9** provides qualitative insights into the perceptions of Community Health Club members from twenty interviews conducted in Makoni District in 2004 to ascertain reasons for continued adherence to health clubs.

**Chapter 10** discusses how the study has attempted to meet standards of scientific rigour required in order to validate findings. It revisits the principle of addressing the determinants of health, and shows how the Community Health Club Model has the ability to predict and measure behaviour change which can provide a cost-effective alternative to more vertical interventions.

**Chapter 11** looks towards the future replication and scaling up of the Community Health Club Model and pinpoints areas of applied research which would provide deeper understanding of this approach.

## CHAPTER 2. HEALTH PROMOTION

*The more powerful forms of health promotion action are those which are long term, and least easily predicted, controlled and measured by conventional means. Against this, important and valued advances in knowledge and credibility, has come from more tightly controlled interventions which have been evaluated through the application of more traditional experimental designs. This tension between 'scientific rigour' and the perceived advantages in long term effectiveness and maintenance coming from less well defined content and methods of community controlled programmes continues to pose technical problems in evaluation.*  
(Nutbeam, 1998a)

### SUMMARY

This Chapter is a review of the literature on health promotion considered relevant to the intervention discussed in this thesis.

**Section 2.1.** defines the meaning of theory and how it can be useful to practitioners.

**Section 2.2.** presents a typology of theories as identified by Nutbeam (1999a) and classifies themselves according to those that focus on change in individual and those that focus on change in society. The same theories are a reclassification based on two distinct paradigms in terms of development theory: Cognitive-rational and Psycho-dynamic approaches to understanding the mechanism of change.

**Section 2.3.** highlights how theories can be understood in terms of a vertical or a horizontal approach when operationalizing interventions, and how this affects the sustainability of interventions and their usefulness to the community.

**Section 2.4.** examines a method for evaluating Health Promotion through the Outcome Model (Nutbeam, 1999a) based on the determinants of health of the Ottawa Charter (WHO, 1986).

**Section 2.5.** is a detailed analysis of fifteen studies that have been identified by three reviews as rigorous according to specific criteria (Loevinsohn, 1990; Cave and Curtis, 1999; Ahern, 2000).

**Section 2.6.** revisits the achievements of the rigorous studies in terms of type of intervention, social and health outcomes, disease reduction and levels of behaviour change, cost-effectiveness and levels of education. For comparative purposes the importance to this research in each study is the thoroughness of each intervention. This is analysed in terms of number of direct interactions with the community, complexity of training and number of observations taken to indicate behaviour change or disease reduction.

**Section 2.7.** looks at two studies which, to the author, represent sustainable development and are comparable to the outputs achieved in this intervention.

**Section 2.8.** is a discussion of pertinent issues arising from the literature review, which will be revisited at the end of this research in more detail, once the result of this intervention have been presented.

## 2.1. THE NEED FOR THEORY

One of the main criteria for a rigorous study (Loevinsohn 1990) is that an intervention should be based on a theory, and or some model of development. To be of use to other practitioners a theory should be able to explain why some programmes galvanise people into action and predict the conditions under which such activity occurs. It should also demonstrate the relationship between knowledge, belief, social norms and behaviour. (Nutbeam, 1999a)

A theory may be defined as follows:

*Systematically organised knowledge applicable in a relatively wide variety of circumstances devised to analyse, predict, or otherwise explain the nature or behaviour of a specified set of phenomena that could be used as the basis for action (Van Ryn and Heany, 1992).*

The following section outlines a range of health promotion theories that have been developed in the past thirty years (Nutbeam 1999a), and categorises them firstly according to whether they focus on individual change or change within the society at large, according to Nutbeam (1999a). Secondly they are re-categorised according to whether the theory has an understanding of change through a cognitive-rational or a psycho-dynamic means. Further there is an analysis on the author's perception of

which theories lends themselves to a vertical or a horizontal intervention when applied in the field to a community.

## **2.2. HEALTH PROMOTION THEORIES**

### **2.2.1. Change Through Individual vs Society**

#### 2.2.1.1. Theories that focus on individual change

Theories that cover individual behaviour and seek to induce behaviour change through focusing on individuals include the Health Belief Model (Stretcher & Roenstock, 1997, Janz & Becker, 1984, Harrison et al, 1992), the Theory of Reasoned Action and Planned Behaviour (Ajzen & Fishbein, 1980, Ajzen 1991, Montano et al, 1997), the Stages of Change Model (Prochaska and di Clemente, 1984, 1997) and the Social Cognitive Model (Bandura, 1986, 1995).

#### 2.2.1.2. Theories that focus on change within society

Alternatively there are a group of theories that explain change with reference to the community and the most well know of this group is the Diffusion of Innovation (Rogers, 1983). Theories of Rural Development (Chambers, 1986) or the approaches of Community Development, the Social Planning and the Social Action (Bush et al, 2002; Minkler and Wallerstein, 1997; and Rothman and Tropman 1987, 2001) are all variations on methods of empowering communities and achieving their involvement and cooperation.

A cohesive society is marked by *'an abundance of "mutual moral support", which instead of throwing the individual on his own resources, leads him to share in the collective energy and supports his own when exhausted.'* (Kawachi, 1987). This form of mutual support and trustworthiness is conceptualised by some as Social Capital, and has been defined as *'those features of social structures – such as levels of interpersonal trust and norms of reciprocity and mutual aid – which act as resources for individuals and facilitate collective action'* (Coleman 1990; Putnam, 1993a). In the context of Public Health Programmes, Social Capital can help communities to manage their own health; it has, for instance, been shown to reduce conditions such as heart disease (Kawachi & Berman, 2000).

There are a group of Health Promotion practitioners who advance strategies using media communication for change within society (Kotler and Roberto, 1989; Andreasen, 1995, Ling et al, 1992; Miabach et al., 2002). The Social Marketing Approach, through public/private partnerships is the latest trend in health promotion in developing countries as it is seen as a cost-effective strategy to induce behaviour change (Borghini et al., 2001). It seeks to use the same social dynamic as commercial advertising through the media and appeal to status. The disadvantage of the Social Marketing Approach is that when key messages are broadcast through the radio and television, it is difficult to evaluate results accurately because there are seldom defined and 'captive' target population (Elder et al., 1998). In addition any measurement of the impact may be easily confounded by other effects beyond the control of the intervention, given the open-ended nature of the strategy.

## **2.2.2. Cognitive-Rationale vs Psycho-social patterns of behaviour change**

The theories discussed above can be reclassified into those which use a cognitive-rationale approach to problem solving through information linked to action, and those which use a Psycho-social approach to action, seeking to modify norms and values through social pressure.

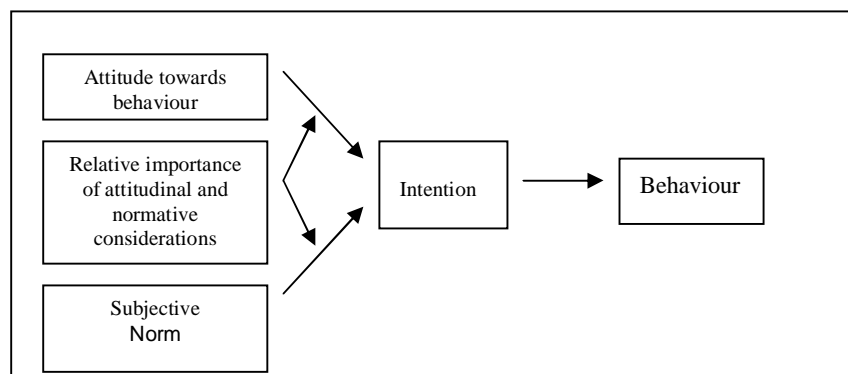
### **2.2.2.1. Cognitive-Rationale perspective**

The Social Planning Approach is of greatest importance in this discussion as most of the rigorous studies discussed use this approach either directly or subliminally. Social Planning is merely a term for interventions that reflect a professional, epidemiological analysis of health problems, in which interventions tend to be expert-driven, task-orientated and based on a rational-empirical approach to problem solving. With a similar cognitive perspective is the Health Belief Model (Cognitive Learning) which accounts for the variance of an individual's behaviour based on their attitudes and belief. Thus by *changing beliefs*, actions will be affected, and whilst this may be a rational response, this is seldom enough to affect behaviour change. Both approaches focus on the rational explanation and solution to the condition: the Social Planning on disease identification and cure or prevention, and the Health Belief Model on a rational connection between knowledge and behaviour change. Both these theories will tend to produce vertical interventions (See Section 2.3.1.) when they are operationalised, by virtue of their narrow focus on knowledge or disease, in isolation from social dynamics.

#### 2.2.2.2. Psycho-Social perspective

Psycho-social analysis of human behaviour change recognises other factors that influence change rather than purely cognitive-rational aspects. The Theory of Reasoned Action and Planned Behaviour emphasises the importance of *social pressure* to effect individual change. Behaviour is determined by a combination of *personal belief, subjective norms and perceived personal control* (self efficacy). A person's belief that the behaviour leads to certain outcomes and his evaluations of these outcomes will determine his intention. In addition a person's belief's that specific individuals or groups think that he/she should or should/not perform this behaviour (the subjective norm) will also affect his/her motivation to comply with the specific referents. After assigning different weights to these two components, they can be used to predict the person's intention to attain the outcomes in question. This however seems to assume that once the intention is strong, the behaviour will follow, although this might not necessarily be the case in reality (See Fig.1 below).

**Fig 1: Theory of planned behaviour: factors determining a person's behaviour**  
(Ajzen and Fishbein, 1980, p.8)



The Social Learning Theory (Bandura 1986, 1995) investigates how the behaviour of individuals interacts in a dynamic two-way process with their environment in constantly changing dynamics termed '*reciprocal determinism*'. Three important contributory factors in effecting change are *observational learning* (emulating others), *expectations* associated with behaviour change, and the perceived personal capacity to effect change (*self efficacy*). The health worker thus functions as a facilitating agent for change, helping to modify the social environment to make it more conducive to change, as well as building the *self efficacy* of the individual. Self efficacy can be enhanced by breaking down the complexities of the target behaviour into manageable components, focusing on short term gains (Remington & MacDonald 1985), and tackling simple behaviours before the more complex ones. It enables people to have the confidence to

achieve their tasks. (Bandura 1986). By building individual self-efficacy the health promoter functions both as a facilitator and helps to modify the social environment to make it more enabling.

The Theory of Reasoned Action and Planned Behaviour and the Social Learning Theory provide the basis for a more community based intervention which will necessarily produce a more horizontal or holistic approach to community development rather than the narrow focus on reduction of disease.

The theory underpins an intervention and will determine how the theory be operationalised in vertical or horizontal intervention in the field (See Table 1 and Table 2 below).

### **2.3. TYPOLOGY OF VERTICAL VS HORIZONTAL INTERVENTIONS**

It is also useful for this research to categorise the interventions that have been selected into two main perspectives, that of a vertical and horizontal perspective. As mentioned above this will determine the sustainability of the intervention and its cost-effectiveness, as will be discussed further in this Chapter. (See Section 2.6.4.)

#### **2.3.1. Vertical Interventions**

'Vertical' interventions are those that tend to narrow the research objective to one particular condition or disease (See Table 1). They often may achieve immediate change in health status, but they do not aim to build capacity or to sustain the behaviour in the beneficiaries. As discussed above this often represents the Social Planning approach to problem solving, focusing on cause and effect. To control the disease, specific behaviours are targeted, such as ensuring hand washing with soap or breastfeeding babies. Because the target is so specific, the intervention can be fairly accurately measured; success is usually gauged by outcomes that can be quantified and are statistically significant and verifiable. This tends to reduce the intervention to a very structured and focused campaign, but the term 'vertical' is used rather than 'reductionist', as this a negative label, whereas there are often positive aspects to this perspective. For example vertical intervention may be entirely appropriate in an immunisation campaign, or in emergency programme where shortage of time dictates a rapid response. However, diarrhoea, is transmitted by the faecal-oral route and may be water-borne, food borne or by direct transmission (Feachem, 1984), which means that to interrupt this transmission multiple interventions are needed as it cannot be effectively

controlled by only one means, for example providing clean water. To combat diarrhoea effectively food hygiene has to be improved as well as personal hygiene to prevent contamination of food by the hands. This requires a more holistic approach, which can target a broad range of risk practices. Whilst some interventions like hand washing with soap may make significant improvement (Curtis and Cairncross, 2003) it is preferable to address all the risk practices if it can be done as cost-effectively.

### 2.3.2. Horizontal Interventions

'Horizontal' health promotion interventions, tend to look at the context of the disease or condition within the social context. Even if it seeks to address a particular disease, the problem is seen essentially as either social or structural, or a combination of both. The assumption here is that by modifying the determinant the condition or disease will be overcome in the long term and thus lead to sustainable improvement. Thus the solution is perceived as only possible if the determinants, social organisation and/or structural equity, are addressed. Although the disease/condition and the intervention may have been identified and designed by experts, a partnership is formed with the target population to address a particular disease in the long term, and to enable them to change their own behaviour and, as far as possible, use their own resources to do so.

**Table 1.** Attributes of 'Vertical' and 'Horizontal' Interventions

<b>Vertical Interventions</b>	<b>Horizontal Interventions</b>
• Health problem	• Social problem
• Expert driven	• Demand led
• Rational action	• Local priorities
• As soon as possible	• As long as it takes
• Narrow & focused	• Broad & holistic
• Cost effective	• Build capacity
• Measurable outcomes	• Sustainable
	• Participatory



This type of programme aims to be demand-driven and uses participatory activities to build the capacity of the community. The time frame ideally is open ended and local priorities dictate the direction taken, although practicality usually limited this aspect of the approach. For this reason most horizontal interventions will employ a participatory style of training, whereas vertical interventions often find this too cumbersome and time consuming.

*The experience of PRA (Participatory Rural Appraisal) over the past few decades, shows that the more bottom-up and participatory the intervention, the more behaviour changes are likely to be achieved. In addition the intervention is more likely to be perceived as owned by the target population rather having been than foisted upon them (Cornwall, 1997).*

#### **2.4. THE OUTCOME MODEL FOR HEALTH PROMOTION**

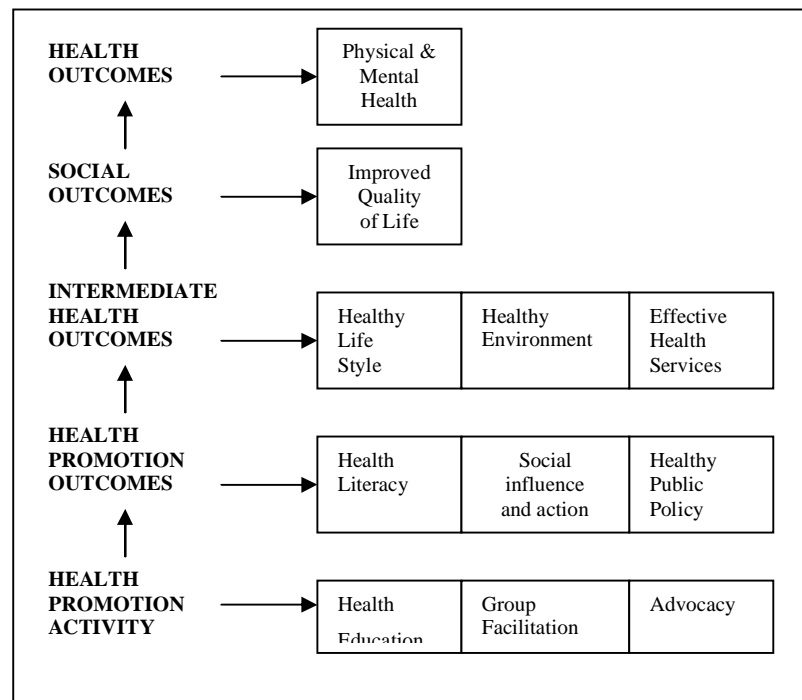
In an attempt to clarify the complexity of evaluating programmes aimed at improving health, Nutbeam (1998b) provided an Outcome Model for evaluating Health Promotion which enables the identification of indicators of success across a range of contributory factors.

Fig.2. below, shows that Health Promotion Activity is comprised of Health Education, Group Facilitation and Advocacy. The three measurable outcomes will be social influence and action and improved Public Health Policy. The Health Promotion Outcomes will lead to Intermediate Outcomes, consisting of healthy lifestyle and environment and effective health service. This in turn leads to Social Outcomes (an improved quality of life), and this finally will provide a Health Outcome: good health.

As Nutbeam (1999) asserts:

*Health promotion is described as a 'process' indicating that it is a means to an end, and not an outcome in its own right. Health promotion is an activity directed towards enabling people to take action. Thus health promotion is not something that is done on, or to people; it is done with people, either as individuals or as groups. Participation and partnership are valued processes in health promotion (Nutbeam, 1999b).*

**Fig. 2.** Outcome Model for Health Promotion (Nutbeam, 1999; adapted by the author)



## 2.5. ACHIEVING SCIENTIFIC RIGOUR

In three reviews of health promotion studies (Loevinsohn, 1990; Cave and Curtis, 1999; Ahern, 2000) in the past 15 years, in which a total of 334 studies were considered for review, only fifteen were found to be rigorous. All the studies which passed the criteria for selection were without exception, studies that targeted only one disease or condition. In addition in practically all cases the studies only promote a limited number of key health messages, and evaluated their success based on only one or two indicators. Many academics will only accept that a health promotion intervention is indeed effective in terms of reliability and replicability if the study can demonstrate methodological rigour (Ahern, 2000). Loevinsohn (1990) sharpened this debate by identifying criteria for evaluating the rigour of health promotion interventions in developing countries, and in recent years his list of eleven criteria has become the benchmark of reliability (See Table below). Loevinsohn's four main criteria are: a description of the educational manoeuvre sufficiently detailed to allow replication by other health workers; a description of the target audience that would allow others to judge whether the population they deal with resembles the population studied; a simple controlled study design with a sample size of more than 60 individuals or more than

two 'clusters' (villages or other units); the outcome of interest must either be a change in observable health related behaviour or in health status.

**Table 2.** Loevinsohn's (1990) Characteristics of a Rigorous Study

<b>CHARACTERISTICS OF A RIGOROUS STUDY (Loevinsohn, 1990)</b>	
1.	A study based on explicit theory
2.	Adequate description of how the strategy was adapted to local conditions
3.	Example given of materials or educational process employed
4.	Adequate description of resources required to carry out educational process
5.	Measured outcome before and after the intervention
6.	Period between education and outcome more than one year
7.	Evidence of community participation in design, goals or outcome measures
8.	Article claimed to show positive results for intervention evaluated
9.	Included discussions of possible bias or caveats
10.	Included p-values or confidence intervals
11.	Employed some form of modelling such as regression

Of sixty seven articles published between 1966 and 1987 (See Table 2), only three met the four main methodological attributes (Seyegh & Mosley, 1976; Stanton & Clemens, 1987; Ross et al., 1983), (See Table 3 below). Of the total potential articles only 47% provided enough description of the intervention to be replicated, 40% mentioned the literacy levels of the population, and, importantly, only 21% were controlled studies with a sample size of greater than 60 individuals or two main clusters. In terms of evaluating outcome, 33% measured success by change in health status whilst another 33% used observable changes in health behaviour as proxy indicator for reduction in disease.

On this basis of finding so few rigorous studies, Loevinsohn (1990) concluded:

*Given the paucity of methodologically sound studies it is difficult to reach any firm conclusions about the effectiveness of health education. From the few well-conducted studies it appears that health education can sometimes lead to changes in behaviour and in health status although there remains room for legitimate scepticism. It is also difficult to conclude from the available data whether any particular strategy is*

superior to any other. From the three articles that included methodologically rigorous evaluations it would appear that concentrating on a few messages, repeated frequently and in a number of different forums increased the likelihood of success (Loevinsohn, 1990).

**Table.3.**

Summary of achievements of 15 rigorous case studies (1975-2000) showing improved practices or reduction of disease (Loevinsohn, 1990; Cave and Curtis, 1997; Ahern, 2000).

Author	Year	Country	Focus	Type of Intervention	% improvement of practises	Reported Disease Reduction
<b>Lovinsohn Review</b>	<b>1990</b>			<b>Review</b>		
Sayegh & Mosley	1976	Lebanon	Contraception	Social planning	15%	N/a
Ross & Loening	1983	South Africa	Breastfeeding	Social planning		Not applicable
Stanton & Clemens	1987	Bangladesh	Diarrhoea	Social planning	49% of 1	1 x 26%
<b>Cave &amp; Curtis</b>	<b>1999</b>	<b>Review</b>		<b>Review</b>		
Haggerty et al	1994	Zaire	Diarrhoea	Social planning		11%
Lloyd et al	1994	Mexico	Dengue	Social planning	Decrease p=0.01	Not stated
Pant et al	1996	Nepal	Malnutrition	Social planning		RR = 0.25 & 0.59
Tayeh & Cairncross	1996	Ghana	Dracunculiasis	Social planning	56%	20%
Elder et al	1998	California	Heart disease	Social Marketing		Not specific
<b>Ahern</b>	<b>1999</b>			<b>Review</b>		
Allen et al	1992	Rwanda	HIV/AIDS gonorrhoea	Social planning	15% increase in condom 10% increase in use of spermicide	Gonorrhoea 13% to 3% in 24mths
Valente et al.	1994	Gambia	Family Planning	Social Marketing	Modern methods 19% to 30%	Not applicable
Alpasca et al.	1995	Philippines	HIV/AIDS	Cognitive Learning	Not found	Not applicable
Pinfold et al	1996	Thailand	Diarrhoea	Social Marketing	Finger contamination: Pre-intervention 4.1 to 2.7	Not measured
Morrow et al	1999	Mexico	Breast feeding	Social planning	Exclusive breast feeding	Reduction of infant diarrhoea : RR=2.2
Fawole et al.	1999	Nigeria	HIV/AIDS	Cognitive Learning		
Klepp et al.	1997	Tanzania	HIV/ADS	Social planning	Intervention: control Not significant	Not applicable

Loevinsohn is the first to point out that it is questionable whether generalisations regarding the success of hygiene behaviour change can be made on the limited existing evidence. However it would appear that his recommendations to focus on a 'few messages' have been more rigorously followed by subsequent researchers, than his strong appeal for more rigorous research (Cave and Curtis, 1999 and Ahern, 2000). Loevinsohn's findings (1990) led him to suppose that the health promotion was most effective when focused narrowly on one disease and when it only aims to change a few behaviours, with a few simple messages often repeated. Following this lead, the conventional wisdom on health promotion then shifted to endorse this approach.

Cave & Curtis (1999) who identified 242 articles of interest from grey literature and peer reviewed journals written between 1987 and 1999, found that none of these studies qualified using Loevinsohn's original criteria (See Table 2). This review decided to accept studies that had more than 60% of Loevinsohn's original eleven criteria, but this seriously affects the validity of some claims (See Elder et al, 1998; Section 1.7.2.).

Five studies (See Table 3) were identified (Elder et al., 1998; Haggerty et al., 1994; Lloyd et al., 1996; Pant et al., 1996; Tayeh & Cairncross, 1996). The eleven other studies that '*showed sufficient rigour to evaluate impact*', were rejected due to lack of evidence of behaviour change (Cave and Curtis, 1999).

Ahern (2000) used the same Loevinsohn 'blueprint', but divided the attributes into those that were *essential* and those that were *desirable*. Ahern's typology (See Table 4 below), shows the percentage of studies succeeding in these attributes.

After assessing a further 25 studies, Ahern (2000) found only an additional *seven* papers that were of sufficient methodological rigour to demonstrate behaviour change or improved health (Allen et al., 1992; Alpasca et al., 1995; Fawole et al., 1999; Morrow et al., 1999; Pinfold and Horan, 1996; Valente et al., 1994).

**Table 4. Essential and Desirable Attributes in Health Promotion Studies (Ahern, 2000)**

<b>Essential Attributes</b>		
1.	Description of target audience including level of education	32%
2.	A Controlled study with 60 individuals or two clusters	47%
3.	Adequate description of the promotion techniques resources and processes to enable replication	96%
4.	Outcome variable measured with p values and/or CI as well as measured before and after intervention	68%
5.	Confounding, bias and caveats addressed	60%
<b>Desirable Attributes</b>		
1.	Socio-demographic characteristics of intervention and control group measured and comparable	72%
2.	Details of cost of the intervention	4%
3.	Details of distance between groups and how cross-contamination was avoided	35%
4.	Details of project sustainability	20%
5.	A study based on explicit theory	12%
6.	Time-table for baseline survey, intervention and follow-up survey and evaluation	88%

These concerns notwithstanding, the three reviews identify a total of only fifteen interventions, and these now are taken to represent the most methodologically sound health promotion studies that have been published in the past 30 years (See Table 3 above). However whilst the criteria may provide a selection of rigorous research useful for the literature, the question should be raised whether these studies have also achieved sustainable development in the community.

## **2.6. ACHIEVEMENTS OF RIGOROUS STUDIES**

It is significant to this thesis that all fifteen of the studies selected have only focused on a single issue:

- Contraception (Seyegh & Mosley, 1976)
- Breastfeeding (Ross & Loening, 1983; Morrow et al., 1999);
- Diarrhoea (Stanton & Clemens, 1987; Haggerty et al., 1994; Pinfold et al., 1996);
- Dengue (Haggerty et al., 1994);
- Malnutrition (Pant et al., 1996);
- Dracunculiasis (Teyeh & Cairncross, 1996);

- Heart Disease (Elder et al., 1998);
- HIV/AIDS (Allen et al., 1992; Alpasca et al., 1995; Fawole et al., 1999; Klepp et al., 1997)
- Family planning (Valente et al., 1994).

### 2.6.1. Vertical or Horizontal Intervention

Discussion above has identified the difference between two discreet approaches: a vertical intervention that targets a specific condition without addressing the wider issues of health, and horizontal interventions that address long term determinants of health (Section 2.3 and Table 1). Out of the fifteen studies selected, all except one could be classified, as *vertical* interventions. Of this number, ten used the Social Planning Approach; three used Social Marketing; and one used Cognitive Learning similar to the Health Belief Model.

### 2.6.2. Social Outcomes

Only one (Elder et al, 1998) used the more 'horizontal' approach of Social Learning Theory (See 1.9.4), allowing a broader community led intervention. The objective in this programme, was to institutionalise the intervention so that it became part of the community. Elder et al., (1998) suggest that the project's effectiveness is proven by the fact that two of the four main interventions continued without donor support which is only a 50% success in the objective. This was the most community-owned of the 15 'rigorous studies' but no quantifiable achievements in disease control or behaviour change were mentioned, thus it failed in Loevinsohn's basic criteria, but was included by having < 60% of his criteria.

The other fourteen studies followed their research objectives closely and made no pretence at being community led. Only the project in Nepal, (Pant et al., 1996), having found that educated mothers were more responsive to the health recommendations, was sufficiently flexible to divert some its resources towards improving the literacy of women as well as pursue its own agenda, which was to establish whether health education or capsule distribution was the most cost-effective method of improving Vitamin A deficiency.

None of the studies reported additional training on any other related diseases that could have been coupled with the disease being researched. This would have indicated a more holistic approach (horizontal) to health promotion.

### 2.6.3. Health Outcomes

The outcomes in behaviour or reduction of disease of the 15 rigorous studies (See Table 3) are compared. Of those studies that reported improvement in behaviour change we find that the most significant were:

- 10% - 15% use of condoms and spermicides, Rwanda (Allen et al, 1992)
- 19% - 30% increase modern contraception, Gambia (Valente et al, 1997)
- 15% uptake of contraception, Lebanon  
(Seyegh and Mosley, 1976)
- 49% one out of three diarrhoea messages, Bangladesh  
(Stanton and Clemens, 1987)
- 56% filtering water to prevent dracunculiasis, Ghana  
(Teyeh and Cairncross, 1996).

Five articles out of 15 reported measurement of disease reduction as follows:

- 10% reduction in gonorrhoea, Rwanda (Allen et al., 1992)
- 11% reduction of diarrhoea, Zaire. (Haggerty et al., 1994)
- 20% reduction in dracunculiasis, Ghana (Tayegh and Cairncross, 1996)
- 26% reduction of diarrhoea, Bangladesh. (Stanton and Clemens, 1987)
- RR=0.2 - 0.59 reduction of malnutrition, Nepal (Pant et al., 1996)
- RR=2.2 reduction of diarrhoea, Mexico (Morrow et al., 1999).

The other studies did not state the rate of disease reduction, or were not specific.

### 2.6.4. Cost-effectiveness

Given the limited resources available for Health Promotion it is surprising that so few studies give details of the intervention in terms of its cost-effectiveness. Only one study (Pinfold and Horan, 1996) deals with this aspect, measuring the cost-effectiveness of achieving cleaner hands for some mothers in Thailand. This was estimated at US\$0.67 to US\$1.28 per beneficiary. Ahern (2000) found only 4% of his selected studies mentioned cost-effectiveness. Subsequently a paper by Borghi et al (2002) produced one of the few studies of cost-effectiveness that can be compared with the Community Health Club Intervention.

After a three year programme from 1995 -1998 using Social Marketing, in the second largest town in Burkino Faso with one third of a million inhabitants, the cost per



household was US\$8. Three quarters of the mothers (a small sample of only 8 households) recalled having some contact with the programme, while half could recite its two main messages. However, there were only three key messages in hygiene promotion drive. Results were significant: hand-washing with soap after handling children's faeces increased from 13% to 31%, and after using the latrine from 1% to 17%. Two other targeted behaviours increased marginally from 74% to 82% for use of potties for children, and 80% to 84% for safe disposal of children's faeces in a latrine.

This study is important for this thesis in order to compare the cost-effectiveness of the intervention of the two programmes (WSP, 2003). The overall cost of the programme was \$292,003 over three years (excluding start up costs) of which 42% was for administration, 30% used for research, whilst only 28% was actually spent on the health promotion intervention in terms of house-to-house visits, hygiene lessons in schools, street theatre and radio broadcasts. Borghi et al (2002) conclude that this study compared favourably with six other comparable studies citing cost-effectiveness (Tucker et al., 1998; Smith et al., 1995; Murray et al., 1998; Naficy et al., 1998; Esrey et al., 1985; and Huffman and Combest, 1990).

#### **2.6.5. Levels of Education or Literacy**

It has been shown that the mother's level of education is significantly correlated with the levels of her child's health and welfare (Caldwell, 1979; Sandford et al., 1997; Esrey and Habicht, 1998; Pacey, 1982, Levine et al., 1976). However, low levels of education are often associated with the lowest socio-economic bracket, where water and sanitation and hygiene standards may also be minimal, which may confound the association found between education and diarrhoea (Feachem, 1984). Religious practices may also affect levels of endemic cholera as found in Bangladesh where Hindus had over five times higher incidence than Moslems (McCormack, 1969). It is therefore important to know the literacy levels of a target population when drawing conclusions on the effect of interventions on reduction of preventative diseases. In addition levels of literacy should also be taken into account when planning a health promotion as this will affect the type of training method used, the number of messages and the complexity of the intervention. It was therefore surprising only two studies out of 15 gave explicit details of education levels of their target population. One in California (Elder et al., 1998) estimated the target population to be 38% semi literate; while Pant et al. (1996) recorded a 58% literacy rate in Nepal. In two of the studies added by Ahern (2000), the target population were the three senior classes in a school in Mexico (Morrow et al, 1999) and in Tanzania Klepp (1997) were targeting school classes of thirteen year old pupils. This lack of attention to reporting literacy

levels in the remaining 11 studies makes it difficult to assess whether the number of messages and complexity of the health promotion was appropriate for the level of education of the target population.

## **2.7. THOROUGHNESS OF INTERVENTION**

Three simple indicators of thoroughness are compared: the number of sessions/activities; the number of key messages for target population; and the number of observations used to verify behaviour change (See Fig.7). If there is an optimal exposure time to health promotion before behaviour change takes place, it could be reasonably assumed that in terms of budget spent on the thoroughness of the outputs, an intervention is more cost-effective *qualitatively* if the community has changed *many* practices rather than just one or two practices.

### **2.7.1. Number of face-to-face interactions**

Thoroughness can be assessed by the number of face-to-face interactions that have taken place between the health promotion agency and the target population, whether this be community meetings, home visits or clinic attendance.

Four of the studies did not specify the exact number of interactions (Haggerty, 1994; Lloyd et al, 1994; Pant et al, 1996; Teyeh and Cairncross, 1996), which suggests that this aspect was not considered important. Most of the Social Planning models that used community meetings or home visits show low number of face-to-face interactions:

- two visits in the contraception intervention in Lebanon (Seyegh and Mosley, 1976);
- two sessions for the breast feeding programme in South Africa (Ross & Loening, 1983);
- two video/discussions and examinations for gonorrhoea in Rwanda (Allen et al, 1992).

The most thorough studies were in Bangladesh, where Stanton and Clemens (1987) described an intensive eight week interaction with the community; the

Cognitive Learning HIV/AIDS programmes in the two areas of the Philippines (Alpasca et al., 1995); in Nigeria (Fawole et al., 1999) where there was a more intense interaction with school children through regular lessons using multi media; and in Thailand (Pinfeld and Horan, 1996) a number of workshops were run over a three to six month period for a diarrhoea intervention.

**Table 5.** Summary of type and thoroughness of rigorous studies and educational level of target population.

Author	Type of Intervention	Thoroughness of Intervention	Complexity of training	Indicators of change	Level of Education
Indicators of Perspective	Methodology	# interactions	# messages	# observations	
<b>LOVINSOHN</b>	<b>REVIEW</b>				
Sayegh & Mosley	Social planning	2 visits	1	1	Not given
Ross & Loening	Social planning	2 sessions	small	none	Not given
Stanton & Clemens	Social planning	8 weeks intensive	Not stated	3	Median = 0
<b>CAVE &amp; CURTIS</b>	<b>REVIEW</b>				
Haggerty et al	Social Planning	Meetings Not specific	4	Not specific	Not given
Lloyd et al	Social planning	Meetings Home visits	1		Not given
Pant et al	Social planning	Not specific	3	48 observations	58% literacy
Tayeh & Cairncross	Social Planning	House calls	2		Not given
Elder et al	Soc. Market		Not stated.	Not stated	38% semi-lit
<b>AHERN</b>	<b>REVIEW</b>				
Allen et al	Social Planning	2 videos + examination 1 discussion	1	Testing & Survey of Condom use	Not given
Valente et al.	Social Marketing	39 Radio drama 30 radio spots & training manual	Family planning	Use of modern methods	Not given
Alpasca et al.	Cognitive Learning	School lessons Education programme	Condom use & sex behaviour	Pre & post intervention survey	Not given
Pinfeld et al	Social Marketing	Workshops: multi media	Hand washing	Test of Finger contamination	Not given
Morrow et al	Social Planning	One week classes 2mths mother groups & home visits for 18 mths	Exclusive breast feeding	baseline interv 3 month 6 month control	80% (6 visit) 62% (3 visit) 24% (control)
Fawole et al.	Cognitive Learning	Education Programme 6 weeks; multi media & demos	Condom use & sex behaviour	Pre and post intervention survey	Senior three classes in sec. school
Klepp et al.	Social Learning Theory	Workshops, role play, Community discussion & IEC booklets etc	Risky sex behaviour	Individual interviews?	13 yr olds 7 community

The Social Marketing programmes in Gambia (Valente et al., 1994) and California (Elder et al., 1998) do indicate how many radio spots or dramas were presented, but cannot accurately assess who was exposed to the programme and for how many times. Data indicating a person's ability to recall a particular radio jingle do not necessarily indicate behaviour change. It would appear the

Social Planning intervention to promote breastfeeding (Morrow et al, 1999) was the most thorough on an individual basis as it describes an interaction of one week *intensive* training with mothers, followed by two months of meetings in mothers' groups, with two or more home visits to collect data.

### 2.7.2. Complexity of Training

By *complexity* of training is meant the number of key hygiene messages promoted in the training. All interventions were only targeting *one disease or condition*, and tended to focus on one or more key messages that could decrease that particular condition. For example: diarrhoea programmes stress disposal of children's faeces and hand washing; family planning and HIV/AIDS programmes aim to increase the use of condoms or spermicides; dracunculiasis programmes encouraged primarily the use of filters for drinking water.

All the studies had *less than four messages* indicating that all the interventions were vertical in their approach to preventative health. Only in the malnutrition programme (Pant et al.) was there more complexity, with 48 observations taken to indicate practises of nutrition. Pinfold et al., (1996) took finger tests to measure levels of faecal contamination of people's hands, and this could indicate a wider spectrum of behaviours as clean hands would depend on good hygiene generally.

## 2.8. STUDIES WITH HORIZONTAL INTERVENTIONS

Within the three reviews there was only one horizontal intervention perhaps indicating the difficulty of this perspective to produce the same precision as vertical interventions. Therefore for the sake of comparison with outputs from the intervention in this research two other studies (neither seemed to qualify for any of the three reviews), were selected by the author. These two studies (Torun, 1982 and Kroeger et al., 1996) represent interventions that are comparable to the Community Development Model, both achieving significant success not only in effecting behaviour change, but in community mobilisation and long term sustainability of the intervention.

An intervention that addressed the problem of diarrhoea in Guatemala (Torun, 1982) held a comprehensive training programme with five groups of mothers meeting once a week for nine weeks. Training materials were specifically developed and the participatory 'reflection and action' approach was used. Although the focus was only on diarrhoea, unlike most other studies there were 45 positive and nine negative messages, with twenty seven observations in the survey, as well as three key questions

on the prevention, transmission and cure of diarrhoea. Health knowledge increased by 19%, with a 33% change in behaviour observed.

Twelve years later a project in three countries in South America showed impressive results (Kroeger et al, 1996), especially in Ecuador and Columbia where the methodology used in Guatemala was repeated. The target disease in this case was malaria, and three main messages were conveyed. Using 'interactive learning', based on Paulo Freire's (1957) methods at health fairs, and an engaging assortment of specially developed materials, the enthusiasm of the community was evident from the report. In Ecuador after two years a 34% increase in health knowledge was reported, whilst in Columbia an impressive 93% increase after only one year suggests a real commitment from the community.

A health promotion programme in Bikita District, Zimbabwe is the only other study identified that reports on health promotion using Community Health Clubs (Mathew and Mukuwe; 1999, Mathew, 2005). This intervention is important for this study, because the methodology was identical to the Community Health Club Model as outlined in Chapter 5. Training of field staff for the intervention had been done by the author, and the same training materials and similar membership cards and were used, and 72 Health Clubs were established throughout Bikita District. After a year of intervention, a KABP (Knowledge, Attitudes, Behaviour and Practice) survey, with an 84 point knowledge checklist / questionnaire and using 17 indicators of home hygiene was undertaken in two Health Club villages and compared with two non Health Club villages. Findings indicated a '*clear trend of increased knowledge in health club areas.*' Amongst health club members as opposed to non-members, unprompted knowledge of risk behaviour in five topics were <20%, and were <10% in another three topics, and <5% in the remaining two topics. The pattern was similar in a selection of risk practices with seven risks practices identified by respondents without prompting: four risks being identified 15% more frequently by health club members, while 'not hand washing after the latrine' was 30%, and not having separate cups for drinking was 35% more frequently stated. Interestingly not hand washing before food showed only 10% difference between health clubs and control. Observation of risk behaviour also reflected a consistent trend with the control group having a range of between 5% - 35% more high risk practices in all 16 practices.

## 2.9. DISCUSSION

*... while academics seek problems and criticise, practitioners seek opportunities and act. Academics look for what has gone wrong, practitioners for what might go right (Chambers, 1983).*

Loevinsohn's formula '*few messages, repeated frequently and in different forums*' has been taken up in the majority of subsequent interventions, and is now accepted by many as best practice. However, as is demonstrated in Zimbabwe (Tichagwa, 1998) rural communities are becoming more sophisticated and literate as each decade passes, and what may have held true in the early 1990's, when literacy levels were lower in many areas, no longer applies in many developing countries (See Table 7). Such a simple menu as is offered in many of the studies above may even appear patronising to local communities, who have moved beyond the stage that is levelled at them. Hence the need for formative research in the design stage of the programme (Curtis, 2000). As we demonstrate in this study, rural men and women during this intervention have processed with ease an entire raft of messages regarding the prevention of diarrhoea, malaria, worms and skin diseases. Over 50 small behaviour changes were achieved, falsifying the theory that disseminating a few key messages is the best approach.

There is also a dearth of literature on the cost-effectiveness of health promotion as noted by Borghi et al (2002). Whilst the importance of methodological rigour of research studies is readily accepted, surely one of the most important criteria of an intervention is its achievements in terms of quality and quantity of health promotion resulting in behaviour change. Cost-effectiveness can be measured in more robust terms, than purely citing the cost of intervention, and the qualitative thoroughness of each intervention should be assessed alongside methodological rigour. Health promotion is more robust if it addresses a whole range of preventable diseases, rather targeting a single disease. It is not unreasonable to assume that it would be a more cost-effective use of resources to target *all* preventative diseases affected by poor hygiene practices simultaneously, rather than isolating a single disease from its context. Therefore given the guidelines in the Ottawa Charter which emphasize the determinants of health, it is surprising that most rigorous studies confine themselves within particular disease categories. To evaluate effectiveness of a health promotion intervention by measuring disease reduction is not always reliable as it is often subject to many confounding variables. The literature has shown that it is more effective to monitor behaviour change as a proxy indicator for disease reduction (Cairncross, 1990) whilst Feachem (1984) noted that there tends to be mainly theoretical explanations of approaches *likely* to succeed and only found three studies (Torun, 1982; Khan, 1982; Black et al.1981) in which health education had actually been shown to decrease diarrhoea incidence. He found from these three studies that hygiene improvement, especially the promotion of hand washing, had succeeded in reducing diarrhoea by between 14% - 48%. Although none of the three interventions specified costs, Feachem surmised that hygiene education would be more cost-

effective than other interventions such as water and sanitation but *that operational research was needed to clarify the most effective and feasible types of hygiene education programme, to detail their costs, and to assess their dependence on pre-existing levels of sanitary facilities* (Feachem, 1985). To calculate the cost per beneficiary a captive target audience is needed and not many interventions have a discreet section of a population that they can be sure have been exposed to health promotion. Additionally, to provide a cost-effective intervention administration and research costs need to be low whilst the number of beneficiaries needs to be substantial. Given the limited resources available more interventions are needed that are designed at the outset to measure cost-effectiveness.

*Public Health Practitioners have to make hard choices about how to make best use of scarce resources. Interventions of high priority should be those that*

- a) address a public health problem that has major consequences and*
- b) have demonstrated effectiveness against the condition in question and*
- c) are cost effective in comparison with other uses of the money.*

*In the case of diarrhoeal disease prevention we have a disease which is amongst the top three killers, an intervention of proven efficacy and now with this paper, an intervention which is cost-effective. Carefully designed programmes to promote safe hygiene can be both effective and cost-effective compared to other interventions targeting disease, although further research is required to strengthen this point. (Borghi et al, 2002)*





## CHAPTER 3 : Human Motivation

### SUMMARY

This Chapter is designed to give background into some of the concepts that will be used to analyse and interpret the qualitative data that has been collected for this research.

**Section 3.1.** provides a brief spectrum of theories of underdevelopment at the macro level from modernisation to dependency theory outlining some structural and economic aspects.

**Section 3.2.** shows how human motivation theory is split between the behaviourist and psychodynamic paradigms

**Section 3.3.** concentrates on psychodynamic theories of human motivation, giving some examples of studies which have opened up this field.

**Section 3.4.** focuses on the theories of Maslow (1954) and explains in detail the Hierarchy of Needs Model The pair-wise ranking exercises in Chapter 9 will be ranked using these categories of needs. Maslow's concepts of self actualisation and frustration tolerance are also discussed in relation to group dynamics in the health clubs.

**Section 3.5.** provides two examples of how the Hierarchy of Needs has been tested in the field in two studies (Aronoff, 1971; Ward and Wilson, 1980)

**Section 3.6.** outlines three positive motivations for behaviour change in the work of McClelland (1967, 1984) and colleagues, on the Need to Achieve, the Need for Affiliation and the Need for Power. The descriptive data in Chapter 9 will be coded using these concepts.

**Section 3.7.** discusses Fear of Failure and Fear of Success (McClelland, 1984) as two psychological conditions that can hinder self-efficacy (Bandura, 1997).

**Section 3.8.** outlines the concept of Social Capital (Kawachi and Berman, 2000) as the qualitative interviews (Chapter 9) will note the levels of trust and social networks developed in Community Health Clubs.

**Section 3.9.** discusses the Sustainable Livelihoods (DFID, 2000) to indicate how the Community Health Club Model can be positioned within this paradigm.

**Section 3.10.** revisits the key points of the chapter.

### **3.1. A SPECTRUM OF THEORIES RELATING TO UNDERDEVELOPMENT**

*Science is an economising enterprise. Its purpose is to explain as much as possible of the bewildering variety of events with as few basic constructs and laws as possible. In this respect the field of human motivation is no different: the goal is to find the fewest motives that will account for the most human behaviour.*  
(McClelland,1987)

#### **3.1.1. Modernisation Theories**

In the 1950's and 1960's development of the Third World was dominated by Modernisation theories that considered economic growth as a realistic strategy to enable society to progress. This perspective perceived that the 'trickle-down' of benefits from the fast adapters was a natural process of modernisation, and this led to later theories of Diffusion of Innovation (Rogers, 1983; Diamond, 1997). This evolutionist perspective can be traced back to one of the earliest sociologists, Emile Durkeim (1897) later applied by a group of functionalist sociologists, (Parsons,1964; Merton,1957; McClelland, 1967) who attributed levels of development to the value systems that underpinned traditional and modern societies. They argued that transition from one economic system to another depended on a prior changes in values, attitudes and norms.

#### **3.1.2. Dependency Theories**

By the late 1960s and early 1970's, Functionalism was being challenged by a radical Marxist Theory of Underdevelopment that attributed lack of 'progress' in developing countries to the impact of colonialism and imperialism and emphasized how the power to control resources had been denied to indigenous populations (Webster, 1990). Dependency theorists gave political reasons for the underdevelopment of the Third World, providing a fresh post-colonial interpretation of the structural imbalance of economies (Frank, 1969; Warren, 1980; Apter, 1988) which have largely dominated the development sector in the past thirty years. Franz Boas (1962) exposed the shortcomings of the grandiose schemes of cultural evolution which had been proposed by earlier theorists, and the idea that a culture should be judged by its own standards and values rather than those of the investigator is now common practice (Haviland, 1993). Whilst many theorists focus on socio-political reasons for underdevelopment, environmental factors may also inhibit the diffusion of ideas, and an interesting thesis is that development has tended to spread along latitudes rather than across longitudes and showed how agricultural and technological innovations has tended to spread along

climatic zones such as the Mediterranean climatic zone which divide along latitudes, and as been inhibited by natural barriers such as the Sahara Desert (Diamond, 1997).

### **3.1.3. Disempowerment Theories**

A significant influence on development thinking has been Paulo Freire (1970), have influenced theorists across disciplines who attribute lack of development to the disempowerment of the masses. The idea of 'praxis' (reflection and action upon the world in order to transform it), and the need to development the critical awareness essential in reflexive participation, is now the theoretical basis in the participatory approach (See Section 4.7) in many community programmes (Kroeger et al., 1996, Section 2.8). Freire's concern with empowerment of the masses through the 'people-centred' approach, has influenced the development sector and ousted the 'top down' Social Planning approach by the late 1980's. The trends of development which have affected the health promotion sector *per se* (Nutbeam, 1999), have been covered in Chapter 1 (See Section 2.2).

### **3.1.4. The Macro level : Structural Reasons for Underdevelopment**

At the macro level, underdevelopment has been contingent on political factors and economic policies. One of the consequences of the ending of the East-West division in simple terms is that the West (including Japan) and Western dominated multinationals have now become the only source of aid, capital and technology for the Third World states and thus enjoy a leverage unprecedented since decolonisation over the economic strategies in most of Africa and South Asia' (Ravenhill, 1990). Whilst some countries such as Tanzania and Zimbabwe had tried to de-link from world capitalism with home grown African models of state socialism, these attempts were undermined by the end of the Cold War and the dissolution of Soviet Union. Lack of external support for socialist policies diminished the viability of alternative development models to capitalism (McGrew, 1992). Global capitalism, the debt burden of developing countries and lack of economic growth, have forced some countries such as Zimbabwe to accept the imposition of economic structural readjustment policies (See Section 4.4.2), in order to receive Western assistance (Auret, 1990). The new global order under dictated by one superpower is perceived by Neo-Marxists as renewed western aggression against the Third World as opposed to the Communist Bloc (Amin, 1990). Neo-liberals interpret this dominance of Western-led democratisation as the beings of an encouraging transformation of the global order in a positive direction (Fukuyama, 1989). The decline of the Zimbabwean economy has illustrated Sen's theory as to the effects of dictatorship (1999). The denial of basic freedoms to the population with political control of resources can turn a drought, which in a free society can be

contained into a national famine, as recently demonstrated in Zimbabwe. Lipton's theories of Urban Bias (1977), which provide not a 'north-south', but a 'rural-urban' explanation for underdevelopment, may also give insights into the political control in Zimbabwe where urban elites are controlling resources (UN Habitat, 2005).

### **3.1.5. Social and Cultural Reasons for Underdevelopment**

Whilst it is acknowledged that there are structural political and economic reasons for underdevelopment at the macro level, (as mentioned above), theorists in the field of Social-psychology have also provided interesting theories giving reasons for social and cultural underdevelopment. Theories of human motivation examine at the micro level, why some groups or individuals change, whilst others do not. Some of the theories that have informed this research are mentioned briefly below, whilst those that will be used to analyse the qualitative research (Chapter 9) are given in more detail. (Maslow, 1954; McClelland, 1967).

## **3.2. OVERVIEW OF THEORIES OF HUMAN MOTIVATION**

*The greatest mystery of the universe and the least conquered force in nature remains the human being, his actions and human experiences (Kanfer and Scheff, 1988).*

Human motivation, the ability to predict the behaviour of a person based on inner drives and incentives, is one of the most elusive quests in scientific research (Freud, 1918; Murray, 1938; Hall & Linzey, 1957; Rogers, 1951, 1966; Cattell, 1957; Zajonc and Sales, 1966; McClelland, 1984; Bandura, 1986). The mechanism of human functioning is far from being understood and in the last century there were credible attempts to provide theories that account for certain behaviour from many perspectives, stretching across a number of disciplines (Psychology, Sociology, Social Psychology, Social Epidemiology, Anthropology). Across these fields perspectives on the perception of human nature tend to divide into two broad paradigms. This division depends (in the simplest classification) on whether the theorist believes that humans are self-directed from within with *innate* tendencies (Psychodynamic school) (Aich, 1910; Smetana and Adler, 1980) or are conditioned by *external* triggers will all behaviour learnt by experience (Behaviourist school) (Thorndike, 1911; Hull, 1943).

## **3.3. PSYCHODYNAMIC THEORIES OF HUMAN BEHAVIOUR**

Social Psychology aims to provide a theoretical simplification of the complexity of man's individual psychology to account for and predict social behaviour. Psychological

theories which focus on the individual, explain particular behaviour in terms of personal experience and needs, often using the subconscious to account for conscious behaviour (Freud, 1918). Bandura explains the Psychodynamic paradigm as follows:

*Human behaviour is commonly viewed as motivated from within by various needs, drives, impulses and instincts. In psychodynamic theory, human behaviour is the manifestation of the dynamic interplay of inner forces, most of which operate below the level of consciousness (Bandura, 1986).*

For example, Lewin (1935) provided a formula to predict whether motivation would be successful in producing change. He reasoned in his Model of Motivational Conflicts that the *intent* (psychological force) was the outcome of *Need* (the desire for some end state) multiplied by the *Valence* (the reward value for the end state, divided by an environmental variable called the *Psychological distance* (the difficulties of performing the task). Conscious goal setting is also shown to affect performance. Mace (1935), in an early experiment showed that those who were given specific targets for each day did better than those who were asked to do their best to improve with no specific standards to achieve. Jenkins (1933) demonstrated that although conscious intent does facilitate learning, this process can happen *without* conscious intent. In the Attribution Theory, Werner (1979) distinguishes four main dimensions of attribution that people use to explain their world:

- § *Locus of causation* which locates the cause as external or internal to the subject
- § *Controllability* which assesses if the causes can be controlled by the subject
- § *Stability* which judges the cause on a stable-unstable continuum
- § *Globality* which estimates how widely spread and all pervasive the cause is.

There is less likelihood of the subject ever attempting to change the situation if the problem is cannot be controlled; or if the problem is likely to endure, or, in the worse case if the problem is global (Lewis and Daltroy,1990). The Social Learning Theory (Bandura, 1977, 1986, 1995; Strecher, et al, 1986; Rosenstock, 1990, Baranowski et al, 1997) demonstrates how the behaviour of individuals and their environment constantly interact in a dynamic two way process termed 'reciprocal determinism'. According to Bandura (1986), three important contributory factors in effecting change are:

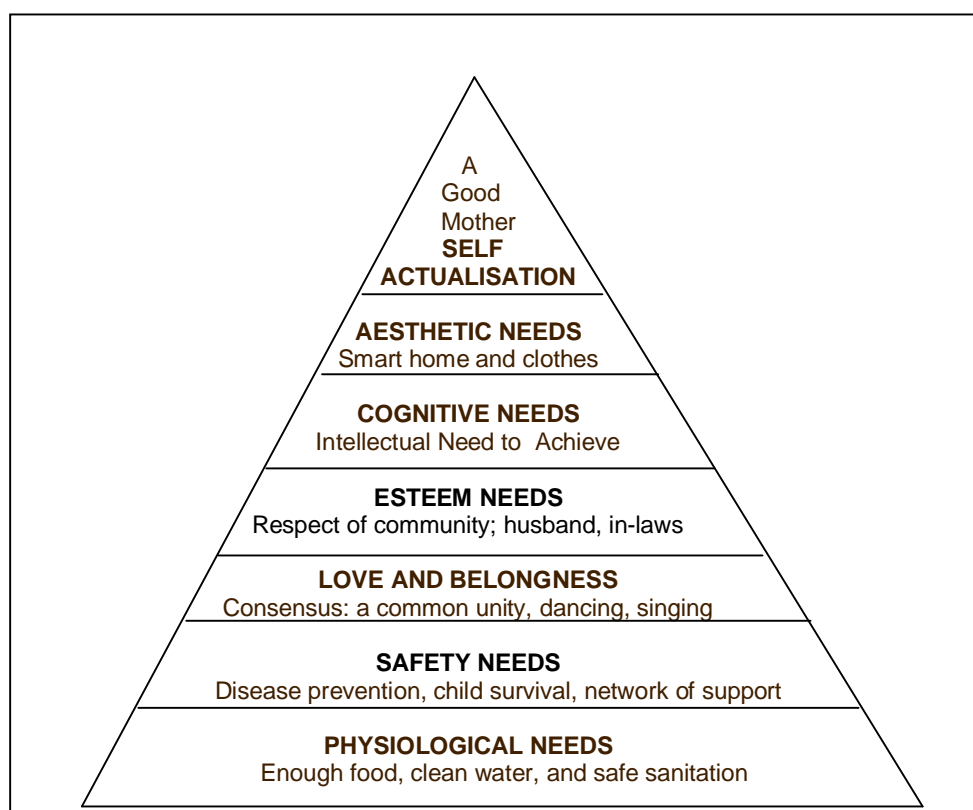
- observational learning (emulating others),
- expectations associated with behaviour change,
- the perceived personal capacity to effect change (self efficacy).

Self-efficacy is one the key concepts which will be used to explain the change taking place in women in particular, within Community Health Clubs, and could be an explanation for personal ability to challenge existing norms and values within the community.

### 3.4. MASLOW'S HIERARCHY OF NEEDS

Maslow (1954) viewed human nature optimistically, and saw people as constantly striving to improve. He contributed a positive view to the study of human motivation, which was to strongly influence the humanistic psychology movement. His theories bolstered the post-war liberal view that poor people were unable to progress because they were occupied in achieving their most basic needs and therefore had little time for self-improvement.

*Fig 3: The Hierarchy of Needs Theory applied to the appeal of the Community Health Clubs (Maslow, 1954, adapted by author)*



Maslow's Hierarchy of Needs Model (1954) (See Fig. 3 above) continues to be particularly relevant in developing countries because absolute poverty still exists and the basic needs have not been met, unlike in the industrial countries where there is only relative poverty. In addition there are vast gaps between the very rich and the very

poor. The spectrum ranges from emergency situations where starvation is rife and existence is threatened by war and disease, to well ordered communities urban and rural communities have the other needs have been fulfilled and there is time and resources to support activities leading to Self Actualisation. In the context of this research the Model is useful because it can be translated into a local context. Maslow's Hierarchy of Needs can be applied to a subsistence culture in Africa, in this study the Shona and Ndebele people of Zimbabwe.

Maslow believed that the nature of man is to push forward to a higher need once a lower need is satisfied, and that, at every level of society, people cannot rest content with their lot and are driven to improve wherever possible, thereby slowly ascending the Hierarchy of Needs.

*We may still often (if not always) expect that a new discontent and restlessness will soon develop, unless the individual is doing what he, individually is fitted for.*

Maslow placed lower in the hierarchy, the Needs that he saw as deficient in that they sought to compensate for discomfort, lack of safety or love. On the other hand the 'meta-needs', or what Plato termed 'better desires', were associated with (for example) the yearning for justice, beauty, goodness and order. To illustrate his theory, Maslow described the development from basic society, where food and shelter and safety were salient needs, towards a more settled society where leisure and security allowed the luxury of the pursuit of knowledge, wisdom, and the time to develop talents and insights, which he termed 'self-actualisation'.

However he does make a proviso that to allow progression from the Basic Needs to the higher Needs there must be basic freedoms, which he describes as follows:

*Such conditions as freedom to speak, freedom to do what one wishes so long as no harm is done to others, freedom to express one's self, freedom to investigate and seek for information, freedom to defend oneself, justice, fairness, honest and orderliness in the group are examples of such preconditions for basic need satisfactions (Maslow, 1943).*

This need for human rights to exist in order for people to progress is a pertinent issue in Zimbabwe, and it is one of the interests of this research to monitor health club activities over the past five years during which there were few human rights and little security in Zimbabwe (Meldrum, 2005).

### **3.4.1. Physiological Needs**

At the lowest level of needs for human existence are the Physiological Needs. These constitute the basics of life (food, safe water, and clean air). These prerequisites for survival are also the minimal needs for a subsistence farmer in Zimbabwe, and under normal circumstances most were able to produce enough food for their own family. Levels of water provision were also relatively high in Zimbabwe (See Table 8, Section 5.2) although these have too fallen with many reverting to unsafe water. At the time of the intervention safe water coverage was as high as 85% in most rural areas (NAC, 2000). However these physiological needs have escalated rapidly in the last five years as general standard of living has deteriorated with food shortages country wide (See Section 4.5.1) and falling water provision (See Section 4.5.2).

### **3.4.2. Safety Needs**

Having security of food and water, the next most important priority is survival, or as Maslow terms it the Need for Safety. In a peaceful society Safety may refer merely to the protection of personal freedoms, whilst in politically unstable countries, personal safety means protection from physical violence, and survival of life. In the Zimbabwean context at the time of the intervention (1999-2001) the Need for Safety was interpreted as a need for child survival, prevention of life threatening diseases and a social support network from the community. However in the subsequent five years during which there were three election accompanied by political unrest, physical survival has been threatened by lawlessness, political intimidation and general insecurity of property and livelihoods throughout the country and particularly in the rural areas (See Section 4.4.4).

### **3.4.3. Esteem Needs**

According to Maslow (1954), if personal security is assured, and life can be lived without fear of attack, the Esteem Needs may become salient. Esteem refer to the need for respect from fellow citizens, from family, and the desire to elicit approval and respect from peers. In this context it is interpreted as the individual need to develop self-efficacy, self-confidence and a sense of personal achievement. Many cultures throughout Africa place a particular high value on respect for the elderly and the esteem of the in-laws is particularly important for success in marriage (Gelfand, 1979). This value of respect is also a major characteristic of Shona and Ndebele cultures in Zimbabwe (Section 4.2) and the qualities that are most valued in a wife are politeness and respectful behaviour (Weinrich, 1982).



#### **3.4.4. Need for Love and Belongingness**

Similar to Esteem but on a more personal level, is the *Need for Belongingness and Love*. This need encompasses the sociability of people and the desire for affiliation and affection. Maslow (1954) justifies his inclusion of Love and Belongness in the Hierarchy of Needs:

*A man who is thwarted in any of his basic needs is a sick man. This is a fair parallel to our designation as 'sick' of the man who lacks vitamins or minerals. Who is to say that a lack of love is less important than a lack of vitamins? Since we know the pathogenic effects of love starvation, who is to say that we are invoking value questions in an unscientific or illegitimate way, any more than the physician does who diagnoses and treats pellagra or scurvy?*

It would appear in the context of Shona and Ndebele culture, the need for belongingness is particularly pertinent (Kriel, 1971) as values are based on the extended family, and importance of the clan. One of the key assumptions of this thesis is that as the trait of sociability operates on group consensus, rather than on individual achievement (See Section 5.2.2) the Community Health Clubs will be culturally appropriate in that they generate a sense of good rapport. Love and Belongingness is therefore a particularly relevant aspect of life in the rural Zimbabwean communities that this research addresses.

#### **3.4.5. The Cognitive Need**

Maslow's research for the hierarchy of Needs own studies were all on well-educated people, and at first (1943) he questioned whether the Cognitive and Aesthetic Need was likely to be as salient in uneducated people, and were only included in later work (1954). In this intervention, the Cognitive Need is important as a motivating force for semi-literate women to 75% and there are ample indications of the interest rural women have generally in learning (Burke, 1997; Auret, 1990) and intellectual activity and how little outlet they have for this Cognitive Need, constrained as they are by customary attitudes and beliefs that subordinate them, whilst their duties ensure they are largely house-bound (Tichagwa, 1998).

*Urban women are often better educated than their rural counterparts and more aware of gender inequalities. These rural-urban differentiations have put urban women in a better position to initiate*

*programmes for women and to establish women's organisations. A challenge which more enlightened women face is how to match their self image with appropriate action for the entire women's population, but especially for rural women who have few alternatives to peasant agriculture. Their creativity is hampered by illiteracy, ignorance and lack of resources. So the proliferation of women's clubs and women's income generating projects has not led to increasing economic independence. For the foreseeable future rural women will be dependant on peasant agriculture which men control. Without resources for alternative ways of survival, new strategies must be found to enable peasant women to break out of the peasant economy. (Tichagwa, 1998)*

The question remains; Is the cognitive need salient in rural women and if so will they respond to opportunities to improve themselves through increased knowledge and skills? Community Health Clubs have given peasant women this opportunity and the research will provide interesting indications that the Cognitive Need is highly developed in semi literate subsistence farmers in Zimbabwe.

#### **3.4.6. The Aesthetic Need**

Decoration and ornamentation represents an investment of considerable time and energy, and therefore can be taken as an indicator of a strong need for the aesthetic. This enjoyment of beauty and order, is a facet of local culture for which there are seldom resources. Superficial appearances may be considered a luxury, when many life threatening issues need to be addressed, and Maslow places the Aesthetic Need second highest in his hierarchy. However, during the course of the intervention there was substantial empirical evidence of the pride that women took in their homes, beautifying their kitchens and utensils, (See Photographs of a kitchens in Makoni Fig. 22 and Tsholotsho Fig. 24). Club members were also aware of their own physical presentation at health club meeting, investing time and their own money to make uniforms and appear smart.

#### **3.4.7. Self Actualisation**

At the highest level of the hierarchy is *Self Actualisation*, the desire for the fulfilment of self. This concept is formed largely by Maslow's observation during his research on the well educated elite of Euro-America. His concept of Self Actualisation is explained as follows:

*A musician must make music, an artist must paint, a poet must write, if he is to be ultimately at peace with himself. What a man can be, he must be. This need we may call self actualisation.... It refers to man's desire for self fulfilment, namely for the tendency for him to become actualised in what he is potentially (Maslow, 1954).*

In order to be relevant to this research, this idea needs to be translated into a more universal concept that will account not only for the desire of the privileged to improve their talents, but also for those amongst the poor who strive to achieve.

Self Actualisation is not the sole domain of men: equally, what a woman must be she must be! Research into women's perception of their *raison d'être* in this intervention reinforced well documented Shona and Ndebele values placed on maternal fertility (Tichagwa, 1998). Women identified that their prime *raison d'être* was to look after their families. By implication therefore, being a successful mother would justify self-fulfilment of a woman's existence (Auret, 1990). While these conservative gender values may be considered limited by feminist standards (Tichagwa, 1998), Self-Actualisation for a rural mother is taken to mean achieving proficient women-hood: to be well-informed, wise, progressive, respected, polite, clean and smart, and in accordance with cultural mores, able to run a homestead, and raise children that will make the husband proud before his own family and clan. Therefore to operationalise Maslow's concept of Self Actualisation when applied to the culture of subsistence farmers in Zimbabwe which attributes high value to motherhood (Auret 1990), it has been explained in simple terms as the ability to become a 'Good Mother' (See Section 4.2.2).

Maslow (1954) describes a society, which thwarts the ability of its citizens to fulfil any of their basic needs, as a society is in a state of sickness. This approach reflects the holistic definition of health as identified in the Ottawa Charter (1986), which defines health in terms of social and structural factors as well as disease reduction.

#### **3.4.8. Frustration Tolerance**

One of Maslow's most interesting insights (1943) that may be applied to rural development is the psychological 'fall-out' that occurs in later years as a result of the lack of satisfaction of needs in early childhood. He contends that if, for example, the basic need for safety is satisfied before the age of two, then the adult will be well adjusted and able to cope with threatening situations because a basic sense of security has been established that cushions later frustrations. This stoicism in the face of extreme hardship and poverty he terms 'frustration tolerance' and the term

epitomises peasant resilience in Zimbabwe. Maslow demonstrates his ideas about psychological fall-out by looking at children's reactions, because these are more clearly expressed than the reactions of adults, who tend to hide their feelings in public. He concludes that the deep fear of insecurity, developed in childhood, will condition the adult into primarily seeking personal safety in later life and terms this a 'safety seeking mechanism' Allport (1953) entered into a debate with Maslow to clarify the difference of physiological needs between infants and adults, arguing that whilst infants may be de-motivated primarily by the need for food, mature adults possess a functional autonomy of motives. He argued that the higher needs such as Self Esteem can develop independently from the basic needs.

### **3.5. APPLYING MASLOW'S HIERARCHY OF NEEDS**

Maslow's (1954) insights into human nature have provided a rational framework for the satisfaction of human needs, he never empirically demonstrated his model in the field. Maslow's work has challenged a few social psychologists to put his model to the test at community level. This study intends to test Maslow's Model (See Section 3.4) in Community Health Clubs to establish if the hierarchy can explain the needs of subsistence farmers, and particularly women, in Zimbabwe.

#### **3.5.1. The Need for Security**

An interesting study was done by Aronoff (1971), who tested the Need for Security with Pacific islanders, (one group of fishermen and another group of sugar cane cutters), using a simple sentence completion test based on their means of livelihood. There was less financial incentive to become a cane cutter, although it offered more security but Aronoff demonstrated that cane cutter's the need for security outweighed the financial incentive of being a self employed fisherman. He showed that their choice of job could be attributed to a basic insecurity in their outlook, as those in need of security were correlated significantly with those who before the age of twelve, had experienced death of a parent or sibling. His confirmed his hypothesis that adult occupation is often motivated by needs established in childhood.

#### **3.5.2. Need for Self Esteem**

Ward and Wilson (1980) conducted a social experiment that related the Need for Self Esteem to peer pressure. Using Aronoff's method of sentence completion, the experiment was conducted on women undergraduates in the United States of America that had been assigned into two groups: those high in the Need for Safety and those high in the Need for Self Esteem. Those who scored high in the Need for Safety

tended to change their opinions and lower their moral reasoning in response to peer pressure, whereas those high in self-esteem remained convinced of their original verdict and did not bow to group pressure. The conclusion that could be drawn from this is that by developing Self Esteem, (self efficacy, Bandura, 1997), women may be more equipped to maintain their own course of action despite peer pressure. Alternatively if a person is low in Self Esteem, they will rely on peer pressure to justify their belief.

The Hierarchy of Needs provides a framework within which human needs can be analysed in seven discreet categories. This enables analysis by which the health club members can evaluate their own priorities and their motivations for joining the Community Health Club. This technique using pair-wise ranking to compare the different categories of needs defined in Maslow's Hierarchy of Needs is described in Chapter 7 and the results of the exercises done with seven Community Health Clubs are described in Chapter 8.

### **3.6. THREE POSITIVE MOTIVATIONS OF HUMAN BEHAVIOUR**

Murray (1938) identified a list of what he considered were universal human needs. The most interesting for this research are the Need for Achievement, the Need for Power and the Need for Affiliation, which have been extensively investigated in studies associated with the theories of McClelland (1984). As the Need for Power, Affiliation and Achievement will be key concepts used in analysing the attraction of the Community Health Clubs, it is necessary to explain these concepts in more detail.

#### **3.6.1. The Need for Achievement**

The Need to Achieve is a human motivation based on the Variety Incentive, which is three-part process: sign stimulation, natural incentive and change. Curiosity or the variation from expectancy (the sign stimulus) triggers an interest and pleasure in learning (natural incentive), which then leads to the exploratory behaviour known as change (the consummatory experience) (McClelland, 1967). An individual that ranks high in the *n Ach* has been characterised as one who likes to take personal responsibility for a job and be self-directed, who enjoys feedback from moderately challenging tasks that best demonstrate his/her degree of proficiency, and who constantly adjusts their goals to improve their skills (McClelland, 1967).

McClelland (1984) maintains that the Need to Achieve (*n Ach*) is not determined by national, climatic or physiological characteristics, as was previously assumed (Huntington, 1915), but by the *degree* of challenge from each social environment. The

degree of challenge is contingent upon values held within the society, and these values change as civilizations rise and fall in influence and creativity. Levels of *n Ach* vary across nations and time and can be measured. This cultural explanation for progress, follows the ideas of Weber (1904, 1930) who showed how cultural values of hard work and thrift gave rise to the Protestant work ethic in 18<sup>th</sup> century Europe, and the beginning of western capitalism. McClelland (1967) found that level of *n Achievement* can be determined in a number of ways: by assessing national levels of productivity based on power consumption, analysing the dominant themes and values in popular art, theatre and literature, as well as variations in child rearing practices. National fluctuations in energy consumption were also used to measure changes of achievement levels in longitudinal studies throughout different periods of history showing the rise and fall of achievement levels correlated with times of expansion of those nations (McClelland, 1987). One method of measuring *n Achievement* has evolved from a system of coding pictures developed by Murray (1938) in controlled experiments. Later studies measured levels of *n Achievement* across a variety of cultures in America, Germany, Italy and Japan (McClelland et al. 1955; Winterbottom, 1958; Rosen 1959; Veroff et al., 1980). McClelland shows how literature developed for schools is used to inculcate values of high achievement, and that popular songs and plays can be used to modify values (McClelland, 1987).

The importance of these studies in this research, is that McClelland's work shows that high or low achievement levels are not innate to any particular country or culture, but that they can be moderated according to the *cultural norms* of the period. By implication this also means that as values can be adjusted by literature and visual aids in schools, so can this process of social engineering be applied in the community. The Community Health Club Model proposes that by creating a culture of health, values will change from cyclical worldview to a linear worldview and levels of *n Ach* will rise. Curiosity leading to pleasure in learning and resulting in changed hygiene behaviour is the objective of the Community Health Club Approach. (See Section 5.4.3)

### **3.6.2. The Need For Affiliation**

The Affiliative Motive can also be divided into three stages: The need of physical contact (touching, hearing or seeing another person) is the sign stimulus, which leads to the feeling of loving or being loved, and joy (the natural incentive) and to the consummatory act which is seeking and exchanging contact with others, (McClelland,1987).

Affiliation is '*the concern over establishing, maintaining or restoring a positive affective relationship with another person or person*' (Atkinson, Heyns and Veroff 1954). The

need for Affiliation is may be compared to the Need for Love or Belongingness (Maslow 1954). See Section 3.3.4). Human beings are social by nature and appear to have a basic desire to be with other members of their species The strength of this need varies from person to person according to inherent traits, skills and opportunities and in different societies in which culture either encourages or inhibits the affiliative tendency (Morris, 1987). McClelland and his associates researched the variations between individuals and between nations in an effort to find underlying principles that trigger the motivation towards affiliation.

High *n* Affiliation is characterised by a concern for social approval and acceptance, which is a stronger incentive than the personal pleasure of self-achievement. People high in Affiliation apparently have the following characteristics: they are more sensitive to other people's facial expressions and body language, they learn social relationships more easily and engage in more dialogue with others to keep all social networks operative (Lansing & Heyns, 1959, Boyatzis. 1973). People with high *n* Affiliation prefer friends to experts as working partners (French and Chadwicke, 1956) and tend to give feedback on how well the group is doing rather than how well they themselves are performing. The inverse of *n* Affiliation is fear of rejection by peers (See Section 3.7).

In societies where survival depends on people's interdependence, the avoidance of conflict is an important survival mechanism. This means people depend on each other rather than on personal efficacy. It follows that people with high levels of affiliation will operate more effectively in groups. Consensus is an important cultural mechanism. On the other hand people with a high need for achievement tend to relish personal challenges even at the expense of alienating peers. Therefore *n* Affiliation is an important psychological trait which may explain the group dynamics at work within the health clubs.

Classic social experiments on conformity (Asch, 1955) show how people in general conform to group pressure if exposed to persuasive argument even if they can see the group decision is demonstrably false. McClelland, (1967) did content analysis of folk tales in different societies to measure levels of *n* Affiliation as he believed like *n* Achievement that popular literature can indicate the collective concern for affiliation. Countries also vary in their *n* Affiliation with some showing more respect civil rights and amount of value placed on family and children. Indicators used included levels of wife beating and infanticide, residence distance of daughter, frequency with which children are obedient, and dependency on others for help in adulthood (McClelland et al., 1972). Other studies have shown societies high in *n* affiliation tend to have lower psychogenic death rates from homicide, suicide (Durkeim, 1895), ulcers, cirrhosis of the liver and hypertension (Barett and Franke, 1970). More recent research on Social Capital

(Kawachi et al., 1996) show how levels of heart disease and other stress related disease have diminished, in states where there is high Social Capital. Even levels of crime have been reduced where there are strong social networks which fulfil the need for affiliation (Kawachi et al., 1999a).

### **3.6.3. The Need For Power**

The third of the three positive motivators of human behaviour is the Need for Power. Assertive behaviour can be a disruptive social force, there is often considerable socialisation during childhood to suppress the Need for Power. However those high in *n* Power are likely to demonstrate this need in adulthood by culturally condoned behaviour. As expected, individuals with high *n* Power are more competitive and assertive, enjoying sport and argument, and choose occupations where they are in a position to influence people, such as being teachers, psychologists, ministers or journalists.

In Zimbabwe, patriarchal values in the Shona and Ndebele cultures, reinforced by Christian values of obedience and meekness before their husbands have largely succeeded in sublimating women's Need for Power (Tichagwa, 1998) (See Section 4.2.3). Some urban women are beginning to claim equity with men, although women's participation in formal decision-making structures is still minimal. Even in industrial nations where the feminist movement has been successful in achieving gender equity since 1960's, women still tend to be more socio-centric than men, and less interested in power. One study (McClelland 1975), shows that women tend to join voluntary organisations, loan their possessions more frequently and enjoy helping others, all affiliative qualities rather than indicative of a need for power. With a low need for power, women will tend to leave the management of their lives to men, so reinforcing the status quo, and entrenching cyclical world view. To counteract this marginalization of women a need for Power should be developed through the building self efficacy (Bandura, 1997) in each woman.

Dominance feeling is a concept that can be compared to self efficacy. It is the basic attitudinal response of an effectual person; one who is able to manage his/her own affairs without recourse to external support. It is this quality which is most important in the context of empowering women (building the need for power) as a positive assertive quality that can induce the capacity to change. The opposite is low dominance Feeling which inhibits decision-making and action, and typifies attitudes amongst those who feel disempowered. Table 6 shows the attitudes to be found in those with Low and High Dominance Feeling. Empowerment is the transformation which happens when a person



changes from attributes of low dominance feeling to those of high dominance. This is the process which occurs during the time spent at weekly health sessions over a period of between six months and a year (See Section. 5.4.5.).

**Table 6:** *The attributes of dominance and lack of dominance feeling* (McClelland, 1987)

<u>LACK OF DOMINANCE FEELING</u>	<u>DOMINANCE FEELING</u>
Uncertainty, lack of confidence	Self-confidence
Feeling of general inferiority	Feeling of self-esteem
Shame or lack of pride	High self respect and evaluation of self
Weakness, admiration for others	Conscious feeling of 'superiority'
Feeling of being looked down on	Feeling of sureness with respect to other people
Wanting to be like others	Feeling that others do/should admire/respect one
Wanting to be dominated by others	Feeling of mastery
Lack of faith in oneself and in one's abilities	Feeling of being able to handle other people
Feeling shy, inhibited, timid, unworthy	Absence of shyness and timidity
self-conscious and embarrassed	Absence of self-consciousness, or embarrassment
Dissatisfaction with ones self	Feeling of pride
Lack of calm, ease, natural assurance	Feeling of general capability
Restraint and tension	Forcefulness of personality, strength of character
Fearfulness of high dominance people	

### 3.7. FEAR OF FAILURE AND SUCCESS

The fear of failure, is a powerful determinant of behaviour, which is strongly associated with the need for social or parental approval and can be responsible for negative achievement. People are afraid to fail because they might appear foolish in public, therefore they are not prepared to risk losing face. This is a competitive instinct similar to animal behaviour where animals seldom engage in fights unless they have a chance of winning. The display dances and mock attacks help them to gauge whether they have a chance. If they realise they are significantly less than their opponent they will back off for self-preservation (McClelland, 1987). 'Saving face' in human behaviour, is a way to maintain self esteem, and respect from others. People low in *n* achievement fail more regularly than others, because they are poor at gauging their own capacity: they tend to set themselves unrealistic targets. Those high in *n* achievement have been found to set realistic targets which they know they are able to achieve with a reasonable amount of effort. The reason they do this is that they enjoy measuring their own success by giving themselves achievable objectives. Once the target is met they proceed to the next level, satisfied with the knowledge they are within reach. By contrast, unrealistic targets usually result in failure which further reinforces an individual's perception of themselves as

inadequate (McClelland, 1987). The ability to set realistic targets is important in development programmes, where women are being empowered as they need to develop their self confidence which in turn increases self efficacy (Bandura, 1997) – their perception of their own ability to succeed.

In Development programmes planners must ensure that cycle of 'failure/self-doubt/poor targeting/failure' is avoided by planning realistic targets with the community to ensure that they reach the standards they had set for themselves. Failure to achieve set targets will further damage the self efficacy of women. It has further been shown that children who grow up with '*parents who are strongly authoritarian, rigid, and punitive tend to produce children with strong fear of failure*' (Hassan, Enayatullah & Khalique, 1977) often suffer from fear of failure. As many traditional societies in Africa tends to bring children up in this way, it is difficult for adults, particularly women who are doubly suppressed, to shake off their training from childhood, and rise up with confidence to try something different (Tichagwa, 1998).

Another manifestation of the avoidance motives is Fear of Success, and this is also relevant for our own study. Rural women in particular may fear success because it may draw negative criticism from custodians of traditional values such as the belief of female subordination. Overcoming these de-motivating aspects may be the key to promoting progressive behaviour.

### **3.8. SOCIAL EPIDEMIOLOGY**

Psychoanalysts examine individual psyche and make generalisations on the nature of humans. In sociology Durkheim (1895) sees society as not merely as the sum of its individuals, but as a 'social fact', an organism with a characteristic *modus operandi* of its own.

*... the group thinks, feels and acts entirely differently from the way its members would if they were isolated. If therefore we begin by studying these members separately we will understand nothing about what is taking place in the group (Durkheim, 1895).*

He demonstrated that even suicide, considered the most personal of actions, can be correlated with collective features of society. He showed that the national rate of suicide is contingent on the levels of social cohesion within the society. A cohesive society is marked by:

*an abundance of mutual moral support which instead of throwing the individual on his own resources, leads him to share in the collective energy and supports his own when exhausted (Durkheim (1897, 1997).*

Following this functionalist perspective, James Coleman, developed the concept of Social Capital, and identified a variety of forms: levels of trust within a social structure, appropriate social organisation, norms and sanctions and information channels. These group dynamics all share one distinctive feature – they are a *social* good, a feature of the *collective*, as opposed to a private capital, which is personally owned and cannot be easily accessed by another. Social capital is distinct from ‘social networks’, which are measured at the individual level in terms of the strength and number of linkages to friends and family. Social networks are therefore proxy indicators of social capital, arising as a *by-product* and not as a result of conscious investment on the part of the member. Kawachi and Berkman (2000) define social cohesion as *‘the extent of connectedness and solidarity among groups in society.’*

This will affect the level of Social Capital, defined as *those features of social structures – such as levels of interpersonal trust and norms of reciprocity and mutual aid – which act as resources for individuals and facilitate collective action’* (Coleman 1990, Putnam 1993a). They consider that there are three main ways that social capital could influence individual health at the neighbourhood level: *‘by influencing health related behaviours, by influencing access to services and amenities and by affecting psychosocial processes.’*

Coleman illustrates this concept with the case of a residents association in an urban housing project, which initially formed for the purpose of maintenance of the property but remained in existence after the problems were solved because it enabled the quality of life to be improved in many other ways. The main feature of social capital is that it is external to the individual, a feature of the collective rather than the private. Social Capital, although not as tangible as financial capital, is a resource that can be used in the same way. Unlike money which is a private good, social capital is a public good, which can be freely resourced by any members of the community whether they have helped to develop it or not. For example, only *some* parents give their time to develop a parent teachers’ association to assist a school, but *all* pupils will benefit whether their parents have contributed or not (Coleman 1988).

When Social Capital is absent, in times of social disintegration (war, displacement or anomie), the levels of personal tension can be expected to create psycho-somatic problems which affect levels of crime, youth behaviour, political involvement, and educational attainment. In addition, it is now being shown that levels of social capital also impact on public health (Kawachi et al., 1996). Putnam (1993b;1995) demonstrated that lower levels of trust were associated with higher coronary heart disease, malignant neoplasms, cerebrovascular disease, unintentional injury and infant mortality. Kawachi et al., (1994, 1996, 1999a) carried out a series of multilevel study of the relationship between social capital and self-rated health associated with heart disease.

Social Epidemiology, is a relatively new specialisation with Epidemiology which is less concerned with measuring health outcomes, as does conventional epidemiology and is focused on population health which is a specialisation of sociology. It is a field *'defined by our concern for describing and intervening on social conditions that either promote or harm health.'* By identifying the root cause of social malaise instead of individual causes for sickness, Social Epidemiology can highlight social solutions, which can be more readily addressed in development, thus addressing the determinants of health (WHO, 1986). This research and development of the Community Health Club Model sits comfortably within this discipline.

### **3.9. SUSTAINABLE LIVELIHOODS**

Whilst the field of Social Epidemiology is providing studies that focus on Social Capital, the concept has been further widened across all development sectors in the Sustainable Livelihoods Approach (DFID, 2000). Apart from the usual concept of financial capital and Social Capital (as outlined above) there are in addition three other assets which are also a form of capital: Human, Natural, and Physical Capital. Rather than focusing on people's problems the Sustainable Livelihoods Approach seeks to build on people's resources (the five assets) and their own strengths to alleviate poverty. Thus good health becomes one of the enabling factors (a human asset), but health is not seen in isolation but is within a broader scope of development. The entry point for Sustainable Livelihoods can come from any sector but with this horizontal approach (See Section 2.3.2) it is a reiterative diagnosis and design process that progressively expands across all sectors, including Education, Agriculture, Marketing and Health. Thus the determinants of health, the most basic of which is poverty, are being addressed. All the guiding principles that define the Sustainable Livelihoods Approach: people centred, participatory, inter-sectoral, holistic development and an emphasis on long term sustainability are also key concerns in the Community Health Club Model.

### **3.10. SUMMARY**

The study hopes to understand whether Community Health Clubs have meet the needs of the target population in terms of Basic Needs, Safety and Esteem Needs and a sense of Belongingness (Maslow, 1967). It will also examine whether Self Actualisation can be realised in a peasant context as a striving to provide high standards of family care. Understanding the process that produces a motivation is vital in disaggregating human motivation. If natural incentives are predictable, we should be able to manipulate the environment to provide the sign stimuli that create affective arousal which would lead to the consummatory act that we hope to engender. The motive to change behaviour could be stimulated by the same triggers as the Variation Motive. McClelland's (1987,1965) concept of the Need to Achieve, the Need

for Power and the Need for Affiliation are basic drives that may be affecting the attraction and adherence to Community Health Clubs. Conversely, Fear of Power and Fear of Failure have undoubtedly been some of the many reasons why women, in particular, have failed to take control of their lives. In addition the attraction of the health clubs may be explained in part by variety as an incentive. The development of Self Efficacy as identified by Bandura (1977), is a key aspect of the method used within health promotion training leading to a functional community with the confidence to manage its own health. Social capital is a concept that can be applied to the levels of trust which are developed with community health clubs and the model can be positioned under the umbrella of a sustainable livelihoods approach, as it shares all the key assumptions that make both holistic, horizontal and sustainable means of alleviating poverty and improving quality of life.

## Chapter 4: Background to Zimbabwe

### Summary:

This chapter turns to the geographical area of the intervention, namely Zimbabwe (formally Rhodesia) in Central Africa.

**Section 4.1.** provides basic information on the **demography**: the population, ethnic groups, language and religion of Zimbabwe.

**Section 4.2.** describes the elements in **Zimbabwean culture** relating to gender issues (Auret, 1990) that have informed the Community Health Club approach.

**Section 4.3.** looks briefly at the cultural value of sociability and rapport

**Section 4.4.** provides a socio-political context for the achievements of the Community Health Club intervention.

**Section 4.5.** identifies how **Determinants of Health**, food security, safe water, sanitation, and literacy levels have affecting levels of health in Zimbabwe.

**Section 4.6.** provides a **disease profile of Zimbabwe** and discusses the top six causes of hospital admission for children under five at National level (Unicef, 1999; NAC 2000).

**Section 4.7.** shows how two early **philanthropic efforts** may have paved the way for the rapid spread of women's groups after Independence.

**Section 4.8.** highlights a study on lessons learnt from health education in Zimbabwe and provides background to the regional PHAST initiative which introduced participatory methodology into Zimbabwe in 1994.

## 4.1. DEMOGRAPHY OF ZIMBABWE

### 4.1.1. Population

In 1999 there were estimated to be 12.5 million Zimbabweans (Unicef 1999a). The population growth rate fell from 3.1% in the 1980's to 2.0% in 2001 (WHO, 2002). This may be attributed partly to the success of the Government campaign to control fertility (Tichagwa, 1998), but also to the devastating impact of HIV/AIDS with over 24.6% of people infected (WHO/Unicef, 2004). Mortality rates have risen sharply, and the population is now estimated at 11.6 million (UNDP, 2005) with a fertility rate of 4.7 (WHO, 2002) and life expectancy of 33 yrs (Unicef 2003) (See Table 9, below).

**Table 7: Development indicators of Zimbabwe**

Development Indicators:		Date	Source
<b>POPULATION</b>			
Total Population	11.6m	2001	UNDP (2005)
Dependency Ratio (per 100)	95	2001	WHO (2002)
% population aged 60+	4.7	2001	WHO (2002)
Annual Growth Rate	2.0	1991-2001	WHO (2002)
Urban Population % of total	26%	2001	Abacci, (2001)
Annual Growth Rate:	6.4%	1994	UNDP, 1997
<b>HEALTH</b>			
Life expectancy	33	2003	Unicef (2003)
Annual births /1,000	409	2003	Unicef, (2003)
Annual under 5 deaths/1000	52	2003	Unicef (2003)
Total fertility rate:	4.7	2001	WHO (2002)
Infant <1yr) mortality rate per 1,000	78	2002	Unicef, (2003)
Maternal mortality rate per 10,000:	200-400	2000	Abacci (2001)
Population HIV positive	24.6%	2004	Unicef, (2004)
Population with access to health services	77%	1997	UNDP, (1998)
Population with access to safe water: Rural	74%	2002	WHO/Unicef (2004)
Urban	100%	2002	WHO/Unicef (2004)
Population with access to safe sanitation:	57%	2002	WHO/Unicef (2004)
% of under 5's malnourished	21%	2003	AFRODAD, (2003)
Government spending on Health %	3.1 GDP	1998	AFRODAD, (2003)
<b>EDUCATION</b>			
Adult literacy rate women	75%	1998	Unicef, (1999)
Adult literacy rate men	86%	1998	Unicef, (1999)
Enrolment at primary school: girls & boys	85%	1998	Unicef, (1999)
Government spending on education	7.1 GNP	2003	AFRODAD, (2003)
<b>ECONOMY</b>			
Human Development Ranking	145	2003	UNDP, (2003)
Gross National Product (GNP) US\$	5.4 bn	1994	UNDP, (1994)
Gross domestic product per capita (PPP.US\$)	2,280	2001	UNDP, (2003)
% pop living on <US\$1 per day	36	2000	AFRODAD, (2003)
Annual Growth rate	0.26	2002	Abacci, (2004)
Annual rate of inflation	320%	2003	UNDP, (2005)
Foreign Debt in US\$	4.37 bn	2000	AFRODAD, (2003)
Spending on Debt service	16.6GNP	2000	AFRODAD, (2003)
Unofficial Exchange Rate Z\$ : US\$	45,000	6/2005	Zim New (30.7.2005)
Official Exchange Rate Z\$: US\$	17,000	12/2004	" " " "

#### **4.1.2. Language**

The language spoken by 71% of Zimbabweans is Shona, the Ndebele comprise 16% of the population whilst only 11% of the population belong to the minority Venda, and Shangaan in the South and to the Tonga. Whites of European descent and Asians comprise less than 1% each of the total population. English is the official language and is taught at primary and secondary school. It is estimated that over 85% of the population can read and write English (Unicef, 1999a; Auret, 1990).

#### **4.1.3. Ethnic Groups**

The Tonga are the only original inhabitants of the country, descended from hunter-gatherers, a sedentary remnant living along the Zambezi River in the north. The Mashona, the majority ethnic group, tend to be settled mainly in the provinces of Manicaland, Mashonaland Central, Mashonaland East and South, and Masvingo Province. The Ndebele who arrived in the 19<sup>th</sup> century are a migratory offshoot of the Zulu nation from South Africa. They took over land from the Shona and settled largely in the south-west of the country in Matabeleland North and South. Midlands Province is a mixture of both ethnic groups. The Shona and Ndebele people now share many common practices in their cultural values, norms and their religion. European settlers arrived from 1890 onwards, colonising the local population and taking control of the land until Independence in 1980 (See Section 4.2.).

#### **4.1.4. Religion**

Conventional denominational Christianity is practised by 25% of the population with a belief in *Mwari*, the divine creator now cast in a Christian mould. There is also a 50% following of the charismatic Apostolic churches that fuse ancestral belief within a Christian biblical context (Unicef, 1999a). Christian values are a part of life in most homes, and prayers are normal before all meals and at public meetings (Gelfand, 1984). 24% still adhere purely to traditional ancestral spiritualism, and less than 1% of the people are Muslim or hold other beliefs (Abacci, 2000).

### **4.2. GENDER AND CULTURE IN ZIMBABWE**

In this section we consider a few of the cultural gender-related practices that may have impacted on the intervention and sources include Auret (1990), Tichagwa (1998) and Gelfand (1984, 1977), Kriel, (1971) and Weinrech, (1982). Women make up over 80% of most health clubs and so it is particularly important that their outlook and daily problems are well understood. how the girl child is raised, how she has been socialised



to behave in her own family will condition her responses to the outside world, and her ability to adapt. Her rights within marriage, the traits considered appropriate for a good wife, and the implications should she be divorced or widowed all will impact on her ability to be an active member of the Community Health Club. These insights into local practices should provide background as to how Community Health Clubs can build on existing cultural norms or assist the members to change their practices without fear of failure (See Section, 2.7) or jealousy. As many women are self-deprecating and shy in public, this may mean developing self-efficacy, self-confidence and social networks between significant others, which may cushion the negative effects of overt individual change.

#### 4.2.1. Child rearing practices

In the rural areas of Zimbabwe, girls are still brought up to show a deferential attitude to men; they are essentially servile in their dealings with all males, including sons (Gelfand, 1964). There is considerable gender imbalance within the family, and sons will be favoured regarding education and other opportunities as girls' training is considered to be lost to the family when they marry out (Tichagwa, 1998). However, a girl who is well educated can fetch higher *roora / lobolo*<sup>1</sup>. As a *chipanda*<sup>2</sup> her lobolo, would pay for her brother's marriage and this would earn her a special relationship with his offspring. Girls are trained from an early age in domestic duties and may be kept from school to perform them if necessary. The game of 'housey-housey' or '*Mahumbe*' is traditionally set up by the elders for girls and boys to teach them correct marriage behaviour in Shona society (Burke, 1996). Girls are kept under control and close to home in the school holidays, whilst boys may roam freely with their herds.

Ndebele girls and women traditionally crouch or sit when talking to a man to show respect, and kneel when offering beer or food. If husband and wife are both seated she should sit behind him. Although she can ask politely, a woman seldom dictates to her husband (Hughes & Van Velsen, 1955). Over the past twenty years since Independence in 1980, these traditional roles and responsibilities are being increasingly abandoned as practicalities intervene and levels of education differ between generations.

The decrease in the role of the *vatete*<sup>3</sup> as a wise advisor on personal problems has been unfortunate, as this was one of the most positive aspects of Shona culture to be abandoned (Auret, 1990). As families become urban and nuclear, the inaccessibility of the *vatete* (who may often be in the rural homeland), means that the knowledge that she had traditionally given is now often lacking, and many children grow up ignorant in

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<sup>1</sup> Bridewealth, paid by the future husband to his future in-laws in order to seal a marriage agreement

<sup>2</sup> A sister linked by provision of bridewealth .

<sup>3</sup> A favourite 'auntie, designated to be a personal advisor, especially on sexual matters and marriage

sexual matters, as parents still avoid this duty (Tichagwa, 1998). Recently there has been a call for sex education in secondary schools to replace this information gap created by a shifting culture.

#### **4.2.2. Division of roles within marriage**

*Reproduction and production were intimately entwined and embodied in the roles of women. Through marriage a woman ensured the continuity of both her own and her husband's group, and through her involvement in agriculture she provided the food to sustain that life. The responsibility for life was thus centred on the woman. Fulfilment of these roles was the source of a woman's status and influence. (Auret, 1990. p.98)*

In both Shona and Ndebele culture, women work the fields, whilst men are concerned with livestock and there is little role-confusion as each is an important aspect of the whole. Men take care of the public sphere whilst the women accept domesticity. Despite her lack of influence outside the family, a woman in traditional society had considerable authority and status as a mother and a provider. A woman's position in her husband's family rose with the success of her motherhood: her ability to provide descendants, particularly males. Once past menopause she was considered wise and above reproach, and allowed to brew traditional beer and offer libations to the ancestral spirits. As a grandmother her authority was unquestionable, and she held a respectable place as the custodian of tradition (Auret, 1990). Transition for women with their lack of marketable skills and inexperience in the public realm in a modernising society based on formal employment and wage labour, is more challenging than for men as explained below:

*Women are not merely an aspect of society: they are its very core. They have been the most affected by the society's transformation from small scale to large scale society; from a society characterised by intense personal relations to one based on impersonal relations: from a society where the desire for harmonious relations maintained a balance between the formal traditional authority of the male and the informal power and influence of the women, to a society where relationships were formalised and codified and were therefore no longer flexible. (Auret, 1990. p.97)*

This transition stage is when the Community Health Clubs can provide a safety net for women in the process of change. This process is described in the Cyclical-Linear Model (See Section 5.1.2)

### 4.2.3. Marriage

The liberation of women within the last twenty years has meant that many of the traditional practices that protected and controlled women have been abandoned. Traditionally, in a customary marriage, bridewealth was paid by the groom to the parents of his future wife. This ensured that not only the husband, but also his kin, gained control over the woman's social and biological productive and reproductive capacities (Auret, 1990). A new wife coming into the husband's family is treated by the mother-in-law as a servant for the first few months, until the girl has learnt to respect her new family. Therefore, if the Community Health Club can provide an opportunity for a daughter-in-law to enhance her respect from her in-laws her life will be improved, as she will feel accepted and admired (See Annex 13.12). The wife and her children in fact belong to the husband's family, and she has few rights. If a wife is unhappy and tries to return to her own family they may refuse to have her back if they cannot repay the *lobolo*. Divorce is therefore difficult and marriage upheld by social pressure. A husband's conjugal rights over his wife means she dares not refuse to have sex even if he is known to be HIV positive.

However, particularly in urban areas, young people are increasingly choosing their own partners, with or without approval of their parents, who are surprised if they receive the customary bridewealth for their daughters. Contrary to a western perception of *lobolo* being a way of buying a wife, the traditionalist sees the practice as providing the wife insurance and guarantee of protection. If a woman has been married without the traditional payment of *lobolo*, she can be abandoned equally easily, and many fathers now have an irresponsible attitude to their offspring, seldom offering any financial assistance for their upbringing. On the other hand, a convenient misuse of the old ways is the practice of older men paying cheap *lobolo* for uneducated young wives in order to have unpaid labour for their fields (Auret, 1990, Tichagwa, 1998).

### 4.2.4. Admirable traits for a wife

Girls are socialised to be quiet wives: a survey of men and women (Weinrich, 1982) found that the qualities that are of most importance were:

- Politeness,
- Respectful behaviour,
- Faithfulness to husband and trustworthiness,
- Youth and beauty,
- Kindness,
- Cheerfulness,

- Maturity and responsibility.

Personal qualities were stressed more than skills, although good cooking and an ability to handle money well was mentioned. For men it was important that the woman was 'hardworking', but for women it was enough that the husband is 'supportive'. The Shona are more concerned than the Ndebele with marrying into a good family with its ascribed characteristics. However, in both ethnic groups, a woman is considered a minor all her life, and as a mother must defer to her grown sons (Weinrich, 1982). As an ideal wife is expected to be silent and respectful and leave all decisions to her husband, she is disempowered in the sense that her own self image is one of a facilitator for others rather than important in her own right. It is relevant that no mention was made of intelligence or ingenuity, as this may clash with male domination. She may have a fear of failure (See Section 3.7.) as she has little experience of achievement, or conversely she may be afraid to succeed and attract jealousy.

Despite the fact that most rural women under 40 years old, are as educated as the male members of their family, they still tend to affect a subservient role in public. Their culture demands them to be deferential towards men and therefore they seldom assert themselves easily in mixed company. One of the strengths of the Community Health Clubs seems to be that it can build self-efficacy within women where previously they had many characteristics developed through their culture of low dominance (See 3.6.3, Table 6).

#### **4.2.5. Divorce and widowhood**

In Zimbabwe, customary marriages can be registered under the Customary Marriages Act, and no parental consent is needed for persons over eighteen years. In the case of divorce, all immovable items belong to the husband, whilst movables such as furniture and kitchen utensils can be taken by the wife, who must not only leave the house but also the children to the husband's kin. Civil marriages are monogamous and can only be dissolved by death or divorce (Tichagwa, 1998). In the case of death of the husband, the wife may be remarried to one of his brothers, whilst if the wife dies one of the wife's sisters may be sent to replace the deceased to care for the children. Thus marriage is not an individual act but the combining of two extended families.

Being widowed is one of the most difficult situations for a woman, as traditionally women seldom live alone. If the widow is still capable of bearing children she is expected to be inherited by a younger brother of her deceased husband who will look after her children until they marry. If she is not taken over as a levirate wife, she is placed under the authority of her oldest son. Upon his marriage the eldest son takes over the affairs of his father's family and the cattle come to him. At this point his

mother's second husband is no longer responsible for her affairs and those of her children borne of her former husband. The stepfather is *told* of any proposed marriage of one of the children, whereas the eldest son has to *approve* the marriage and provide the bridewealth for his brothers. He retrieves bridewealth if a sister marries, keeping it in trust for one of his brothers (Gelfand, 1971).

#### **4.3. CULTURAL VALUES OF SOCIABILITY AND GOOD RAPPORT**

The Community Health Club Model (See Section 5.4) rests on an understanding that the appeal will be particularly to those high in the Need for Affiliation (See Section 3.6.2) and the related need for consensus.

The Shona and Ndebele people are alike in that they both set a high value on sociability; 'good rapport' is the basis on which friendships are established, and many proverbs illustrate the importance of friendship and common unity (Kriel, 1971). Conversation is characterised by good 'listener participation' with many verbal prompts to encourage the speaker, particularly in large crowds where unanimous exclamations rise from the whole crowd to puncture speeches. *'The Shona are great repeaters'* (Kriel, 1971), and the use of slogans in a group, and at rallies, are a popular method of bonding together in a united front. Dancing and singing is the glue of all social occasions and an opportunity to sing together promotes palpable joy and conviviality. Two of the main forms of communal enjoyment are eating together and listening to stories, which, as Kriel explains, fulfils a fundamental need:

*...enjoyment in company is a select form of rapport. It strengthens the feeling of group solidarity, which to the African is a deeply satisfying form of bliss, resulting in an unwillingness, which may border on inability, to act individually (Kriel, 1971).*

#### **4.4. SOCIO-POLITICAL BACKGROUND**

In 1965 the European settlers in Rhodesia, made a Unilateral Declaration of Independence and took power from British colonial control. This resulted in a prolonged armed liberation struggle by two main factions of black nationalists until the country became independent Zimbabwe in 1980. The Shona-supported party ZANU (Zimbabwe African Nationalist Union) won the first elections in 1980, with Robert Mugabe as Prime Minister, and later President. Ethnic dissension marred the first four years of independence and an estimated 20,000 Ndebele were massacred and the unrest only subdued when the ZAPU leader agreed to join a one party state under the ZANU- PF (Patriotic Front).

#### **4.4.1. The growth of modern Zimbabwe: 1980 –1990**

Independent Zimbabwe with a good infrastructure and reformist measures appeared to prosper economically under majority black rule for the first 10 years. The Marxist/socialist economy was characterised by government subsidies, price controls and a restrictive import policy. Many new Health Care Programmes had been successfully put into effect. The number of Health Centres and Clinics had increased from 247 to 1,062, and a study indicated that 71% of a sample had a health facility within 8 km of home (Auret, 1990). By 1984, a sample showed that 67% of children had been born with health personnel supervision, which was an 18% increase on the situation at Independence. Three years later it was estimated that 75% of all children had been fully immunised, as opposed to 25% in 1980.

The task after Independence was to build a single system of law that incorporated the aspects of customary law with no gender bias but which also reflected values important to the nation (May, 1979,1983). Women now have equal legal rights (The Legal Age of Majority Act, 1982; Labour Relations Act; Customary Law and Primary Courts Act, 1981; Matrimonial Causes Act; Sex Disqualification Act); they feature in all levels of society in Zimbabwe, and are especially prominent in the NGO sector (Auret, 1990).

#### **4.4.2. The Economy**

In 1992, the Economic Structural Adjustment Programme (ESAP) converted the country into free market economy (Unicef, 1994) whilst a devastating drought lasting for two years crippled the agricultural sector. Both these factors were held responsible for the decline in the economy, which started at this time (Unicef, 1994). Whilst economic deregulation and free market forces promoted international trade, the social effects of cost recovery in the health and education sectors impacted negatively on the poorest sections of the population (Unicef, 1994).

#### **4.4.3. Decreasing Health**

By 1996 the health budget had dropped from 3% to 2.1% of the GDP, its lowest per capita since 1980 (UNDP, 1996). Whilst health care had been free for those in the lowest income bracket immediately after Independence, once ESAP came into effect in 1992, most local authorities began to charge fees to maintain even basic services. Since 2000, the referral system has largely broken down due to lack of funding, fuel and transport, as well as the shortage of medical staff (Unicef, 2005). The maternal mortality rate is now between 250 and 400 per 100,000 (Abacci, 2000), but for each

death there are at least 20 maternal morbidities (Tichagwa, 1998). Life expectancy rose from 45 years in 1965 to 73 years in 1992 (Unicef, 1994), but as HIV/AIDS infection (See Section 4.4.7.) reached as high as 33% (NACP, 1998) this dropped drastically to 33 years (Unicef 2003). With the contraction of public spending, the social services are only nominally in place and the health and education of the population has suffered (UNDP, 2005). With the contraction of public spending, the social services are only nominally in place and the health and education of the population has suffered (UNDP, 2005).

#### **4.4.4. Decline: 2000 – 2005**

In 2000, a popular referendum rejected proposed changes to the constitution to entrench the President for life. Between 2000 and 2005, Zimbabwe was characterised by overt human rights abuses against those who opposed the state (Meldrum, 2005). The compulsory requisition by the Government without compensation and the unlawful resettlement of war veterans on more than 4,000 commercial farms, effectively destroyed within two years the large-scale agricultural production on which the economy depended. This resulted in a general exodus of the commercial sector and unemployment rose to over 70% (Meldrum, 2005). All major donors withdrew funding in 2001, undermining most development programmes, and many NGOs were abandoned.<sup>4</sup>

By 2005, Zimbabwe had become one of the poorest countries in Africa, ranked 145 on the UNDP Human Poverty Index Scale. The GDP had shrunk to 40% of what it had been in 1999, and in 2003 inflation rose to 320% (UNDP, 2005). The value of the Zimbabwe dollar fell from Z\$ 50 to Z\$ 35,000 to the pound sterling between 2001 and 2005 (UNDP, 2004). Chronic shortages of bank notes, fuel and staple foods have further demoralised the remaining population.

The parliamentary elections of 2001 and 2005, and the Presidential Election of 2002 further entrenched the existing regime in power, and Zimbabwe continued to be defiant in its isolation and defaulted on debt service obligations. In October 2000, the World Bank refused to continue loans and all major donors from the international community withdrew external funding, resulting in the collapse of many NGOs. In 2001, Zimbabwean debt amounted to US\$4.5 billion, six times that at Independence in 1980.

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<sup>4</sup> The NGO, Zimbabwe A.H.E.AD. was downsized to three field staff in Makoni, both major donors having simultaneously withdrawn in February 2001, and has had minimal funding for the past four years.

The Commonwealth suspended Zimbabwe in 2001, and Government ministries have been left without crucial external financial backing on which they had come to rely. In August 2005, the International Monetary Fund threatened to expel Zimbabwe. The Water and Sanitation Sector Annual Report for the year 2000 states:

*Programme implementation in the year 2000 was undertaken under a very difficult environment characterised by high input costs and shortages, unfavourable socio-political environment, cholera outbreaks, heavy rains, weak national management structures and dwindling financial resources, added demands from national events such as the constitutional referendum, the Parliamentary Elections and the land reform programme. These were compounded by Public Sector reforms that negatively impacted on manpower levels. (NAC, 2000).*

The Community Health Club intervention described in this thesis took place between 1999 and 2001.

#### **4.5. THE DETERMINANTS OF HEALTH**

The determinants of health are affected by both the domestic and the public domain. For family health to improve both aspects must be addressed (Cairncross, 1996) as structural elements at the macro level have to be in place to allow the domestic domain to thrive. However, in Zimbabwe prerequisites such as peace, shelter, education, food, income, a stable eco-system, sustainable resources, social justice and equity (Ottawa Charter, 1986) have all been under threat. The Community Health Club intervention described in this thesis addresses mainly the domestic domain. However in the context of a disabling socio-political environment such as described above, this intervention may make little impact. The question is whether Community Health Clubs can sustain any health improvement in the face of failing health services, high unemployment, insecurity and food shortages that have disabled normally resourceful subsistence farmers. The section below focuses on food security, access to safe water and sanitation, as well as levels of education and literacy, all of which have been shown to determine health status (Sen 1999; Feachem 1984; Esrey 1990; Caldwell, 1986, Cleland and Van Ginneken, 1989).

##### **4.5.1. Food Security**

*A person is food secure when they have the sustainable ability to obtain adequate food in a manner that is dignified and socially and environmentally acceptable (Unicef, 1999).*



Zimbabwe in the past had normally been food secure, with surplus to export to neighbouring countries (Auret, 1990). Today 70% of the people of Zimbabwe are still subsistence farmers relying on the annual rains to produce maize for their family; for the past five years the rains have been unfavourable. In addition population increase, climate change and rapid desertification in the region have contributed to the scarcity of arable land, and this was further exacerbated by the unequal distribution of land in favour of large scale commercial farms on the most productive land. The poorly planned redistribution of the majority of commercial farms resulted in the national maize production, the staple food, dropping by 31% in 2000. (Woelk, 2001)

Although poor rains in the year 2000 provoked a drought throughout the region, neighbouring countries managed to avert famine with good management of resources. The food shortage was only chronic in Zimbabwe where after consecutive years of drought and mismanagement there are now, in 2005, five million people reliant on external food aid. It is estimated that over 60% of Zimbabweans are living below the poverty line (Abacci, 2000) with few resources

left as a safety net. Whilst droughts (lack of rain) cannot be controlled, true famines (starvation) can be averted with good governance (Sen,1999). Widespread hunger has been a feature of the last few years.

Women's nutritional status is a measure of their general health. One proxy indicator for this is the birth weight of their children. A woman's health can be compromised by the increased nutritional demands of frequent pregnancies, and the fact that mothers in times of food shortage tend to feed their families better than themselves. Maternal morbidity is manifested by general bodily fatigue and anaemia, as well as poor resistance to infections (Tichagwa, 1998). Lack of access to arable land, limited skills and the premature death of the breadwinner are also causes of food shortage. It is a common survival strategy for women to trade sex for food, and this further increases their risk of infection of HIV/AIDS (Auret, 1990). With the economic depression, unemployment and the chronic food shortages nationally within the past four years (UNDP, 2005) it was estimated that 21% of children were malnourished by 2003 (AFRODAD, 2003).

This situation has been highlighted in order to put the present intervention into context. Health promotion to prevent common infectious diseases such as diarrhoea is almost irrelevant if there is general food shortage and people are preoccupied with survival. As the Community Health Clubs seek to address the determinants of health, the importance of AIDS and a balanced diet, and adequate nutrition is one of the basic issues to address.

#### 4.5.2. Safe Water

In 1999, the officially declared national average of water coverage was high at 99.75% (NAC, 2000), but there was a wide disparity between provinces (See Table 10). In Manicaland Province, (where Makoni District is situated) all households had access to at least one source of water, whilst 6% had more than one source available. Matebeland North, where Tsolotsho is situated, had 97% coverage, the fifth highest out of eight provinces.

**Table 8.** Summary of household coverage of water and sanitation in the eight Provinces of Zimbabwe by December, 1999 (NAC, 2000).

Provinces of Zimbabwe	# h/holds per Province	# Protected Water Sources	# B/holes Down	# Repaired B/holes	Mean Downtime in days	# Blair latrine	% h/holds + safe water	% h/holds + Blair Latrine
<b>Manicaland*</b>	278,385	6,776	330	18	147	70,023	106	25
<b>Mashonaland. C</b>	207,020	7,476	0	-	-	38,642	66	19
<b>Mashonaland. E</b>	205,689	13,613	1,711	889	132	53,404	150	26
<b>Mashonaland. W</b>	210,800	8,111	1,264	1,169	135	54,357	89	26
<b>Matebeland North*</b>	173,214	4,325	0	0	58	18,511	97	11
<b>Matebele South</b>	196,469	4,722	400	704	162	32,051	133	23
<b>Midlands</b>	251,061	9,755	1,473	796	308	44,323	113	18
<b>Total</b>	1,689,431	61,705	5,745	4,294	133	361,498	99.75%	19.80%

- Provinces where the intervention took place: Tsholotsho in Mat. North and Makoni in Manicaland.

In 1999, the average downtime of handpumps out of order, nationally was estimated at 133 days. The same year the District Development Fund maintenance teams were disbanded to economise and most of the semi-voluntary handpump caretakers were laid off by 2000. The water point committees, which had initially been effective at village level in the mid 90's, are now hardly operating and it is estimated that over 65% of hand pumps are out of order with little repair (ZimAHEAD, 2005). In the past five years maintenance of boreholes has almost stopped and the community are without support to repair their boreholes. As clean, abundant water supply is one of the main determinants of health, programmes that enable women in particular to maintain their boreholes are needed. By 2002 it was estimated that water coverage in the communal areas had dropped to 74% coverage to within 5 km (WHO/Unicef, 2002).

#### 4.5.3. Sanitation

The Ministry of Health in Zimbabwe uses the term 'latrine coverage' to indicate not just any traditional pit but only the 'Blair Latrine', an expensive Ventilated and Improved Latrine (VIP) model that is the recognised standard upheld by the Ministry of Health (See photo. Fig. 12. Section 6.5.). Blair or VIP Latrines have a lined pit, cement slab, brick walls, vent-pipe and permanent roof. This is a considerably higher standard than is used in most other countries in Africa where 'sanitation coverage' refers to all types

of pit latrines, even if they are unlined, without a vent-pipe, slab or permanent superstructure (WHO/Unicef, 2000). According to these records, Manicaland has 25% sanitation coverage, whilst Matabeleland North has only 11%. The seemingly low level of latrine coverage of 20%, reported by the Ministry of Health does not take into account the 'traditional pit latrines' that are in fact common in many rural areas, but are not reported by Ministry of Health, as they are not of the recognised standard. According to WHO/Unicef (2004) sanitation coverage in 2002 was 57%, but this may include all types of latrine, not only VIP/Blair model.

The household subsidy is a controversial issue, which has a bearing on the levels of safe sanitation. In Zimbabwe, a three-bag subsidy of cement has been offered in sanitation programmes for families to build a VIP latrine and this was also offered in the Makoni intervention. Although it did initially help to raise the sanitation coverage from 26% in 1980, to 32% in 1997 (NAC, 2000) this subsidy was not sustainable in the long term, particularly when funding agencies withdrew, although despite lack of external support in recent years, there have been some isolated reports of CHC members building latrines (See Annex 13.2.6). This lends strength to the strategy of '*total sanitation of village by catalysed participation and self mobilization*' without any attempt to offer subsidy (Kar, 2003).

It has been estimated that to keep pace with population growth it would be necessary to construct 80,000 latrines per annum, (Unicef, 1999). In reality, even at the height of latrine building in 1994/5, only 18,992 were built in the whole country in one year. By 1997/8 the number of latrines built per year had dropped to 8,083. This decrease was officially attributed to shortage of cement, and lack of Environmental Health Technicians in each ward (NAC, 2000).

#### **4.5.4. Education and Literacy Levels**

In the older generation (women over 45 years and of men over 60) 50% are illiterate indicating how few educational opportunities there were in colonial era. By 1990, of those who were still semi literate in the country, 65% were women (Auret, 1990). Twenty years after Independence literacy rose substantially to the present rate of 86% for males and 75% for females (Unicef, 1999). The subsequent high demand for adult literacy reflected an 'intellectual starvation' particularly among women, and the success of the adult literacy drive after Independence helped raise functional literacy.

The prior lack of school facilities at Independence created an initial explosion of enrolment in over-age children and adults. Many children's education had been disrupted by insecurity in the rural areas due to the liberation struggle. Zimbabwe could

claim impressive achievements in education in the ten years immediately after Independence, but the pressures of ESAP and successive droughts (See Section 4.4.2.) combined to undermine gains made in the school system in the 1980's (Woelk, 2001). At present 85% of children in Zimbabwe attend primary school, with more girls than boys until the fifth year when the ratio increasingly favours boys (Unicef, 1999). Although 93% of pupils reach Grade 7, (the final year in primary school) the standard of education is still poor despite massive investment in facilities and training teachers, Only 5% of children who enrol in primary school are likely to reach the fourth year of secondary school and sit 'O' level examinations. In the early 90's the drop-out rate of girls was 7% higher than for boys. Reasons given in a survey (Unicef, 1997) cite the cost as a main factor, with 40% of children kept from school because of non-tuition costs (building levy, sport fees, textbooks and uniforms). The lack of schooling for girls is relevant for this study because much of the appeal of the Health Clubs seems to be that it provides an opportunity for learning. It is also important in that it has been found that child survival can be improved by up to 20% if a mother has four to six years of schooling (Cleland and Van Ginnegin, 1989). The fact that girl children are often forced to leave school early may have made the prospect of a certificate in home-craft from attending health education sessions all the more appealing.

#### 4.6. DISEASE PROFILE

The training in Community Health Clubs aims to provide information for members on the main diseases that are known to affect the population in Zimbabwe. As background to this study the following section presents the top causes of hospital admissions for under five year old children (Unicef, 1999b) (See Table 9, below).

**Table 9.** *Top causes of hospital admissions for children under five in Zimbabwe (Unicef, 1999)*

Illness or condition	# Cases in 1999	% of total new cases
<b>Acute Respiratory Infections (ARIs)</b>	3,794,150	25.5
<b>Malaria</b>	1,715,131	11.5
<b>Skin diseases</b>	1,195,435	8.0
<b>Ill-defined conditions</b>	1,050,862	7.1
<b>Diarrhoea</b>	553,475	3.7
<b>Eye diseases</b>	466,485	3.1
<b>Dental conditions</b>	299,754	2.0
<b>Bilharzia</b>	221,493	1.5
<b>Total</b>	9,296,785	62.4

The most common ailments treated in hospitals in 1998 were acute respiratory diseases, skin diseases, diarrhoea, eye diseases, dental problems and shistosomiasis (Unicef, 1999b). Ill defined conditions may refer to HIV/AIDS symptoms as Zimbabwe avoided labelling people living with AIDS explicitly. The training sessions in the Community Health Clubs focus on all these conditions.

Ministry of Health statistics for water-related diseases from the Annual Review of the National Action Committee for the Water and Sanitation Sector in Zimbabwe (2000) are also presented to show the disease trend in Zimbabwe between 1994 and 1999 (See Table 12). This provides statistical information for Zimbabwe as a whole, at National level, although it should be noted that the two sets of information vary somewhat.

**Table 10: Disease Trends in Zimbabwe: 1994-1999 (MoH/NAC 2000)**

	1994	1995	1996	1997	1998	1999	Total	Average p.a.
<b>Scabies (total population)</b>	250,493	235,860	301,249	232,648	128,738	86,118	<b>1,235,106</b>	205,851
<b>Scabies in under 5's</b>	89,854	116,169	108,547	85,768	48,057	32,560	<b>480,955</b>	80,159
<b>Eye Diseases (total pop)</b>	329,389	436,000	464,659	399,710	405,806	386,258	<b>2,421,822</b>	403,637
<b>Eye diseases (under 5's)</b>	78,308	115,942	130,593	96,710	99,875	92,262	<b>613,690</b>	102,281
<b>Bilharzia (total pop)</b>	194,575	248,800	217,966	201,582	190,746	129,782	<b>1,183,451</b>	197,241
<b>Bilharzia in under 5's</b>	6,891	7,249	6,750	5,345	5,301	3,9653,	<b>30,156</b>	5,026
<b>Diarrhoea (total pop)</b>	<b>541,591</b>	<b>586,138</b>	<b>553,477</b>	<b>530,727</b>	<b>530,419</b>	<b>497,916</b>	<b>2,709,541</b>	451,590
<b>Diarrhoea in under 5's</b>	<b>208,834</b>	<b>234,353</b>	<b>234,816</b>	<b>218,627</b>	<b>216,771</b>	<b>201,927</b>	<b>1,315,325</b>	219,220
Dysentery (total pop)	156,403	157,655	139,128	120,123	112,075	93,966	<b>779,350</b>	129,891
Dysentery in under 5's	35,53	36,148	31,592	27,551	25,257	20,783	<b>141,331</b>	23,555

#### 4.6.1. Acute Respiratory Infections

Two in every three children have an ARI episode every year with rural children more at risk than urban. The number of children dying is not known as many cases are not reported and many are victims of late treatment or an absence of antibiotics.

#### 4.6.2. Malaria

Whilst previously Malaria was endemic to the low lying areas of the country it has been spreading each year further afield and now is found all over Zimbabwe. In 1994, sixteen out of 57 districts reported a prevalence of more than 100 cases per 1000 people (Unicef, 1999). By 2005, 3 million people were estimated to have had to least one episode of malaria in the past year. Whilst Insecticide Treated Nets (ITN's) or even untreated bed nets are the most appropriate preventative measure, few amongst the rural population can afford them and when nets are donated they are often used only by

the adults. ITN coverage was only at 7% (Unicef, 2005). Children under five and pregnant women are particularly at risk if not treated upon onset of infection of Malaria. Deaths tend to result more from delayed referrals rather than resistance to, or lack of drugs (Unicef, 1999). Highest incidence occurs during the rains from November through to April with more cases reported in the wetter years (Unicef, 1999).

#### **4.6.3. Skin Disease**

Sufficient *quantities* of water, rather than the *quality* of water, has been found to have significant affect on the prevalence of skin diseases such as scabies and ringworm (Feachem,1984). In Zimbabwe, the third highest complaint reported by Ministry of Health is skin disease with 1,195,435 cases of which 8.0% were new cases in 1998. Scabies is an indicator of lack of adequate water for regular washing and lack of personal hygiene in the home. Statistics reported in the period between 1994 and 1999 show a general decline in scabies from 250,493 cases for all ages in 1994, to 86,118 in 1999.

#### **4.6.4. Eye Diseases**

Unlike other diseases at national level the incidence of reported eye diseases were gradually increasing during the period 1994 to 1999, from 329,389 up to 386,258 (NAC/MoH, 2000). Eye disease can be reduced by regular face washing, and in the case of trachoma, which is transmitted mainly by flies that breed in scattered human faeces, sanitation appears to be the key intervention to reduce fly populations (Emerson et al., 1999). To understand the trend in eye diseases more fully, the data needs to be disaggregated into types of eye disease, and areas most affected.

#### **4.6.5. Diarrhoea and dysentery**

In 1997, there were 553,475 cases throughout Zimbabwe (population 11.6 million) of diarrhoea, of which 3.7% were new cases. Diarrhoea incidence is linked to the seasonal rains starting in November and remaining elevated for about three months (Unicef, 1999b). It is strongly associated with poor living conditions, lack of safe water, open defecation, fly breeding and poor home hygiene (Feachem, 1984), all of which can be found to some degree particularly in the rural areas of Zimbabwe (Auret, 1990). It is also associated with malaria and HIV/AIDS. In Zimbabwe, diarrhoea trends show a slow decrease from a peak in 1995 of 270,000 to 222,710 reported cases in 1999 (NAC/MoH, 2000) (See Table 10).

#### **4.6.6. Bilharzia (Shistosomiasis)**

Shistosomiasis, the parasitic infestation of the liver or the colon by flukes, is known in Zimbabwe as bilharzia. Throughout Zimbabwe it is estimated by the Ministry of Health that bilharzia has been steadily decreasing from 217,966 cases in 1996 to 129,782 cases in 2001 (MoH/NAC, 2000).

#### **4.6.7. HIV/AIDS**

Zimbabwe has been slow to acknowledge the immensity of the HIV/AIDS pandemic. From 1980 to 1990, HIV/AIDS increased from 10% of the sexually active population in Zimbabwe, in mid 1980, to 25% in 1990; ten years of progress in health sector in the 1980s was almost completely reversed by the end of the 1990's (Unicef, 1990). By the year 2000, the rate of infection had risen to 33% of the population, and one in every three children born at that time were not likely to reach their 30<sup>th</sup> birthday. In 2004, the estimated HIV infection rate was thought to have dropped to 24.6 percent with about 1.8 million people currently living with the disease (Unicef, 1999). This still gives Zimbabwe one of the highest AIDS prevalence rates in the world (Unicef, 2005). By the year 2000, there were an estimated 600,000 orphans in the country, and by 2004 there were 800,000 (NACP, 1998).

Women are at more risk of infection than men and tend to contract HIV earlier due to marriage and sex at a young age. Often this is with older men who often seek virgins in the belief that this will protect them from infection. Sexual abuse, including incest is a major concern (Tichagwa, 1998). Those with migrant husbands working in town are at high risk from 'second wives' in the town. Resistance by opinion leaders such as village elders and church leaders to the use of condoms, has further undermined efforts to protect disempowered women from infection (Jackson, 1992). The combined effects of HIV/AIDS, unemployment and poverty are compromising the status of children in Zimbabwe. It was projected that 910,000 children will have been orphaned by 2005 (Woelk, 2001), and there are now over 12,000 street children countrywide (Unicef, 2000).

Background to the extent of the HIV/AIDS pandemic in Makoni District was estimated by a survey done at community level in ten wards. Each Community Health Club identified and registered all those within the village who had been diagnosed with HIV/AIDS. It was found that there were 376 bed bound, 555 housebound and 2,12, mobile, making a total of 3,052 infected. Those affected by HIV/AIDS were 1,663 orphans with no surviving parent, and 3,599 with one parent alive. In addition there were 2,354 widows and 436 widowers making a total of 8,052 people affected. This makes a total of 10,916 people infected or affected by HIV/AIDS in Community Health

Club areas in Makoni District and those infected are estimated between 7.2% to 3.1% dependent on size of population in each ward (See Annex 4.). this is considerably lower than the estimate nationally of 33% infected.

#### **4.7. THE HOMECRAFT MOVEMENT**

As background to the intervention this section revisits the historical development of women's groups from Colonial times to the present Community Health Club intervention.

##### **4.7.1. Commodification of the African market**

The desire for change in the selfhood of indigenous peoples and fascination for new commodities provided a ready market for merchandise in colonial Rhodesia. Opportunistic companies were quick to promote cleanliness and smartness in order to sell soap and body products to the African market. Social acceptance based on bodily hygiene was a major part of ethnographic typology (Burke, 1996). Missions were the primary source of upward mobility and taught domesticity, alongside religion, in order to 'civilise' local people (Summers, 1964).

##### **4.7.2. Ideals of domesticity**

The use of cleanliness as a measure of a person's relative cultural elevation and character may be one of the catalysts for change that produced the demand for domestic training in women's groups of colonial Rhodesia. Women, in an effort to elevate themselves by accepting new ideals of domesticity and appearance may have traded the control of their own fathers and spouses for that of the missionary moral code that so often focused on the personal appearance and habits of school pupils (Schmidt, 1992).

In addition the teachings of Christian missionaries tended to place 'Cleanliness, next to Godliness' and although this often prompted '*colonial debates over what forms of knowledge were appropriate to the 'native mind'*' (Burke, 1996) it bred a generation of progressives who wanted to embrace all that a western lifestyle could offer, whilst being relegated to second class citizens in a racially divided nation. The 'born frees'<sup>5</sup> may have had little contact with white missionaries and less opportunity for cross cultural observation. Few colonised countries in Africa have accepted the values of the colonizer to the extent that Zimbabwe has, and despite radical nationalist rhetoric at government level, the country remains relatively conservative with, with an

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<sup>5</sup> Those born after Independence in 1980



upwardly mobile professional and commercial black elite, aspiring to middle-class Christian values, whose children are often educated at pseudo-English private schools. In the countryside much of the popularity of the health promotion as conducted through health clubs may have roots in early missionary efforts and colonial philanthropic efforts which were institutionalised after Independence into government programmes, with health personnel such as the Environmental Health Technicians or agricultural extension officers providing the facilitating role.

#### **4.7.3. Philanthropic efforts of Colonial Settlers**

Two early initiatives which reflected humanitarian efforts to upgrade hygiene in rural homes are notable: The Jeanne's movement, in 1929 in Bulawayo and near Harare, and the Hasfa Homecraft Village near Rusape, which was set up in 1942.

##### **4.7.3.1. The Jeannes Movement**

The Jeanne's Movement which originated in America, was an attempt by the Phelps-Stokes Commission, to provide a more practical education for blacks (Burke, 1996).

*By Jeanism is meant the bringing of learning and the disseminating of knowledge of Western culture to the villages... and the essence of it was the link between the school and the community (Gelfand, 1976).*

In 1929, a Jeanne's Community was established near Bulawayo for women, and for men at the Domboshawa Training Centre<sup>6</sup> near Harare. For ten years, 'home demonstrators' returned to their villages to upgrade local village conditions with their skills in sewing and cookery as well as all aspects of child care, hygiene, maternity and first aid (Rasmussen & Rubert, 1990). The earliest social woman's group was at the Wesleyan Methodist Church in Old Umtali Mission.<sup>7</sup> Its mission was that ,

*Girls should be trained in every phase of home and community life – food, care of clothing, cleanliness, gardening and recreation rather than be given a plain education which might cause the young sophisticated Africans to lose respect for their traditional elders (Gelfand, 1976).*

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<sup>6</sup> This subsequently became one of the main training schools for Environmental Health Technicians

<sup>7</sup> in Manicaland Province, less than 50 kms from the area of intervention in Makoni District

#### 4.7.3.2. The Hasfa Homecraft Village<sup>9</sup>

The Hasfa Homecraft Movement also started in Manicaland Province, at St Faiths Mission in Rusape<sup>8</sup> where two missionary women opened a private school for women to come with their children, or for girls to prepare for marriage, training them to become:

*'...true homemakers and be able to cope with and improve living conditions in the reserves<sup>9</sup> ... to build homes in which love and health could be found (Gelfand, 1976).*

Between 1943 and 1960, the Trust had an intake of around 20 women every year trained to spread hygiene practices in the villages and assist local communities to cope with the demands of the modernity which was undermining their traditional world.

By the 1940s, more progressive white lay women were engaging philanthropically with black women, starting a variety of groups for sewing and hygiene, although this went against the general approval of the white community. The rapid spread of women's groups demonstrated their relevance to the lives of rural women and they became a popular means through which women could come together for collective social and political action. Thirty years later it was estimated that 10% of the female population of Zimbabwe belonged to 'homecraft clubs' that had been started by the Federation of African Womens' Clubs.

*The stereotypical images that the Jeanne's women and their superiors tried to create around the institution of home demonstration formed the basis for one of the most enduring archetypes of female personality in most Zimbabwean communities from the 1950's to the present day: the 'respectable, club going, Christian wife' (Burke, 1996).*

Although homecraft clubs were initially formed to transfer European notions of domesticity and stem the 'backwardness' of rural women, they played a major role in developing the gender consciousness that rural women eventually expressed during the liberation war from 1972 to Independence in 1980.

*These (women's groups) constituted a support group that offered urban women a replacement for the kind of mutual aid that village women could count on in times of crisis (Rasmussen & Rubert, 1990).*

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<sup>8</sup> Makoni District's Administrative Centre, where the NGO implementing Community Health clubs is now based

<sup>9</sup> Rural communal areas reserved for blacks, sometimes known as Tribal Trust Lands (TTL)

With the establishment of the Ministry of Community, Co-operative Development and Women's Affairs, Womens' Groups and co-operatives mushroomed in the early years of Independence and there were over 571 registered co-operatives by 1984, and 6,000 unregistered co-operatives, with a total number of around 170,000 women involved.

#### **4.8. THE PROMOTION OF HEALTH AND HYGIENE**

##### **4.8.1. A study on effective Health Education**

In the 1980's health education in Zimbabwe tended to be 'top down' lectures by Environmental Health Technicians, often tacked on as an afterthought to Water and Sanitation programmes, or didactic authoritarian directives at clinics whilst women awaited antenatal checkups. Mooney (1975) in a study undertaken in Makoni District with Environmental Health Technicians (EHT's) identified the following as critical factors to improve the current approach to health education: felt needs, education (defined as 'helping people to see their needs'), providing a physical example of the technology or a concrete demonstration, estimating how much outside help is needed, and the choice of a suitable time of the year. He also noted the cultural importance of providing communal refreshment at gatherings and a ceremony upon completion of the project. On the constraints that could derail a public health programme, lack of health education was noted by 36% of the Environmental Health Technicians in the survey, shortage of money by 21%, lack of co-operation by 14%, use of force by 12%, opposition from the community by 12%. Lack of planning and 'influentials' not getting involved accounted for 7%, whilst only 4% mentioned political opposition, traditional beliefs and suspicion. Interference by a community advisor, religious beliefs, and lack of time, training materials, manpower and follow-up were all mentioned by only 2%. Many of these lessons were new at that time and only became common practice in the early 1990's when more participatory approaches became known.

##### **4.8.2. Health Promotion and the use of PHAST : 1991 – 2003**

Participatory Health and Sanitation Transformation (PHAST) was one of a host of similar participatory methodologies, which became the vogue in development worldwide in the 1990's. PRA (Participatory Rural Appraisal) was a training system used to elicit information from the participants so that they could analyse their own felt needs, so avoiding the 'top-down' foisting of project targets upon largely passive beneficiaries (Chambers, 1983). PHAST uses a similar training technique to Participatory Rural Appraisal (PRA) (Chambers, 1983) but focuses on health promotion which was

specifically related to water and sanitation (Narayan & Srinivasan, 1994; Narayan, 1993, Srinivasan 1990).

PHAST was formally introduced into Zimbabwe in 1994 as part of a regional pilot project, when the first Training of Trainers Workshop was held. Prior to this WSP-World Bank initiative, participatory Health and Hygiene Education (HHE) training materials (consisting of a tool-kit of illustrated cards for different topics) had been developed by the writer and extensively pre-tested with the Domboshawa Training Centre (funded by WHO). By 1999, the Ministry of Health had trained most of the Environmental Health staff of the 57 Districts in Zimbabwe, and "Tool Kits" , of illustrated cards on 15 health and hygiene topics, were distributed to over 800 EHT's stationed throughout the country. In four years, an excess of US\$2 million was spent on funding Participatory Health Education (PHE) in Zimbabwe (WSP,1999). A total of 9,232 people were trained and this density as well as the wide spread of the training across the whole country, should have resulted in improved health within the rural areas. However despite this input, there was little to show amongst the community as a result of the training of EHTs.

The Community Health Club Intervention was planned simultaneously, based on PHAST principles, but because the health sessions were put into a more structured programme of sessions, with a specific content and measurable outcomes, the intervention was more able than conventional PHAST programmes, to measure the rates of uptake and hygiene behaviour change by the community.

## Chapter 5. The Community Health Club Model

### SUMMARY

This chapter moves from the current situation in Zimbabwe and outlines a Model of development to improve family health in rural areas through Community Health Clubs.

**Section 5.1.** examines how the cyclical world can be modified to a linear world view using the strengths of consensus to sustain change.

**Section 5.2.** provides an analogy to explain two survival strategies and the levelling mechanisms of peasant society than may inhibit individual initiative

**Section 5.3.** defines a functional community, looking at how to overcome some common psycho-social blockages to development by building social capital.

**Section 5.4.** is the core of this thesis, explaining the concept of the Community Health club Model, what makes a community health club member and objectives of a club.

**Section 5.5.** gives a detailed account of Stage 1: health promotion as an entry point, the method of training used, and what incentive there is to join

**Section 5.6.** explains the type of water and sanitation intervention which takes place in Stage 2. Implementation

**Section 5.7.** describes Stage.3, when health clubs divide into smaller income generating groups to providing a means to alleviate poverty which is one of the main determinants of poor health.

**Section 5.8.** explains the rational behind Stage 4 when social development initiatives such as care for vulnerable families and people living with AIDS, is a viable initiative as health clubs have consolidated successes of achievement having addressed many of their basic health problems.

**Section 5.9** provides the rational for the four stage approach and summarises the main characteristics of this model

**Section 5.10** revisits Nutbeam's (1999) criteria for a viable model of health promotion

## 5.1. THE MECHANISM OF BEHAVIOUR CHANGE

### 5.1.1. Conflicting Worldviews

The dominant 'liberal' tradition of Western politics characterises the challenge of modernisation as being the completion of a progressive process that began in colonial times that modern independent nations are still struggling to achieve (Keesing, 1981). Resistance to change is characterised by:

*'Traditional modes of social organisation, values, and customs which are by their nature conservative, and retard social change - which requires individual initiative, risk-taking, innovation, and freedom from constraints of kinship or customary obligation (Keesing, 1981).'*

The Community Health Club (CHC) Model whilst clearly trying to pursue a path towards changing some aspects of 'traditional' society differs from other modernising theories in the recognition that the same psycho-social forces of conservatism and consensus that are clearly successful in *blocking* development can be turned around to be a force to *promote* development.

It is further suggested that reasons for non co-operation, which have in the past been attributed to negative attributes of peasant culture, are more likely to be due to the fact that modernisation has been routinely promoted as an individual, progressive, activity rather than a survival strategy of the group. The CHC Approach recognises that it is this appeal to the individual to change in isolation from the group that often blocks change. Western notions often employ an ethnocentric approach failing to use the strengths of 'traditional' society - valuable mechanisms of consensus and conformity which to some extent have been undermined by the nuclear family model in industrial society.

The words 'traditional' and 'modernising' have become value laden, in as far as the label traditional has been often associated with 'any characteristic of the underdeveloped world which has been an obstacle to development, whilst modernising represents everything enlightened and successful (Rhodes, 1970). Therefore the purely functional terms *cyclical* and *linear* will be used to describe the two perspectives that represent two *modus vivendi*, neither of which are considered negatively.

Subsistence farmers have a living pattern that is dependent on the seasons and tied to the demands of agriculture. It is surmised that the annual cycle of planting and reaping crops conditions the peasant outlook and to encapsulate this idea, their perspective is here referred to as a *cyclical world-view*. By this is meant they expect life to follow the

same pattern as the previous generation with minimal change. Children are socialised to sharing similar values to those of the parents and grandparents, and behaving according to cultural norms (Keesing, 1981).

Modern industrial society is based on technological progress, and thus the world-view is one of adaptation to change. Agricultural seasons are largely irrelevant to the people of the industrial world, as the climate does not condition the behaviour of urban dwellers to the same extent. A person expects to improve either their talents or their prospects progressively from year to year and change is anticipated. This outlook is here referred to as a *linear* worldview, an arrow always pointing to the future, with very little reference to the past.

In societies the transition between agricultural and industrial livelihoods, tend to pull people in conflicting directions and this often creates a vacuum between a cyclical and linear worldview, referred to as a state of anomie (lack of norms). In a state of anomie, society becomes unstable and often dysfunctional, until new norms take over to direct behaviour (Merton, 1957).

*The importance of common interest associations in areas of rapid social change is considerable. Increasingly such organisations assume the roles and functions formally held by kinship or age groups; in many areas they hold the key both to individual adaptation to new circumstances and to group survival.'* (Haviland, 1993)

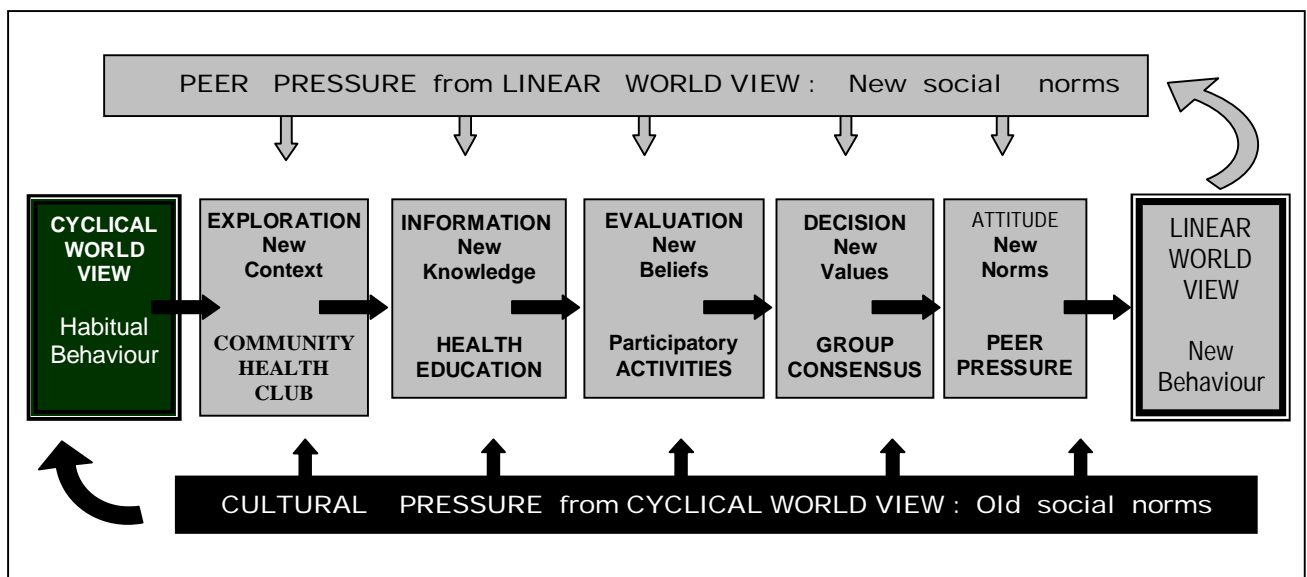
### **5.1.2. Cyclical-Linear Model**

This model tries to provide a simplification of the group dynamics that occur when a Community Health Club is introduced into an area. In an effort to distil these many threads of social and cultural determinants into a simple model, we have tried to envisage the *process* of change as a broad shift of the target population between two opposing world-views. Whilst many models of behaviour change provide an explanation of cognitive processes that produce change, there is a general lack of literature on how to change habits. Habitual behaviour has been formed initially by the socialisation of the child with traditional norms and values of the cyclical worldview, and these have become ingrained into adult behaviour with daily repetition. However, many of these habitual actions in terms of hygiene, are inappropriate and may damage the individual.

Health promotion theories such as the Health Belief Model and Social Planning (Stretcher & Rostock, 1997), assume if knowledge is given, people will automatically

change their ways for the sake of their own survival. However it now appears that knowledge does not necessarily result in action. In fully literate societies we find that smokers know full well that their habit can result in lung cancer, but still make no effort to preserve their life. The same lack of response is seen in rural 'communities' who continually ignore recommendations to use latrines. As models such as the Reasoned Action and Planned Behaviour (Ajzen & Fishein, 1980) individual behaviour is determined by personal belief and perceived personal control, reinforced by the subjective norm (the opinions of significant others). This is not dissimilar to the Model of Cyclical-Linear change, although the latter places much more emphasis on the importance of the subjective norm (peer pressure) to change individual behaviour in the context of a manufactured group. Personal belief and self efficacy are carefully manufactured within the health club, and reinforced because everyone ascribes to the same thing at the same time, so the whole flock fly together. Personal doubt is overcome because of the group belief; personal control is credible because others achieve it.

**Fig. 4:** Cyclical-Linear Model of changing Habitual Behaviour



### 5.1.3. Explanation of the Model

A Community Health Club provides a *new context* to explore *new knowledge* through Health Education. By using participatory activities members engage with *new ideas* through a process of debate and self-discovery rather than through the transfer of expert advice. If key messages are inculcated this may give rise to *new beliefs*. By working together to solve local problems a level of group consensus is achieved which helps individuals subscribe to new beliefs without fear of social censor. Consensus within the group manufactures acceptable *new values*, which are deemed



by the group to be more appropriate to meet the new situation. As each week brings new issues to the notice of the members, a raft of beliefs and values is built up which by the end of six months has become an integrated set of *norms* promoting a 'culture of health'. The critical mass is important in this model as there is continual pressure from the Cyclical Worldview to remain within existing practice. However if enough 'converts' are practising new behaviour and ascribing to new values the pressure to convert will intensify.

A 'converted' Community Health Club member can be predicted to behave in a way appropriate for a Health Club member. As behaviour change is based on *changed values* and reinforced by *cultural consensus* it is likely to be sustainable as it is not a superficial individual action but part of a larger culture of health.

## **5.2. RESISTANCE TO CHANGE**

### **5.2.1. Carnivores and Herbivores**

Humans, like animals, have different survival strategies. A behaviourist analogy is used to illustrate two basic strategies for human survival that have parallels in the animal world. In industrial society, cultural norms have developed to encourage a competitive, 'go-getter' mentality and the glory of individual achievement is a key motivator (Merton, 1957). Although the nuclear family is self-sufficient, compact, mobile and largely independent of control by kin, one of the problems is *'the great emphasis on the pursuit of individual gratification through competition, often at someone else's expense'* (Haviland, 1993).

These characteristics of the nuclear family are also to some extent the same qualities needed by the carnivore. To succeed the predator relies largely on its own ability, even when temporarily co-ordinating with others to hunt. They must be self-reliant, mobile and fast, relying on skill and cunning to survive by killing other animals.

By contrast the survival strategy of the herbivore is to co-exist in large herds without competing for food. The threat is usually external and animals breed in sufficient quantity to enable the herd to survive although individuals are taken. The strategy for the survival of the species is 'safety in numbers', rather than individual strength or cunning. In human terms we find the same 'herbivore' strategy echoed in the 'cyclical' worldview.

In an idealised subsistence society an individual is largely protected within the clan, by prescribed group decisions, and by the ascribed authority of the village elder, who

seeks to maintain strong group identity through cultural cohesion. As long as he conforms to its norms, the ordinary member has a safety net: his extended family. Individual strength is discouraged as it undermines the group. This is evident in the values most treasured in Zimbabwe:

*The Shona constitute a great brotherhood in which sharing the essentials of life with others is a basic requirement. At mealtimes people eat from a common plate. Greed is frowned upon and no man eats on his own.'*  
(Gelfand, 1985)

### **5.2.2. Insignificance of the Individual**

Health Promotion seeks to change people's hygiene behaviour. Personal change in the Western world may be understood as an individual act, but not in an idealised cyclical society: most activities are seen in the context of the whole. An individual action affects more than the individual concerned, it challenges the status quo, which is a way of life (Keesing, 1981).

The (herbivore) understanding that an individual life is less important than the survival of a family as a whole, may also explain the apparent lack of individual response to AIDS in Africa. As the extended family continues also in the afterlife, the long continuum of existence reduces the importance of individual life on earth (Ncubane, 1977). Individual freedom is perceived as less important than harmony of the whole: personal freedom is not encouraged as it may divide society. Change breeds inequality and it is safer to be the same as others because it avoids jealousy. Envy often results in conflict, which can destroy the society as a whole.

*A child is taught to avoid doing anything bad lest he is likened to a witch or attracts the attention of one. He must not boast, lest he provoke a jealous person who may harm him. Humility is considered one of the greatest virtues of man and is practised by the Shona to a very high degree*  
(Gelfand, 1985).

Programmes based on the Health Belief Model have made their appeal for change to each individual. By implication this is asking him to be better than his peers, and from the beneficiaries perspective this could start a chain of jealousy. The Community Health Club intervention, uses the opposite tactic. If a decision is taken by the leader or endorsed as a group, then the individual within the group can make the change, and need have no personal fear. Group consensus is achieved and the individual members

feel they must conform. Julius Nyerere, the first president of Tanzania, aptly summed up how decisions are taken in a well-known quip regarding political debate:

*'In Africa we sit under a tree, 'til we agree.'*

### **5.2.3. The double-bind of women in Zimbabwe**

Women have a double sense of unease when faced with change: conformity to culture impedes them, as well as traditional reliance on men for decision-making. Women seldom make major decisions and are accustomed to the passive role of minor if their husbands are at home. Despite the fact they are now often left to manage the family affairs most of the year alone, they are still socialised to be unassertive and housebound. In cyclical society, a woman has no personal power, and her attitudes and beliefs are largely dictated by conventional wisdom. A woman on her own cannot withstand social pressure in a society that protects its homogeneity by discouraging difference, and she is therefore reticent to make changes. However women in a group can support each other, often protecting each other, and are a powerful lobby for change particularly if led by elderly midwives. The elders of the village ensure the conformity, particularly of women's behaviour, to cultural mores and use the threat of 'ancestor wrath' to ensure social control. Thus they are often fearful, not only of their husband's anger and often physical abuse if they act without permission, but also the condemnation of the village elders.

### **5.2.4. Limited Good and Levelling Mechanisms**

Within an extended family a person can expect to be assisted by his relations, and he has every right to claim their support. Cultural values have a natural levelling mechanism in that every individual has a duty towards the whole extended family. If an individual earns enough to advance his own family beyond average living standards, his extended family often claim any surplus for their own basic needs. A very real fear of ancestral wrath, witchcraft, and social disapproval combine to ensure that redistribution of wealth takes place, for fear of ancestral wrath (Gelfand, 1986).

Foster (1965) sees the peasant world views as characterised by the image of limited good:

*'all the desired things in life such as land, wealth, health, friendship and love, manliness and honour, respect and status, power and influence, security and safety, exist in finite quantity and are always in short supply.'* From this would seem to follow the emphasis many have noted in peasant societies: families competing independently against

*one another, with each seeking to conceal its advances and to guard against loss of relative position to others; competition for friendship and love, within families and outside them; preoccupation with health and illness; and an emphasis on manliness and honour. (Keesing, 1981).*

If everyone in a village remains at the same standard of living and does not 'rise above their station' benign relations will be achievable with their neighbours. In a threatened culture, with limited access to material gain, it appears (See Section 9.1.3.3) that jealousy and vindictive behaviour are often the knee-jerk reactions to those who prosper. The 'Pull Him/her Down' (PhD) syndrome (as it is called locally) is an indicator of a powerful drive for equity within a culture succumbing to modern pressures.

In recognition of this levelling mechanism, health promotion is undertaken for the first six months without any material subsidies that could provoke competitiveness for the limited good being distributed. This strategy has been purposely upheld as a key tenant of the Community Health Club model to ensure that the group becomes united before introducing any divisive distractions. Only when the club is clear about its priorities are the goods such as sanitation subsidies and income generating technologies introduced, and this only to those who have earned it fairly by full attendance of the health sessions.

### **5.3. DEVELOPING COMMON UNITY**

The Community Health Club Model was crafted specifically for developing countries, particularly in Africa. By identifying the cultural strengths of the rural way of life, the Community Health Club Approach uses traditional values of conformity and group cohesion as a positive drive for self achievement, so employing psycho-sociological constructs to engineer behaviour change. It is assumed, in this theory, that 'Communities' are not fully functional at the outset of the intervention, and the building of 'common unity' is a calculated means of 'mending' communities to enable them to effectively control preventable diseases.

#### **5.3.1. A Functional Community**

The objective of the CHC Model is to develop a competent community that can provide support for its citizens and nourish human needs. This is effected by a process of development that progressively addresses the determinants of health, and may take up to four years to ensure sustainable improved health.

A community can be defined simply as:

*... a number of people who share a distinct location, belief, interest, activity or other characteristic that clearly identified their commonality and differentiates them from those not sharing it (Hoffman, 1994).*

The word 'community' has been called the 'aerosol word of the 1970's because of the hopeful way it is sprayed over deteriorating institutions.' (Jones, 1977). In most situations it simply refers to 'the people'. By dissecting the word into 'common-unity', its root meaning is regained. A 'community' often wrongly denotes a cohesive society when it is in fact just a group of families with little real common unity (See 5.12.1).

*A good community has opportunities for rewarding social relationships as well as for sustenance, employment, housing, education, health and social services and for individual participation in community decision making. It provides for social control, conflict management and desirable living conditions for all citizens. Most especially it provides care for those who cannot care for themselves.*  
(Fellin, 1989)

Whilst the idealised subsistence society functions through the control of village elders who ensure cultural cohesion, rural societies in most developing countries are in a state of transition to a westernised mindset (Keesing, 1981). Traditional midwives, are often uninformed on modern issues to compensate for the habitual ways which have been eroded by a younger generation seeks to make a transition to a modern lifestyle. By equipping women with health knowledge useful for modern issues (such as HIV/AIDS), they become once again an auntie (*vatete*) to be consulted on personal matters.

**Table 11: Common psycho-social blockages to development**

- **Levelling Mechanism (Haviland, 1993)** A societal obligation compelling a family to distribute goods so that no one accumulates more wealth than anyone else. Local field workers refer to this as the PhD Syndrome (Pull her Down Syndrome). This implies a malicious effort to undermine any progress made by others. Subconsciously it is the way a group under threat of change instinctively tries to remain homogenous.
- **Limited Good Syndrome (Foster, 1965, 1972)** : Individuals compete for personal gain when material subsidies are distributed and this undermines group cohesion.
- **Lack of Self-efficacy (Bandura, 1977)**: Those who lack self confidence are afraid to make individual decisions which may not be approved by husband / elders.
- **Big Man Syndrome (Haviland, 1993)**: If existing structures are used for the new intervention there is every likelihood that traditional leaders may hijack benefits for their own families whilst distancing planners from the poorest of the poor, who have little voice to object.
- **Wait and See Syndrome**: If the intervention is risky there is little margin for error and therefore conservatism is the safest option.
- **PhD Syndrome**: The Pull him/her down Syndrome (local expression) is a jealous reaction to the success of improvement of family or community members who try to change, or 'rise above their station'. Detractors seek to undermine their attempts by ridicule or active aggression.
- **Undemocratic Leadership**: Project managers have personally selected local leaders on the basis of their high visibility rather than by democratic vote.
- **Lack of Organisation**: No designated group has been given the mandate to institute new reforms.
- **Factionalism**: beneficiaries are divided between themselves and there are no mechanism for overcoming dissent, therefore the programme is abandoned.

The first objective of the Community Health Club approach is to rebuild a *common unity of purpose* through group consensus, a cultural mechanism that in the past bonded traditional society. Common unity is achieved by ensuring that everyone shares the same knowledge and understanding of local problems. To achieve consensus a consistent group is needed, so that knowledge once acquired can be reinforced with often repeated key messages. Reinforcement is bound to be more effective if the same people come every week, hence the rationale of getting people to subscribe to a club and a pre-arranged agenda. A club that meets regularly is very different from a 'gathering', made up of random assortment of people assembled without purpose. If a gathering is called again it is unlikely that that the same

people will attend, therefore each time the same basic information has to be repeated and progress between 'gatherings' cannot be made. By contrast a 'club' attracts the same membership each week enabling the entire programme of issues to be covered systematically. The club will obviously be more appropriate if it focuses on local problems which are also soluble by local people. Knowledge can be shared and multiplied, and for this reason it unites rather than divides.

The 'common unity of purpose' evident in Community Health Clubs was first coined by a fieldworker in 1997 who reported the following:

*It has been seen all over Nyamidzi ward, where the health clubs have been that the members have a common unity of purpose: they have become a real common-unity, and we can see them changing their ways for the better* (Nurse-in-charge, Nyamidzi Clinic, 1995).

### **5.3.2. Knowledge Sharing**

As discussed in Chapter 4, women in Zimbabwe had less access to schooling in colonial times and yet once literacy classes became available after Independence there was a rapid uptake, indicating a strong desire by women to learn (Auret, 1990). Although 85% of women are now literate it was surmised that girls have few opportunities for intellectual activity in the rural areas, as after leaving school they tend to marry young and be immediately immersed in child rearing. The Community Health Clubs provide a regular weekly forum for learning and debate on topics that are designed to interest women, and like literacy classes have been well supported by women. For two hours every week, men and women can meet on a social basis to exchange news, expand their minds and provide solidarity for each other.

### **5.3.3. Need to Socialise**

There are few opportunities to socialise in the rural areas, and women who find excuses to visit each other are considered idle. Women's Groups have always attracted support and Church groups are mushrooming in recent years. Although there are weekly funerals due to many AIDS related deaths, there are few purely social outlets for women. It was surmised that a common interest for women would be in family health and hygiene, and that this had been popular in the past whenever home-craft clubs had been started (See Section 4.6.3.2). Singing and dancing have always been an outlet for bonding in Shona and Ndebele culture and the Community Health Clubs provide another opportunity to socialise.

#### **5.3.4. The Need to Achieve**

The idea of structuring knowledge into achievable components is modelled after the Scout Movement that encourage children to learn skills in stages. Like the Scout Card, the Membership Card in Community Health Clubs allows members to complete a card of achievements, with the prestige of graduation when all tasks are completed. This technique of quantifiable achievement was purposefully designed as a strategy to achieve high levels of attendance. It is an assumption that the need to achieve, as identified by McClelland (1967) is as active in cyclical societies as it is in linear societies but that the opportunity for self improvement does not exist to the same extent.

#### **5.3.5. Building Social Capital**

The sharing of information and building of solidarity develops social cohesion and a safety network is put in place to supplement the erosion of traditional support systems that are disappearing in the confusion of old and new. When anomie is replaced by a new set of values, levels of social cohesion are strengthened, networks are firmly established and as a result the general level of Social Capital in an area increases. This concept refers to the level of trust and reciprocity in a given area from which all can benefit, whether they have contributed to it or not (Kawachi & Berman, 2000). For example, if Community Health Clubs are active, health in the area may increase, and this will benefit not only the members of the Health Clubs but all members of that society. Where there are high levels of Social Capital we find true communities, identifiable by their sense of common unity.

Supportive networks are important sources of positive self-concept and help to shape one's worldview (Miller & Turnbull, 1986) providing a buffer to protect individuals. According to Auslander and Levin (1987) social networks provide four main types of support:

- Instrumental (provision of goods and services)
- Emotional (nurturance, empathy and encouragement)
- Appraisal (information relevant for self evaluation)
- Informational ( advice and feedback)

Community Health Clubs should be able to provide all four means of support, and this issue will be revisited in the discussion.



## 5.4. THE COMMUNITY HEALTH CLUB CONCEPT

### 5.4.1. What is Community Health?

The determinants of health lie not only with provision of proper health care by government, as was demonstrated in the previous chapter, but also with the 'community', and more particularly the family itself. Safe living conditions and improved family can not be achieved if communities are dysfunctional because public health is a common issue. To provide safe water and safe sanitation may do nothing to alleviate poverty because the causes of poverty are understood to be more than a lack of material facilities. Provision of just the facilities is the 'sticking plaster' approach (Chambers, 1983) to development and does nothing to rectify the underlying causes of poverty, which may be social disintegration or disorganisation. Following Maslow's (1957) contention that basic needs must be fulfilled before the higher needs can be attempted, a healthy community is one in which all basic needs are satisfied.

*... a healthy man is primarily motivated by his need to develop and actualise his full potentials and capacities. If a man has any other basic needs in any active chronic sense, then he is simply an unhealthy man. If we were to use the word 'sick' in this way, we should then also have to face squarely the relations of man to his society.*

*One clear implication of our definition would be that*

- 1. since a man is to be called sick who is basically thwarted and since*
- 2. such basic thwarting is made possible ultimately by forces outside the individual*
- 3. the sickness in the individual must come ultimately from sickness in the society.*

*The 'good' or healthy society would then be defined as one that permitted man's highest purposes to emerge by satisfying all his prepotent basic needs (Maslow, 1943).*

'Community Health' is therefore defined in terms of mental, spiritual and physical welfare. Thus, a Community Health Club should not limit its activities to prevention of disease, but tackle all the determinants of health, both social and structural, providing a forum for psychosocial support as well as disease prevention. Health education is the entry point into a process that should potentially become part of a long term healing of the social malaise.

### **5.4.2. The Concept of a Club**

A club is, by its very nature, exclusive, in that members have a common interest not shared necessarily with those outside the club. They tend to set themselves apart from others by self-identification of attributes for which members are recognisable. They perceive themselves as different in that they share a common ethos or purpose. They understand each other; they speak the same language. The concept of a 'club' has provided detractors with an opportunity to criticise the elitism that this may denote. However this delineation of a dedicated group within a club, is in fact, its strength. There are privileges and opportunities within the club, which are not open to non-members, and this makes it desirable (and worthwhile) becoming a member. As there are no qualifications to becoming a member, a Community Health Club is, in fact, not an elitist group, as anyone can join at any time. It is open without charge, to men and women of all ages, all levels of education and religion. The aim is to be as inclusive as possible so that the majority of homes in each village have a representative within the club.

The club identifies itself publicly by a specific name representing its objective; it has a constitution outlining its rules; a democratically elected executive committee, voted annually, headed by a chairperson, secretary and treasurer. Membership is gained by free registration and records of attendance are carefully kept. A membership card is issued to each member, listing the topics to be covered and recommended practices. Upon presentation at each session the card is signed by the facilitator recording which topics have been attended, and date of attendance. Often members identify themselves by uniforms, and a banner is made showing a map of the catchment area of the club, indicating all homesteads, members, and relevant facilities. Each health club has its own health songs and slogans denoting their commitment to the ethos of good health.

### **5.4.3. The Objectives of a Community Health Club**

The Health Club ethos is devoted to developing a 'Culture of Good Health'. This does not mean the regulation of members by repression or coercion, but the adherence by members of voluntary conversion. In effect the Community Health Club can be compared to a secular church. In an evangelical Christian Church, members also meet regularly usually weekly, and identify themselves as brothers and sisters because they are 'saved'. In addition to compulsory church attendance, and bible reading, they may share a common moral code, which they uphold by social reinforcement. Christians identify themselves by shared observances (e.g. no drinking, smoking or adultery) and their behaviour is reinforced largely due to peer pressure.

Health Club members can similarly be recognised by their behaviour: They take care of their families with more pride, adhere to certain standards of hygiene, behave in recognisable ways and their homesteads are recognised even from a distance. They have pot racks, rubbish pits, a swept compound, a latrine which is clean, a washhand facility with soap, a nutrition garden and fruit trees, a woodlot and very often keep bees and grow medicinal herbs. Inside their kitchens, the drinking water is stored with a cover with a ladle to draw drinking water. All the family use their own individual cups, usually displayed on a dresser moulded with clay along the wall. Members are distinctive as they use the pour-to-waste method of hand-washing rather than the traditional 'common bowl' method, and each person eats their food from an individual plate, rather than helping themselves from a common dish. Health Club members usually know all about a balanced diet and their children are healthy, their skin and eyes are clear and their hair dark, with no signs of malnutrition.

They also tend to dress smartly and are aware of their status, they are proud of their standards, and ready to 'convert' others. They 'speak the same language of good health', and perceive themselves 'empowered' and are not afraid to speak in public. The *values* of good hygiene are directing these *norms* that result in good hygiene behaviour. Instead of targeting isolated practises, the entire 'raft of changes' is expected, because a person who understands the germ theory will attend to every detail with creative intelligence, rather than by following a few prescriptive demands (Table 12).

#### **5.4.4. Not a just women's group**

While it is true to say that women may constitute at least 80% of most clubs men are not excluded. As men tend to perceive household hygiene and children's issues as primarily their wives' concern, they tend to leave weekly attendance to their women. However, many men have joined the health clubs, particularly in resettlement areas, where most men remain full-time in the rural areas to farm, as opposed to communal areas where they tend to work in towns most of the year. However there is an understanding that they are there as a minority and as such few hold positions on the executive committees, even if they are in the club. Most clubs are attended sporadically by the village elders, who lend credence to the proceedings by their support. The name '**Community** Health Clubs' rather than 'Women's Group's' or 'Mother's Groups' is used so as not to discourage men from joining. Families in which mother and father are health club members, as well as grandmother and daughters are held up as progressive examples to the rest of the Club because it is recognised that a forum is

needed for the *whole* village to share ideas. If a programme appeals only to women, new ideas may be blocked by conservative husbands (See Annex 13.10.).

#### 5.4.5. Behaviour Change as a Process

The main objective of all development initiatives is to bring into effect changes that will improve the standard of living in the targeted area. In addition it is more cost-effective if these standards provide lasting benefits and can be maintained indefinitely by that community. According to the 'Community Health Club Approach' behaviour change is more likely to be maintained when it is introduced through groups rather than through individuals. However change which involves the attitudes of people, does not happen in a one-off event as would be the case in the provision of facilities. Behaviour change requires time for people to adapt their thinking and their habits and for this change to take place key messages have to be periodically reinforced. If a person is malnourished the doctor does not prescribe a whole bottle of vitamin pills at once, but slowly builds up their health with a small dose each day. This 'little but often' strategy is also used for building better practices.

### 5.5. THE FOUR STAGE PROCESS:

#### STAGE ONE: THE HEALTH PROMOTION CAMPAIGN

*Fig. 6. An example of the Membership Card for health education theory*

No.	TOPIC	DATE	SIGNATURE
1	Mapping of Village		
2	Disease Identification		
3	Balanced Diet		
4	Nutrition Plans		
5	Diarrhoea		
6	Salt Sugar Solution		
7	Home Hygiene		
8	Water Sources		
9	Drinking Water		
10	Water Storage		
11	Hand Washing		
12	Bilharzia		
13	Skin and Eye Diseases		
14	Worms		
15	Sanitation Ladder		
16	Sanitation Story : Plans		
17	Malaria		
18	Respiratory Diseases		
19	Tuberculosis		
20	AIDs and STDs		

Health Sessions take place weekly for two hours, at a regular time and place convenient for the villagers themselves. The topics at the health sessions are facilitated by a government or NGO field worker, assisted by a local Village Community

Worker and Health Club Chairperson. There is a prescribed content of knowledge to be acquired and this is set out in the Membership Cards that every new member receives upon joining the club. This card is printed in the vernacular, and the topics (Fig. 6 above), may be taken in any order depending on the relevance of the topic to the season.

### **5.5.1. Method of Training**

The training methodology is identical to that promoted by PHAST (Participatory Sanitation and Hygiene Transfer; See Section 4.7.2) using a standardised tool kit, which has been developed and pre-tested specifically for the area, and is ethnographically appropriate to the local conditions. The facilitator is provided with three sets of illustrated A4 size cards for each topic (See Annex 16: Catalogue of training materials). The facilitators will have undergone an intensive one week training in the method of using PHAST/PRA approaches so that they are conversant with standard participatory activities using illustrated cards to be carried out with the community.

### **5.5.2. Participatory Activities to gain Health Knowledge**

To be as inclusive as possible, the training is designed for illiterate or semi literate people, although educated people can also enjoy the sessions. Typically each session begins with an explanation of the activity. The group are divided into three sub groups and each are given a set of illustrated cards and at least half an hour to complete one of the following the activities:

- **Three pile sorting:** cards are sorted into Good, Medium and Bad piles
- **Blocking the Route:** The cards are sorted into line to show how the disease is transmitted. Other cards showing preventative interventions are then used to block each of the cards depicting a risky behaviour'
- **Ranking:** Cards are ranked in order from poor to good
- **Story with a Gap:** Two cards are given: one showing an undesirable situation and one showing an improved situation. Participants are asked to work out how to move from one to another.

The groups come together into a plenary session and each group presents its activity. Extensive debate is encouraged to enable all issues to be discussed. The facilitator is purely a chairperson in the debate allowing the group to come to its own conclusions. Once problems have been clearly identified, the facilitator ensures that the group undertakes to do 'homework' before the next session.

### 5.5.3. Practical Application of Health Knowledge

'Homework' entails changes that can be made to household hygiene methods, such as covering water, building a pot rack or sweeping the yard. They should be within the capability of the member and should cost little or nothing to achieve. Each week a different practice is targeted, so that by the end of six months most of the common causes of poor hygiene in the home have been altered. These 'practical recommendations' are listed on the reverse of the Membership Card (Fig 21. below) so that members are constantly reminded of their goals.

**Fig.7.** Practical Recommendations for Health Club Members  
(Reverse side of Membership card in Fig. 6 )

No.	TOPIC	A.H.E.A.D. MEMBERSHIP CARD	
1	Village Map	<div style="border: 1px solid black; width: 80px; height: 40px; margin: 0 auto;"></div> <p>Name: .....</p> <p>Club Name: .....</p> <p>Ward: .....</p> <p>District: .....</p> <p>EHT: .....</p> <p>Date started: .....</p> <p>Date finished: .....</p> <p>Graduation date: .....</p>	
2	Health Drama and songs		
3	Nutrition Garden		
4	Orchard		
5	Protected water source		
6	Covered drinking water		
7	ladle to take water		
8	Individual cups		
9	Individual plates		
10	Individual blankets		
11	Mosquito nets		
12	Pot rack		
13	Rubbish pit		
14	Hand washing facility		
15	Safe sanitation		
16	Clean yard		
17	Disease Monitoring		
18	Soap making		
19	Immunisation		
20	Wood Lot		

Group pressure ensures that behavioural change becomes *mandatory* within the club. This is in recognition that each person's health depends not only upon their own efforts but also that of their neighbour. Home visits take place where all members visit each other's homes and offer advice or encouragement for changes which take place. Competitions and rewards for the best homestead are sometimes a feature of club activities. To be a health club member indicates a certain level of hygiene: regular hand-washing using the pouring method and soap; a pot rack; covering water; using a refuse pit and, a hand-washing facility in the homestead, as well as using cat sanitation if there is no latrine.

### 5.5.4. Incentives to learn

There are no incentives for attendance such as the provision of a meal, or handouts such as soap or T-shirts to entice members to come to the sessions. This practice is purposely avoided as it is seen to be unsustainable in the long term, as it is largely reliant on donor funds. The only incentive to attend sessions is the qualification for a certificate for those who attend all sessions. There is no examination or test of competence to gain the certificate, but all recommended practices must have been undertaken. The Chairperson of the Health Club assisted by the secretary, keeps detailed records of each member homestead. For every session that is attended, the member presents her/his card for a signature from the facilitator. Weekly sessions continue until all the twenty topics have been covered. Those members who have covered all topics are then entitled to receive a Certificate.

**Table 12:** A raft of changes expected in Community Health Clubs

<p><b>DIARRHOEA, CHOLERA, DYSENTERY, &amp; TB</b></p> <ol style="list-style-type: none"> <li>1. <b>Covered drinking water*</b></li> <li>2. Boiling contaminated water</li> <li>3. <b>Use of ladle for taking drinking water*</b></li> <li>4. <b>Hygienic handling of drinking water*</b></li> <li>5. <b>Hygienic handling of water/food containers*</b></li> <li>6. <b>Washing plates after meals*</b></li> <li>7. <b>Pot rack for storing clean plates/pots*</b></li> <li>8. <b>Safe storage of left over food*</b></li> <li>9. <b>Use of individual cups for each family member*</b></li> <li>10. <b>Use of individual plates when sharing a meal*</b></li> <li>11. <b>Clean containers for water storage*</b></li> <li>12. Washing hands before touching food</li> <li>13. Washing hands after faecal exposure</li> <li>14. Safe disposal of toddler's faeces</li> <li>15. Keeping compound free from garbage/faeces</li> <li>16. <b>Well managed rubbish pit *</b></li> <li>17. <b>Safe sanitation practices (cat, covered, VIP)*</b></li> <li>18. <b>Clean well maintained latrine*</b></li> <li>19. <b>Use of safe water source*</b></li> <li>20. <b>Use of Hand Washing Facility (HWF)*</b></li> <li>21. <b>Use of soap for hand washing*</b></li> </ol> <p><b>SHISTOSOMIASIS, PARASITES, HOOK WORM</b></p> <ol style="list-style-type: none"> <li>22. Cover faeces/use a latrine/ cat sanitation</li> <li>23. Wash at home not in contaminated water sources</li> <li>24. Wash plates and clothes at home</li> <li>25. Do not swim or take water in contaminated sources</li> <li>26. Protection when taking water from unsafe source</li> <li>27. Test and take bilharzia cure</li> </ol>	<p><b>TRACHOMA, SCABIES, TAPE/RINGWORM</b></p> <ol style="list-style-type: none"> <li>28. Washing children's faces regularly</li> <li>29. Washing children daily</li> <li>30. Pour-to-waste method of hand-washing used*</li> <li>31. Avoid sharing clothes with infected people</li> <li>32. Avoid shaking hands with infected people</li> <li>33. Avoid sharing bedding with infected people</li> <li>34. Do not use communal towels for drying hands</li> <li>35. Wash clothes and bedding frequently</li> <li>36. Wash with soap before sleeping</li> <li>37. Keep compound well swept*</li> <li>38. Wash uncooked fruit before eating</li> <li>39. Keep fingernails cut short</li> <li>40. Provide a well balanced diet for the family</li> </ol> <p><b>HIV/AIDS &amp; STDS</b></p> <ol style="list-style-type: none"> <li>41. (ABC) Abstinence, Be faithful, use a condom</li> </ol> <p><b>MALARIA</b></p> <ol style="list-style-type: none"> <li>42. Empty all containers that catch rainwater</li> <li>43. Fill in ruts and pots holes to prevent standing water</li> <li>44. Use of mosquito net, specially for young children*</li> <li>45. Cover up with long sleeves when exposed at night</li> <li>46. Cut grass and vegetation around homes</li> <li>47. Use mosquito repellents/coils/ make repellent</li> <li>48. Use Mosbar/citronella soap for washing every night</li> <li>49. Use mosquito netting on window</li> <li>50. Test &amp; take malaria cure immediately when affected</li> </ol> <p><b>* Spot observations conducted during this household survey</b></p>
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Revision sessions take place until all members have been given a chance to complete. It is important to note that the strict rule of 'full attendance' before 'graduating' was determined by the Health Clubs themselves, because it was realised that an unambiguous standard would allay the inevitable problems of negotiation or favouritism if only a certain percentage of attendance was required. Certificates are presented at large public 'Graduations', and accompanied by extensive singing, dancing, drama presentations and home inspections. Local dignitaries attend and graduates are given extensive praise and recognition.

## **5.6. STAGE TWO: IMPLEMENTATION**

The methodology used in the training is likely to produce a strong demand for a safe drinking water supply and sanitation. The need for a protected water supply and safe sanitation facilities are key components of environmental health. However these facilities cost more than is normally affordable by rural householders and it is therefore important that before starting Community Health Clubs, a water supply intervention is planned to follow immediately after the health promotion phase. Within emergency programmes, water and sanitation provision can be done concurrently with health promotion, although this is not as ideal in ensuring the community is well prepared.

### **5.6.1. Water Supply Programmes**

By the end of the health promotion stage, the community has organised itself, and is fully capable of the management of the water supply aspects of a programme. If a communal facility such as a protected spring or borehole is to be installed each water point should be allocated to a specific health club to take as its own responsibility. A training course on Community Based Management (CBM) is organised for all those nominated by each Club to become members of a water point committee. This team will preferably be headed by a woman, with a pump technician and treasurer, who will have direct responsibility for the maintenance and cost recovery mechanisms. Members who train for CBM must have gained their Health and Hygiene certificate to ensure they are fully committed. They are issued with CBM Cards outlining their training (See Annex. 5), and receive Grade 2 certificates upon completion of the CBM training.

Many water and sanitation programmes in developing countries have started implementation without adequate preparation of the community and therefore facilities, which have been provided are sometimes abused by the beneficiaries, as they are not perceived as being owned by the community. This lack of ownership



affects future sustainability and maintenance of systems. By starting with the formation of health clubs and six months of preparatory health promotion, the water and sanitation component will be well appreciated by the community. By contrast Health Clubs stimulate a strong demand for sanitation (Waterkeyn & Waterkeyn, 2000). The intervention discussed in this thesis, was designed to allow for six months of health promotion prior to a sanitation programme being implemented.

### 5.6.2. Sanitation Programmes

Safe sanitation is obviously another key component of environmental health (Esrey, 1997) and the hidden agenda of health club promotion is to ensure that a high proportion, if not all the members of the health club, build their own family latrines. Designs and standards for latrines vary from country to country, and each intervention will target a certain level on the 'sanitation ladder' suitable for the local context (See Annex.16). At the lowest level, perhaps as an interim measure in an emergency programme, this may entail encouraging all members to practice 'cat sanitation', the simple burial of faeces in a covered hole when defecating in the open. In many cases cat sanitation can be more hygienic than poorly maintained latrines where faecal deposits can be found around the pit, and flies have ready access to faeces deposits in uncovered latrines. This simple method, together with Alternating Compost Latrines was used in Sierra Leone in post-conflict resettlement of 50 villages (Waterkeyn & Waterkeyn 2001). Operating through Community Health Clubs, this sanitation promotion achieved zero open defecation within a six month period. A simple traditional pit latrine with a well-fitting cover and a cleanable sanplat<sup>10</sup> or slab may also be an achievable level. This design was used in 120 health clubs in 15 Internally displaced peoples (IDP) camps in Uganda. Within 6 months there were 12,000 traditional latrines were built over half with either cement or polyfibre sanplats (Waterkeyn et al, 2005). The Blair Latrine, with lined pit, slab, and ventilation pipe, was the standard level acceptable in Zimbabwe, where over 3,600 Blair Latrines (approximately 30% of all latrines built in Zimbabwe that year) were built in 18 months in two districts (See Table 16).

Health Club members understand the need for good sanitation and in three countries where health clubs operate have shown a ready ability to run their own sanitation programmes. Even women readily engage in the construction of household latrines. They dig pits (approximately 3 metre deep), line them if required, make sanplats, as in Uganda and also can be taught to construct the superstructure as in Zimbabwe.

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<sup>10</sup> Cleanable, durable (usually cement) surface to a pit latrine, distinct from a concrete slab which is self supporting.  
n Gulu a new polyfibre plastic moulded sanplat was designed by the author and produced in Uganda for the first time.

The organisation of the programme can be done within the health club and records kept by the chairperson and secretary, thus alleviating much of the cost and involvement of the partnering NGO. This approach also ensures that latrines are really owned by the people themselves and thus maintained properly. In all three countries only those who had completed the Stage One, health promotion component were included in the Stage Two latrine building. Whilst this criteria may appear exclusive, it was in fact a key factor which ensured all latrines were properly maintained and constructed for the reasons for which they were intended, safe disposal of faeces. Limited resources within most sanitation programmes make it imperative that those that do benefit from sanitation subsidies are likely to make good use of the assistance, and this criteria ensures that these resources are not wasted.

### **5.7. STAGE THREE: SUSTAINABLE LIVELIHOODS**

The determinants of health as identified by the Ottawa Charter (1986) emphasis that for an individual to achieve complete well-being he/she should to be able to *'identify and realise aspirations, to satisfy need and to change or cope with the environment'* (See Section 1.1). In the context of rural areas of developing countries, this means to be able to achieve a sustainable livelihood on the land, the means by which most subsistence farmers can avail their existing skills and resources. The health club members at the end of two years are not only fully 'health literate' and 'sanitation-conscious', with appropriate facilities to match these ideals, but the health clubs are in a strong position to become a *vehicle* for any other development initiatives that the community need to undertake. In order to stem the flow of villagers to the urban area seeking employment, and to enable rural areas to become a viable means of sustainable livelihoods, rural enterprises need to be established. There is an opportunity to use the existing Health Club as institutions to provide opportunities for additional skills training for income-generating activities based on local resources.

Each Health Club divides into smaller groups, with each group specialising in one activity, so that every member can achieve a particular skill. A PRA (Participatory Rural Appraisal) workshop is held to identify individuals priorities and training follows, ensuring that each member in the health club develops a particular skill, and has access to the required machine. By providing Health Clubs with minimal appropriate technology such as hand-operated oil presses, soap-cutters and food-driers, women farmers in particular are quick to produce extra crops and make dried vegetables and herbs, oil, soap, insect-repellent lotion, all of which is saleable locally and can provide an income. In addition with training in organic vegetables and herb growing, community nutrition gardens particularly associated with boreholes maintained by the community health clubs can generate an extra income to sustain

the most vulnerable members. Any intervention that is undertaken with a well-organised community health club will be likely to succeed, as they have been an operational unit with a proven capacity for change. At this stage the health club is often used by other agencies wanting to engage in other programmes.

The 'Sustainable Livelihoods' (DFID, 2000) approach, has highlighted the fact that poverty is the underlying factor responsible for poor health. Therefore, taking health in its broadest sense, the well being of the family cannot be improved unless there is an assured means of income, preferably allowing the mother to earn and control her own earnings for the benefit of the family. Many of the recommendations such as individual plates and blankets, mosquito nets, latrines and a balanced diet require more income than is usually available within the family budget. Additional income is needed to raise living standards, and this is seldom provided by the husband who usually has other priorities. Beer, radio or bicycles tend to take preference over new blankets, plates and kitchen equipment which would be the usual mother's priority. In addition, the death toll from AIDS has meant the death of the bread winner and many women are having to provide for their families, often with few skills or resources. The income generating activities within the club have enabled women to support their families and provide school fees (See Section 9.1.3.1. and 9.1.3.2).

The crucial aspect of all these ventures is the training in financial management to ensure sound bookkeeping. A local co-ordinator for all the clubs in one ward is then elected from the health clubs and trained, and has the responsibility to monitor all the groups, and assist with financial and managerial problems.

#### **5.8. STAGE FOUR: SOCIAL DEVELOPMENT INITIATIVES**

This is an open-ended stage to cover many of the social aspects that have not been addressed so far under the largely practical activities of the club. Issues that arise here are often psychosocial problems, such as wife abuse, child abuse, alcohol and drug abuse, care of widows, orphans and the terminally ill, resulting from HIV/AIDS. It may also cover training in human rights and voter education, and it addresses issues of self-confidence, self-efficacy, and emancipation. This is the time to ensure that each club has a trained Adult Literacy Tutor, so that club members can become fully literate. Social Development is an ongoing process and should ensure that permanent structures exist within the village to deal with all social problems of the area. The Community Health Club by this stage will have become a key organisational structure for the area, taking responsibility for ongoing monitoring and support of all its members and the public at large.

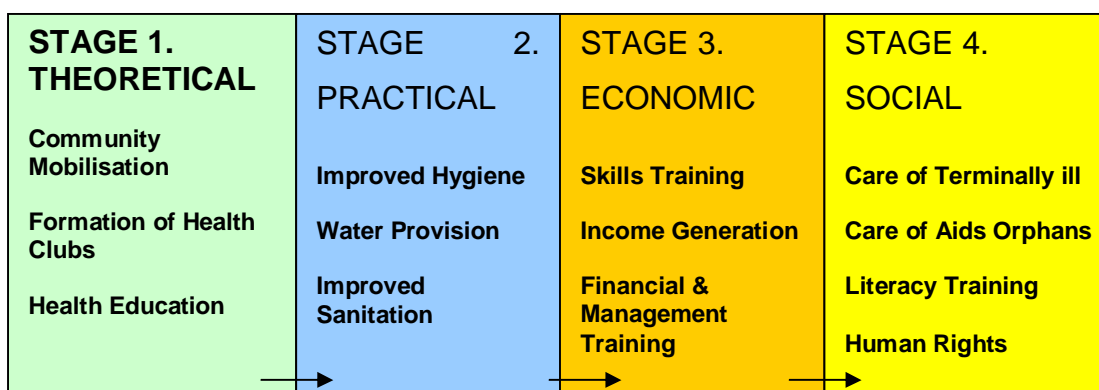
Having been working together for over three years, Community Health Club members have a well-developed sense of responsibility for the health of the family. It is a small step to extend this ethos to the community, particularly when a high percentage of the community are already represented in the health club. The ultimate test of a successful health club is whether it can find the resources within itself to attend to the orphans and widows and terminally ill within the area. The causes of HIV/AIDS will have been discussed, and mechanism to prevent the spread of HIV will have been put in place in the first year of the health club. However this does not deal with the long term problem of how to cope with the number of dependent widows and orphans, in countries where there is little government support.

In the fourth year, a home base care trainer for each club is trained, who is responsible for overseeing all the cases within the area, ensuring that families know how to care for the terminally ill, make provision for children, and provide counselling in non stigmatisation and for the bereaved. The health club keeps a record of all those living with AIDS and ensures they are supported by health club members in terms of food, clothing and other essential services such as fetching firewood and water. A percentage from income generating projects is sometimes put towards a fund for school fees for orphans, and mothers have a roster to assist child headed families and ensure community support. Programmes to enable the families of people living with AIDS (PLWAs) to earn an income is essential. For example in Makoni district irrigation drip kits were distributed to PLWAs to enable them to easily water their own nutrition gardens. Bee hives and training in bee keeping was given to the families of PLWAs (See Annex.2) who were also taught to propagate herbs and uses herbs for medicinal purposes to combat the many opportunistic infections that make the life so difficult for those living with AIDS which helps to alleviate many of the social problems of AIDS.

## **5.9. DEVELOPMENT IN STAGES**

There is no blue print for a 'development package' that can be neatly transferred from one context or country to another. However given the demands of daily living for subsistence farmers, and women in particular, it is clear that development agencies must be careful not to overload a community with every type of initiative at the same time. It has been found that the method used in the Community Health Club Approach which staggers different interventions into roughly four main phases is also a logical progression that has suited the communities in Zimbabwe, where some Health Club have now been operating for ten years.

**Fig: 8.** The Four Stage process of development in Community Health Clubs



This is the only country where the Community Health Club Approach has been taken to its full potential. For the sake of clarity the process of development has been divided into four separate stages, although in practice the stages often overlap and are not always in the order prescribed. For example in Ugandan IDP Camps where there was an emergency situation, funding requirements dictated a six month time frame. Therefore, the health promotion and sanitation components ran concurrently and the community was almost more responsive. The use of Community Health Clubs only for health promotion, water and sanitation is usually dictated by funding restraints and a vertical programme designed to target specific health problems, rather than heal the community health in its totality. Once a Community Health Club has been through all four stages the supporting agency can exit with the knowledge that the community can sustain its own development, and that all the determinants of health have been addressed.

**Table 13:** *Characteristics of the Community Health Club Approach*

**The Community Health Club Approach:**

- Responds primarily to community needs
- Uses health education as an entry point
- Involves a long-term partnership through different stages
- Uses participatory training techniques to develop self-efficacy
- Structures health promotion into an agreed syllabus
- Transfers a quantifiable amount of health knowledge
- Transforms knowledge into applied hygiene
- Achieves behaviour change through peer pressure
- Creates a strong demand for sanitation
- Promotes a broad spectrum of development initiatives
- Forms a strong community based organisation (CBO)
- Quantifies cost-effectiveness of the programme;
- Cuts across sectors within Government ministries
- Enables sustainable development
- Deals with social issues such as PLWAs

#### **5.10. EVALUATION OF THE MODEL**

Any valid model of human motivation should have predictive power (Nutbeam, 1999), The success of this strategy will be gauged by the ability of a Community Health Club to:

- increase the knowledge of its members in health and hygiene issues;
- ensure that members to modify their habitual behaviour and improve their home hygiene;
- sustain itself as an institution after the external intervention has ended.

Having described the social mechanism at work within Community Health Clubs, the next Chapter will outline the intervention as it was carried out in Zimbabwe.

## CHAPTER 6: THE INTERVENTION

### SUMMARY

This Chapter describes the implementation of the Community Health Club Model in the field.

**Section 6.1.** describes the extent of the field trial by showing the increase in number of Community Health Clubs and members between the field trial in 1995, scaling-up firstly to a pilot project in 1997, and to 3 districts in Zimbabwe between 1999 and 2001.

**Section 6.2.** describes the intervention area in Makoni District, Manicaland Province, and Tsholotsho, Matebeleland North with comparative statistics on the demography, and Community Health Club achievements.

**Section 6.3.** describes the extent of the training of trainers and differentiates between standard PHAST training in participatory activities and the structured participation in Community Health Clubs.

**Section 6.4.** gives some background as to the pertinent issues related to sanitation in Zimbabwe, and outlines the two different methods of subsidy and design of latrines in Makoni and Tsholotsho Districts.

**Section 6.5.** provides an analysis on different stakeholders involved in the implementation of hygiene training, water and sanitation at National, District, ward and village level, and provides some analysis of their separate roles in the programme.

**Section 6.6.** shows how the training *inputs* of the EHT and the *outputs* in terms of measurable hygiene behaviour change can be monitored by triangulating three sources of information: the club's own records; the Membership Cards and the EHT Monthly Claim Forms.

**Section 6.7.** provides information from project records on the cost of the implementation, showing that Hygiene Promotion in Makoni District (1999-2000) is only 20% of the total project costs at under US\$25,000 for two years, and can be achieved at 35c (US\$) per beneficiary.

**Section 6.8.** records how Community Health Clubs have become institutionalised into Makoni District

**Section 6.9** describes how the Sustainable Livelihoods Stage of the Community Health Club Model translates into over 500 income generating activities in Makoni District

**Section 6.10** describes how in the fourth Stage of Social Development, fully fledged Community Health Clubs take full responsibility for dealing with the substantial social issues related HIV/AIDS, caring for the terminal ill and vulnerable families in each village.

## **6.1. THE INTERVENTION**

### **6.1.1. Field Trial of Community Health Club Concept (1994-1996)**

The concept of the Community Health Clubs was tried out in a small field study (1994)<sup>11</sup> in which six health clubs were established in Ruombwe Ward in Makoni District, Manicaland Province. It was anticipated that there would be thirty women per club, but after six months there were six clubs with 615 members, an average of 102 members per club. Subsequently the field trial was expanded for another six months to two other wards (Tanda and Nyamidzi) in 1995 and demand was equally encouraging, reaching fourteen clubs with an average of 97 active members; this increased the following year, 1996, when the same trainers started new clubs in existing wards bringing the total number of health clubs to thirty by 1997, with 2,846 members. The demand in the two new wards was as strong as in Ruombwe ward, indicating that it was not the personal capacity of the EHT which was causing the high membership in the health clubs. In 1997, a Pilot Project<sup>12</sup> was established in a total of ten wards and membership increased to 6,561. The same pattern of community response was evident in all wards and all EHTs reported high levels of interest in the hygiene training and positive uptake on recommended practices by club members (Zimbabwe AHEAD, 1999).

### **6.1.2. Scaling up the intervention**

With the increasing demand, funds were sought to start an NGO, which was established for the purpose of expanding the approach. Zimbabwe A.H.E.A.D Organisation (Applied Health Education and Development) was established for this purpose in 1998.

The following year the intervention went to district scale<sup>13</sup> and by the end of the year there were 7,909 members in 131 clubs run by 13 EHTs in 20 wards in Makoni District.

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<sup>11</sup> Makoni District Community Health Club Field Study (Funded by Unicef)

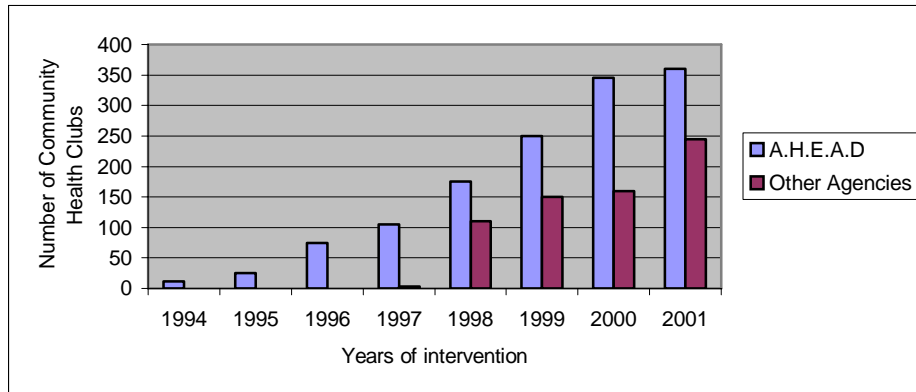
<sup>12</sup> Makoni Community Health Club Pilot Project (1996-7) (funded by Oak Foundation)

<sup>13</sup> Makoni Preventative Health Campaign (Funded by Danida (1998-2000))



Elsewhere (by the end of the first year of the NGOs operation), there were another 103 clubs in Gutu District with 7,543 members in 11 wards each with an EHT, and 26 clubs in Tsholotsho District with 1,545 members run by 3 EHTs. In addition there were two other districts where EHTs had independently started health clubs without external funds: 4 clubs with 250 members in Chivi and Mazowe Districts.

**Fig.9.** Increase in number of Community Health Clubs in Zimbabwe (1995 to 2001)  
(Source: Zimbabwe A.H.E.A.D Organisation)



The total number of club members was 17,282 in 5 districts, which at an estimated household size of six, implies a total of 103,692. Membership is calculated only on active attendance, and not on those who have merely registered and hold a membership card. Therefore the membership numbers reflected throughout this study are conservative, considering that some members may be semi-active and have not been counted as they did not attend consistently.

By February 2001, when the interventions ended formally there were 11,450 members in 265 clubs in 23 wards in Makoni; 2,105 in Tshotosho in 32 clubs and 4,505 members in Gutu in 85 health clubs in 16 wards with 12 EHTs. Seven of the EHTs in Gutu were emulating the CHC intervention without financial support or monitoring. The average number of active members in each club between 1995 and 2000 within 265 clubs in Makoni District was 100 active members; between 1999 and 2001, in Gutu District the club sessions averaged at 57 attendees at each meeting and in Tsholotsho the average attendance was 47 members. In Makoni and Gutu, EHTs allowed clubs to expand to meet demand, whereas in Tsholotsho size of club was limited to 60 members.

**Table 14:** Expansion of Community Health Club Intervention in Makoni District. 1995-2000  
(Zimbabwe AHEAD Annual Reports)

Expansion of CHCs	1995	1996	1997	1998	1999	2000	Total
New Wards in Makoni	1	2	1	6	12	1	23
New EHT trained	1	2	0	0	13	2	18
Accumulated membership	615	1,976	2,846	6,561	7,969	11,450	11,450
Number of new clubs p.a.	6	14	10	25	69	141	141
Accumulated no of clubs	6	20	30	55	124	265	265
Average # members per club	102	97	87	149	85	81	100

### 6.1.3. Replication of the Community Health Club Approach by other Agencies

In 1998, the National Integrated Rural Water Supply and Sanitation Project replicated this approach<sup>14</sup> on the strength of the pilot programme in Makoni. The NGO set up the same Community Health Club Model for that project, training Government district field workers in 7 wards of Lupane District, and in all 28 wards of Bikita District with 72 Health Clubs by 1999. A study the following year indicated significant differences in health knowledge, understanding of risk practices, between health club members and a non member control group (Mathew & Mukuwe, 1999) (Section 10.4).

*This (number of clubs) is continually expanding as the project progresses and is proving popular with EHTs who find it a rewarding way of doing their work. The success of health clubs as a method is apparent from their high attendance; the groups are free, open for all to join at any time, and topics are covered and recovered without generating any fall in membership. The popularity of this approach is as much the enjoyment of joining a group, as the desire to obtain health and hygiene knowledge. Sessions are entertaining and offer a break, along with church meetings and beer parties, a distraction from a hard week working in the fields and undertaking household duties (Mathew and Mukuwe, 1999).*

Another NGO also introduced 19 health clubs in 4 districts in 2000, using the same training material and approach<sup>15</sup>. By 2000, there were approximately 170 Community Health Clubs in Bikita District, and the Community Based Management of waterpoints had been extended to the use of water for productive nutrition gardens. Two independent studies were undertaken which highlighted the methods used in

<sup>14</sup> Bikita Integrated Water and Sanitation programme and Lupane Integrated Water and Sanitation programme, (both funded by DFID)

<sup>15</sup> CARE International Rainwater Harvesting Programme, trained by ZimAHEAD

Community Health Clubs: one addressing the factors influencing low cost sanitation in Zimbabwe, using Tsholotsho as a case study (Mpofu, 2001); the other an analysis of rural water supply and sanitation projects, (Chiwandire, 2000), comparing four implementation strategies employed by NGOs in Makoni District. This survey concluded that compared to other intervention strategies, the NGO had ... *the best approach of handling projects since they have proved to be very transparent in their approach to involve stakeholders in planning, implementation and act according to plans, whereas others just provide funding as per request without them planning on how to use the funds with stakeholders* (Chiwandire, 2000).

#### **6.1.4. Selection of Districts for Research**

The districts of Makoni, Gutu and Tsholotsho varied in terms of the length and extent of the implementation in terms of the four stages of the Community Health Club Model (See Fig 8). Only Makoni District has completed all four stages as outlined in the Model. All three districts started with Stage One (1999): a six month to one year period of Health Promotion. In Stage Two, in the year 2000 Tsholotsho had a sanitation and a borehole rehabilitation component, whilst Makoni had funding for sanitation, but no funds for water as there had been substantial construction of family wells within the previous two years<sup>16</sup> (Chiwandire, 2000). Gutu only had funds for upgrading boreholes but no sanitation because this district had amongst the highest sanitation coverage in the country at 53%.

An important indicator of the Community Health Clubs' success is their ability to stimulate demand-led sanitation. As this is one of the key areas of interest in this thesis only Makoni and Tsholotsho Districts, where the effect on community demand for sanitation can be reported in detail. Gutu District could not provide evidence for a full assessment of the potential for Community Health Club activity as demand for sanitation in Gutu had to be ignored; no funds had been allocated for this activity. In addition, although data were collected from Community Health Clubs started by other Agencies in Bikita, Lupane, Chivi, and Zaka Districts, these will not be considered in this thesis due to insufficient background and monitoring during the intervention by the author. A base-line survey of 300 respondents in Gutu and Tsholotsho was conducted (Taburakura, 1998) in all three NGO implemented areas but is not part of this research as indicators were incompatible making a comparative analysis more difficult.

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<sup>16</sup> Mvuramanzi Trust had constructed over 5,000 family wells in Makoni 1994-1997 (Chiwandire, 2000)

## 6.2. MAKONI DISTRICT

### 6.2.1. Background to Makoni District

Makoni District is a Shona speaking district in Manicaland Province, in the East of the country, near the border with Mozambique. It stretches between Macheke and Mutare (See Map. Fig . 12, below) and the administrative centre, Rusape, is a two hour drive on main roads from the capital, Harare. The projected population in the district in 2003 was calculated to be 358,733 (1992 census). This district is approximately 802,800 hectares in size with 35 wards in the district; each ward has a population of approximately 10,000 per ward (2,000 households), with between five and seven villages (See Fig.9. below). Although there should normally be one (Ministry of Health) Environmental Health Technician (EHT) per ward, to supervise water, sanitation and health promotion, due to a shortage of staff in Ministry of Health, there are only 15 EHTs stationed at rural clinics. There are 28 communal and seven resettlement wards where the predominant Shona subsistence farmers live on small holdings. In addition there are two peri-urban areas and five commercial farming areas with large plantations (average 2,000 hectares), mainly of tobacco, cotton and maize. At the time of the intervention (1999-2001), most of these estates belonged to white farmers, but with the Government land redistribution initiative between 2000 and 2005, most farms have been compulsorily acquired and reallocated.

The district receives an average rainfall of 1000-1500 mm per annum, with most communal areas having poor soils and lower rainfall. The district water and sanitation programme was one of the first to be started in the country in 1985, with an Integrated Programme<sup>17</sup> in 1988, with significant donor support (Chiwandire, 2000). With 24% sanitation coverage, Makoni is higher than the national average of 21%. It also has the second highest water coverage in the country with 1,710 communal water points (NAC, 2000), and 5,107 family wells (Chiwandire, 2000).

In order to provide some information on the disease trends in the intervention area in 2004, the author collected Ministry of Health annual reports from a sample of ten wards in Makoni District (Waterkeyn, 2005), giving a nine year spread. As a preliminary research into the effectiveness of Community Health Clubs to affect disease patterns, this information was collected to see if there was any variation in the normal disease pattern in wards where Community Health Clubs were operating. A sample of eight Health Centres, as well as two District Hospitals (Weya and Tanda), were selected, and

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<sup>17</sup> This is a national programme started in some District in 1985 to provide inter-sectoral implementation in Water and sanitation co-ordinated by the District Water and Sanitation Subcommittee within the Rural District Council

their records examined for disease trends in diarrhoea, bilharzia, malaria, skin diseases and eye diseases (See Annex 14).

### 6.2.2. Stage One and Stage Two: Outputs from the intervention (1999-2001)

Makoni was selected as a pilot area for the Community Health Clubs.<sup>18</sup> From March 1999 – September 2000, a total of 3,731 health promotion sessions were held (See Table 13, above), costing an average for two years of 63c (US\$) per beneficiary, for training costs including start-up expenses (Waterkeyn 2003). As there was a reasonable coverage of family wells at the time of programme design, there was no provision of funding for water in this project, and implementation focused only on the construction of VIP (Blair) Latrines. Within two years, 2,400 Ventilated Improved Pit (VIP) latrines were built by club members in this district, which were subsidised at US\$20 per household (Zimbabwe A.H.E.A.D, 2000). The numbers of members expanded rapidly as discussed above (See Table 15) until the CHC Model covered 23 wards, which was most of the communal areas in the district.

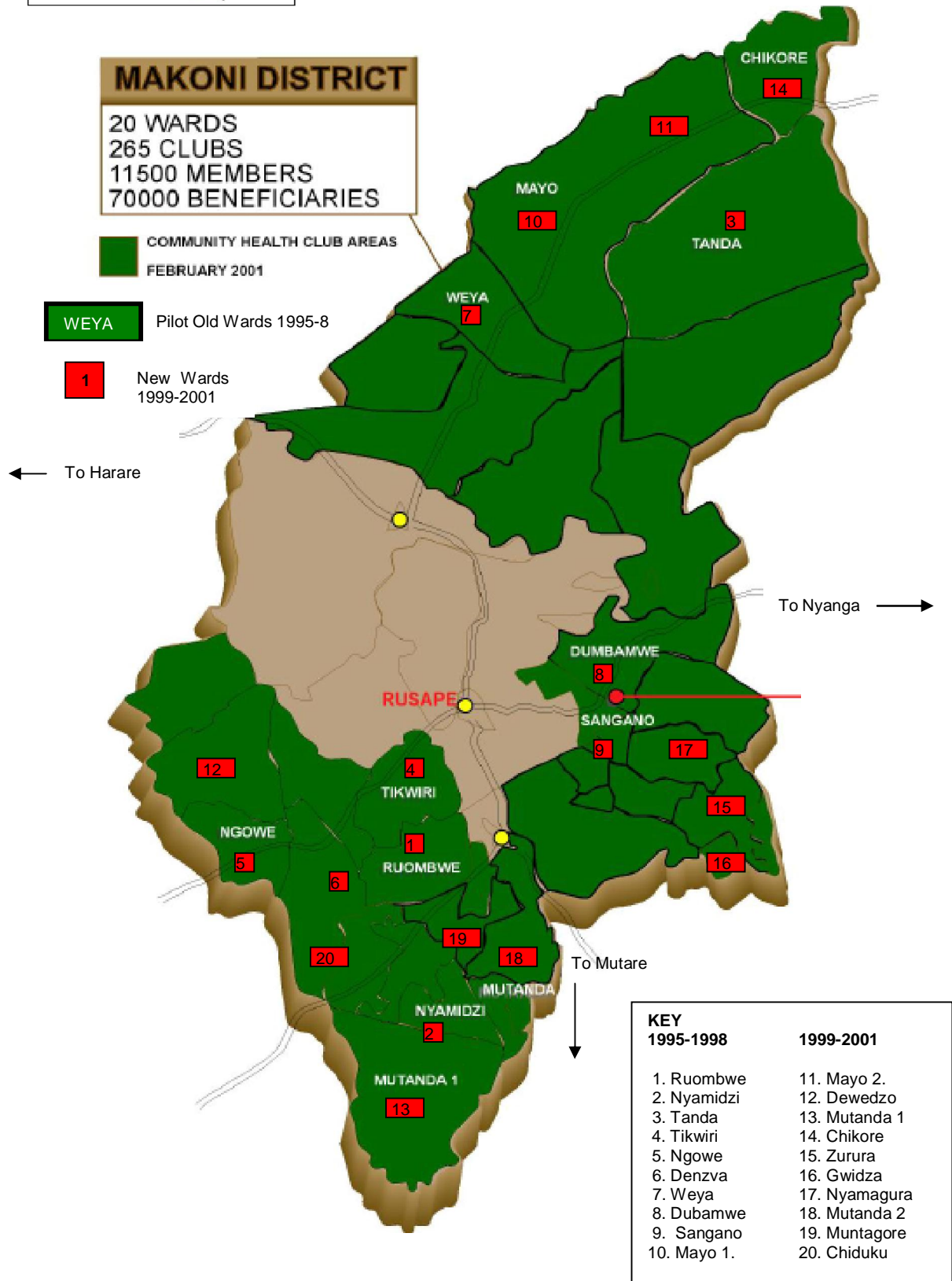
**Table 15:** Comparative Community Health Club statistics for Makoni District and Tsholotsho District, 2000 (Source Zimbabwe AH.E.A.D, 2001)

District	Tsholotsho	Makoni	Total
Population	142,713	358,733	501,446
Wards	19	35	54
Intervention wards	3	21	25
Clubs	32	265	297
Members	2,105	11,450	13,555
Graduated members	68%	36%	52%
Beneficiaries	12,630	68,700	81,330
No. of health education sessions (1999/2000)	832	3,731	4,563
Cost HE per beneficiary	US 35c	US 63c	US 63c
EHTs trained/in district	3/15	14/15	17/30
Family wells	0	839	839
Functioning boreholes	286	676	976
Sanitation coverage	16%	24%	20%
Latrines 1999/2000	1,200	2,400	3,600
Subsidy per latrine	US\$ 15	US\$ 20	US\$17.5

<sup>18</sup> Previously the new Provincial Environmental Health Officer (PEHO) had worked with the author to develop and pre-test the training materials for the PHAST Toolkit at the Domboshawa Training Centre, and was interested to monitor the use of participatory activities in the field trial in Manicaland Province where he had recently been appointed. Makoni District was nominated by him.



**Fig. 10.** Map of Makoni District showing intervention wards



### 6.2.3. Stage Three and Stage Four

After Stage Two (Sanitation) the intervention was formally terminated in February 2001, but Community Health Clubs continued to function using their own resources. The NGO scaled down to district level, maintaining only three staff in Makoni District with an annual budget of US\$30,000 for three years, for monitoring small scale income generating projects (2001), an adult literacy programme (2001), a HIV/AIDS Intervention (2002), and a borehole rehabilitation programme (2003)<sup>19</sup>. By the end of 2003, a Literacy teacher and a Home-based Care Trainer had been trained for each club, and ward co-ordinators had been trained for the 10 old wards where income generation was flourishing sourcing loans from government revolving funds, with no funds from the NGO. In 2002 in the 10 original wards (See Map: Fig 10 below) the income generation in 87 clubs raised an income of US\$ 63,984, almost doubling the investment in them in one year (See Annex 2 and 3). In addition 10 clubs in two wards (Dumbabmwe and Sangano) constructed a Community Training and Market Centre (See Map: Fig 10) for the sale of the extensive health club produce and for further health club training.<sup>20</sup> In 2004, an extensive bee-keeping and herb growing programme<sup>21</sup> involved 10,000 producers and generated substantial income (See Annex 2).

## 6.3. TSHOLOTSO DISTRICT

### 6.3.1. Background to Tsholotsho District

Tsholotsho District is in Matebeleland North Province in southwest Zimbabwe with a population of 142,713, almost entirely settled by Ndebele. It is drought-prone, and regularly in need of food relief. It has the highest rate of chronic under nutrition, with stunting occurring in more than 25% of children under three (NACP, 1998). As farmland is poor, most men are migrant workers in South Africa. The sanitation coverage rate is one of the lowest in the country, between an official estimate of 16% (NAC, 2000) with a more recent study claiming 21% (Mpofu, 2001). Development in Tsholotsho has lagged behind the rest of the country, due to poor flow of funds to district, poor use of existing budget in district, cement shortages, and lack of effective community mobilisation. An integrated programme<sup>22</sup> through MoH achieved 857 household latrines in five years (1990-1994) (Mpofu, 2000), and only one other NGO<sup>23</sup> has a sanitation programme in the district (1992-2001). There are no shallow wells as ground water is

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<sup>19</sup> Funded by Trocare

<sup>20</sup> Funded by New Zealand High Commission (2001-2004), with over 60% costs covered by community

<sup>21</sup> Funded by LEAD, with NGO staff of 40 including 20 ward coordinators and bee promoters in 20 wards

<sup>22</sup> Integrated Rural Water Supply and Sanitation programme (funded by Dutch) 1993 -1995

<sup>23</sup> Plan International co-ordinated by Rural District Council

too deep, and the population relies on 817 deep boreholes, of which 65% are currently estimated to be out of order (NAC, 2004). No statistics were collected from health centres in Tsholotsho as the health promotion intervention had ceased in this area, and it was dangerous to access the district during 2004 due to political unrest.

### **6.3.2. Stage One and Two: Outputs from intervention in Tsholotsho: 1999-2001**

Tsholotsho was selected as an area of intervention due to lack of an Integrated Water and Sanitation Supply Programme<sup>24</sup>, poor water and sanitation coverage and the high level of pump failure on boreholes (DFID, 1997). The Zimbabwe A.H.E.A.D intervention in Tsholotsho was in only 3 wards out of 19, where 32 clubs were formed with 2,105 members with 12,630 beneficiaries (taking each member to have a household of six). In two years, there were a total of 832 health promotion sessions held by 3 trainers, costing an average of US\$3.35 per member or 35c per beneficiary, including start-up costs (Waterkeyn 2001). All targets were met with 150 boreholes rehabilitated and 1,200 latrines built in 18 months, subsidised at US\$15 each (Zimbabwe AHEAD, 2000). An independent evaluation (Muringamza, 2002) identified the lack of exit strategy as a major failing as the demand for sanitation, which had been created could not be met, due non-renewal of funding prompted by socio-economic factors (See Section 4.1.8.). As there is so little literature on the Community Health Club approach his comments as an external assessment have been included.

*The Community Health Clubs have been the biggest achievements towards social issues especially for women and should be seen as a foundation for further and other development issues/projects. Women feel more empowered and regarded as part of the society. CHCs should be promoted to a higher level than at present and council should take advantage of the idea and make other NGOs and government aware as to increases in the income generating projects.’ (Muringamza, 2002)*

### **6.3.3. Stage Three: Income generation**

An attempt was made in 2000 to start income generation within the health clubs with the production of handwashing facilities and cement blocks in all three wards of Sipepa, Jumila and Madlamombe. A larger initiative was started in Jimila ward training 10 women in hand-made paper making, which continued for two years.<sup>25</sup> This area was one of the worst hit by political unrest in 2001 and by subsequent flooding, and many

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<sup>24</sup> This is a national programme started in some District in 1985 to provide inter-sectoral implementation in Water and sanitation co-ordinated by the District Water and Sanitation Subcommittee within the Rural District Council

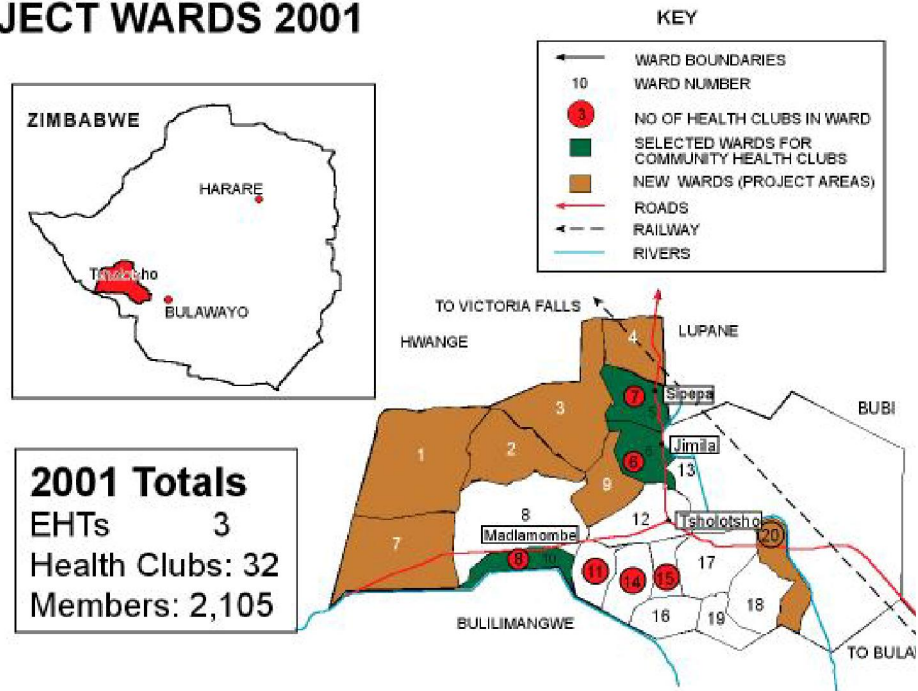
<sup>25</sup> Funded by KICl, in 2000, but abandoned due to political disruption in the area, flooding in the area with many relocated and lack of fuel in the country limiting access to markets



were relocated from the area where CHCs had been operating. With the scaling down of the NGO and lack of fuel in the country no subsequent follow-up has been made to ascertain if CHCs are still functional in Tsholotsho.

**Fig. 11: Map of Tsholotsho District showing CHC intervention wards 1999-2001**

## TSHOLOTSHO DISTRICT PROJECT WARDS 2001



### 6.4. HEALTH PROMOTION TRAINING

#### 6.4. 1. Development of PHAST Training Material

As mentioned in the previous chapter (See Section 4.7.2 and 5.5.1), PHAST training is used in the Community Health Club Approach as it enables the community to analyse their own problems, rather than be passive recipients of a didactic lecture to induce hygiene by coercion (WHO/UNDP, 1997).

Between 1993 and 1995 five sets of illustrated A5 size cards on General Hygiene (20 cards), Water Sources (15 cards), Water Storage (11 cards), Drinking Water (12 cards), and Germ Theory (14 cards), were developed by the author<sup>26</sup> and extensively pre-tested (See Annex 16). These were designed to be used in standard participatory activities such as 'Three Pile Sorting', 'Story with a Gap', 'Open-ended Story' and

<sup>26</sup> Studio A.H.E.A.D developed and pre-tested the training material with the Domboshawa Training Centre, funded by W.H.O.

'Blocking the Route' (Srinivasan,1990, Narayan & Srinivasan, 1994). In 1996, these card sets were incorporated into the National 'Tool Kit' and distributed to all 800 Environmental Health Technicians (EHTs) across the country. The early development of training tool kits to enable participatory practices was a key facilitating factor for PHAST in Zimbabwe (UNDP-World Bank/WSP, 1998). By using a tool kit of participatory games, the trainers became facilitators, and a previously passive audience became active participants. In the following few years the author<sup>27</sup> added 7 more card sets: Malaria (16 cards) , Bilharzia (20 cards), Intestinal Worms (15 cards), Skin Diseases (16 cards), Sanitation (32 cards), and a pack of 55 Nutrition Playing cards was developed by the NGO. Additional sets were in designed in 2000 depicting Social Problems (20 cards) and HIV/AIDS (20 cards) (See Annex16).

#### **6.4.2.Structured Participation**

Although PHAST Training methods were used in other parts of Zimbabwe (See Section.5.5.1.), the Community Health Club intervention grounded the participatory training in a much more structured schedule. This was done, not only by the formation of Community Health Clubs and weekly meetings, but also more importantly by the use of a *membership card* which gave a focus to the health promotion (See 5.5; Fig 6 & 7). An EHT was trained for each ward, (an area comprising 6-8 extended villages), and was expected to facilitate the minimum of 5 health clubs every six months. The EHT training was done in a five-day workshop, which was also attended by the Councillor for each ward to ensure that community leaders also understood the proposed intervention and would mobilise their community. All 30 EHTs who have used the participatory approach in Community Health Clubs have reported that that it enhanced their job satisfaction and enabled them to achieve a high standard of intervention as the training material provided an interest for the community (See 6.1.3). The phrase '*supermarket approach*' was coined to describe the way all health promotion duties could be done at the health club meeting like a 'one-stop shop' rather than the EHT having to arrange with many individuals to carry out his /her duty. They were also reported being clear about their health promotion objectives. All EHTs completed their training of health club members, and many have taken on additional duties not normally organised by EHTs as they have become attached to the clubs above the call of duty.

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<sup>27</sup> Zimbabwe A..E.A.D developed and pre-tested with MoH Makoni District (funded by WaterAid)

**Fig 9. Participatory Activities in Community Health Clubs**



#### **6.4. STAKEHOLDER ANALYSIS**

A stakeholder is defined as someone who may have something to lose or gain and so is affected by the existence of the intervention to some degree, if only marginally. Key stakeholders are those who are critical to the intervention and without whom the intervention may suffer. The detailed roles of stakeholders can be found in Annex 7. These were developed at district level in the Makoni training workshop prior to implementation. Subsequently, a stakeholder analysis (after the method of Reed & Skinner, 1998) was done by the author on each group of stakeholders at four levels, (National, District, Ward and Village), to clarify the dynamics of implementation of the Community Health Club Model. Levels of 'influence' and 'importance' (See definition in Glossary), range from the highest (10) to indicate the key players in the intervention, to the lowest score (1) who are those marginal to the intervention. This analysis is included only as a guideline, as it is not based on the view of other stakeholders given their involvement. It may also be considered questionable whether the author's assignation of a quantitative value to an essentially qualitative issue such as 'influence' and 'importance' is valid.

##### **6.4.1. Key stakeholders at National Level**

At National level the key stakeholders are the National Action Committee (NAC) and its sub-committee, the National Co-ordinating Unit (NCU) which co-ordinates all programmes in the Water and Sanitation Sector, deciding which districts are to be allocated to NGOs and approving programmes to be implemented. In addition, the funding Agency and the implementing NGO are of course, critical and the most influential stakeholders at National level.

#### **6.4.2. Key Stakeholders at District Level**

At District Level the following key government stakeholders are involved:

- District Administrator (DA) who approves the programme;
- Rural District Council (RDC) administers most programmes in all sectors represented by the Chief Executive Officer (CEO);
- Ministry of Health which implements health promotion and sanitation programmes and small scale water programmes, represented by the District Environmental Health Officer (DEHO);
- District Development Fund (DDF), responsible for routine operation and maintenance of all water supplies.

At this level the NGO maintained an office with a Project Officer to work with the RDC, and implement the programme as a partner with MoH and DDF. The successful relationship between these stakeholders at district level is the key factor determining the success of an intervention (DFID, 2001). The involvement of these stakeholders varies considerably in each District. In Makoni District, the NGO was the leading NGO in the district after ten years and was given full administrative authority by the RDC, who were passive partners. The MoH was highly motivated and identified itself entirely with the programme, and continued to operate the Community Health Club Model after direct support had been stopped. In Tsholotsho, the RDC administered the programme, and the MOH was largely passive, except in the field where EHTs implemented the programme supervised directly by RDC. The NGO had a strong identity in the three wards where it worked in the district, taking over many of the duties of the DDF which was largely defunct.

#### **6.4.3. Key Stakeholders at Ward Level**

At Ward level the key controlling gate-keeper is the politically appointed Councillor and influential local leaders include the traditional village elders, including Chiefs, and village headmen, school headmasters and teachers, religious leaders, traditional healers and birth attendants and government extension workers. The local clinic/health centre (of which there is one in every ward) is the key health resource and the levels of service available are important for the programme, as is the dedication of the nurses and the EHT stationed there. In both districts the involvement of key stakeholders was considered exceptionally high (Chiwandire, 2000; Muringamza, 2002). In Makoni District, the Councillors were trained with the EHTs and became key mobilisers contributing to the success of the programme by lending their support. In addition, in Makoni District, from 2002, the NGO has supported semi-voluntary Ward Co-ordinators,

who have been trained in all aspects of the four stages of the CHC Model to oversee and report on all CHC activities on a monthly basis to the NGO.

#### **6.4.4. Key Stakeholders at Village Level**

At village level the key government semi-voluntary stakeholder is the Village Community Worker (VCW) who is known as a '*multi-disciplinary cadre*' in that she helps mobilise communities for programmes from all ministries. The VCW is usually a woman, and has the respect of the community, so that her identification with the programme at an early stage is crucial. She is trained by the EHT to stand in for him/her at health club sessions in case of absence. The VCWs have been a strong motivational aspect of the programme and have enabled CHCs to continue after external financial support has been withdrawn. The key stakeholders are obviously the club members themselves represented by their executive committee. The elected Chairperson, Treasurer, and Secretary in each club is important for the continued viability of each club. The committee is crucial in maintaining the CHCs. The Kraal Head, (the elder of a small hamlet) is a key opinion leader at this level and preferably both he and his wife should be active in the local health club.

#### **6.5. SANITATION ISSUES**

As noted above (See 4.5.3) Zimbabwe has always supported a subsidy for the construction of Ventilated and Improved Pit (VIP) latrines, known in Zimbabwe as Blair Latrines (See Fig. 12. below left). The MoH Policy throughout Zimbabwe was that a household which had lined their pit up to ground level with their own resources, was supplied with three bags of cement, to be used for the slab and the superstructure, including the vent-pipe, and wash hand facility (See Fig. 12). However as the brick superstructure of a standard Government-design Blair Latrine is often far grander than the owner's living accommodation, the rationale of this policy has been questioned. In recognition of this, the Rural District Council in Tsholotsho approved a low-cost design (Fig 13, below right) to encourage communities to supply their own superstructure whilst the subsurface component was subsidised instead (Mpofu, 2001).

**Fig. 13.** Makoni District, (2001)  
*MoH standard Blair latrine model  
with built in hand washing facility*



*Tsholotsho District, (2001)  
Mud and pole Ventilated Latrine with  
free standing hand washing facility*



In this arid area, loose Kalahari sands meant that latrine pits had to be lined to prevent collapse. A cost effective technology was piloted by the NGO, enabling women to make interlocking cement blocks locally (See Fig 14, below), and line their own latrine pit without technical assistance or the cost of a paid builder. The community responded well to this strategy and over 1,200 latrines were built in eighteen months (See Section 6.2.2.2.) the highest number being built in Ruombwe Ward (265), Nyamidzi ward (122), and Dumbamwe (155). Hand washing facilities, instead of being built into the wall of the latrine, were designed as cement tubes with lids, and the production of them became an income generation project within the CHCs (See Fig. 12 and Fig.13 above)

In Makoni District the method was different. The Executive Committee of each Health Club had full responsibility for monitoring latrine construction of the members. They supervised the digging of pits, and the lining of latrines. Each member had to make their own bricks, and buy one bag of cement themselves to line the pit. As soon as twenty members were ready with pits lined to ground level, the NGO would deliver cement to the health club, who would supervise distribution of the three cement bags per family for the slab, and superstructure to be built. All builders' fees were borne by the family. It should be noted that the Ministry of Health supported this community supervision of latrine construction as it minimised monitoring, empowered the community, promoted a sense of ownership and responsibility so that latrines would be maintained, and enabled the sanitation campaign to go to scale. The ready adoption of 'cat sanitation' by Health Club members in this intervention has demonstrated an alternative way to achieve safe sanitation at minimal cost. The concept of sanitation being a progressive 'ladder' rather than a direct jump from no sanitation to a Blair Latrine is new thinking in Zimbabwe, where previously only Blair latrines were counted as a real sanitation (See Section 4.5.3).



**Fig 14: Sanitation in Tsholtosho (2001)**  
Women build latrines themselves  
having made Interlocking  
cement blocks used to line the pit



A 'badza stand' indicating  
cat sanitation, holding a hoe,  
with handwashing facility.



Using the sanitation ladder approach, people progress in stages from open defecation, to cat sanitation as a first stage before construction of a latrine. This was a new approach. The visual aids used in this training illustrate this process of achieving sanitation consciousness (See Annex 16; page 16). Burial of excreta breaks the faecal-oral transmission route just as effectively as a latrine and constitutes the first stage of sanitation consciousness. Without any material subsidy, this practice allows almost 100% safe sanitation without the expense of latrine construction. With time the community understanding of the need for safe sanitation may be expected to lead to latrine construction if resources allow. In the interim, an adequately sanitary environment is maintained at no cost. The *badza* stand is an innovation produced by Health Club members wanting to demonstrate their use of cat sanitation publically. It is a wooden stand, made out of a forked branch which holds a *badza* (a hoe), and often incorporates a plastic container for water and soap for handwashing (See Fig. 15) . This is placed in a prominent position in the compound so that people visiting the bush to defecate can dig a hole and cover their faeces, without the difficulty of looking for a hoe or requesting the use of one from the host.

## **6.6. MONITORING HEALTH PROMOTION**

Within the Ministry of Health there had been minimal supervision of the Environmental Health Technicians (EHTs) on the ground. They are usually stationed at remote clinics with no transport, very few guidelines and no clear structure to their work. The system was first field tested in this intervention to evaluate its potential for measurable self-evaluation and community monitoring. This was done by the triangulation of three main monitoring tools:

- Records kept by each Community Health Club executive committee
- Membership Cards held by each Health Club Member
- Monthly Claim Form submitted to Ministry of Health District office by EHTs

### **6.6.1. Health Club Records**

Planning for sanitation and water implementation was done with the help of a map of the village embroidered on a cotton banner, showing all water and sanitation facilities and other infrastructure. Health Clubs have established executive committees, who monitor all members' attendance of sessions, levels of behaviour change, and members' achievements in terms of the practical recommendations. In some areas the clubs are taking responsibility for the collection of statistics on the health of the local population as well as early warning of cholera outbreaks; in addition in a few wards CHC members have been trained to monitor weight gain of all babies in the area. This is supervised by the local Health Centre and contributes to relieving the pressure on these facilities. Health Clubs, assist Ward Co-ordinators to keep monthly records of people living with HIV/AIDS, orphans, widows, elderly and disabled (See Annex.4) and help arrange community support for those in need. Thus many of the responsibilities previously carried by the EHT and Clinic staff have been devolved to the community (Chiwandire, 2000).

### **6.6.2. The Membership Cards**

The Membership Card (See Fig.6 and 7; Section 5.5) serves three purposes:

- a sense of identity to the health club member
- a means of planning the programme for the members themselves;
- a two-way monitoring between the EHT and the members.

Monitoring is built into this intervention in terms of quantifying attendance at health sessions and training supplied by EHT. For a member to gain a certificate, they have to



have attended all 20 sessions. To verify this, the EHT has to sign the member's card each time a session is attended. The number of dedicated members can be accurately quantified as the number who attend all theory sessions and gain a certificate of full attendance. The number of members who gain this certificate are also recorded by the club secretary. It is surmised that the public recognition and prestige of gaining a certificate has been the main factor influencing members to attend every session, and this has put pressure on the EHT to hold all sessions as planned.

### **6.6.3. The Claim Form**

The club Chairperson is required to verify the number of people attending each session and sign the Claim Form for the EHT to be able to access his/her monthly allowance. A copy of the Claim Form is sent to the MoH, NGO and RDC each month to verify progress achieved, and ensure transparency. Cross-checking can be done by the District Ministry of Health Supervisor or NGO Project Officer carrying out spot-checks at the club to verify that signatures and dates on the Membership Cards correlate with the EHT's Monthly Claim Form. The EHT also has his own card for each club which the CHC chairperson has to sign to show his attendance. This 'mutual monitoring system' greatly empowers the community (Mathew and Mukuwe, 1999), and also tends to make EHTs dedicated to their jobs.

## **6.7. COSTING-OUT HEALTH PROMOTION**

*Public health practitioners have to make hard choices about how to make best use of scarce resources. Interventions of high priority should be those that address a public health problem that has major consequences and both have demonstrated effectiveness against the condition and are cost effective in comparison with other uses of the money (Curtis, 2001).*

In order to encourage donor support for health promotion, this study sought to quantify the amount of health training. Careful monthly records were kept. Expenditure on health promotion training had a separate budget line from other costs for 'hardware' inputs such as latrine construction, so exact figures could be calculated for health promotion apart from other expenditure. The following figures are extracted from NGO project records, monitored by the author, and audited each year. Only Makoni records have been used as in this ward all administration was done by the NGO, whilst in Tsholotsho the RDC was responsible and precise figures are difficult to abstract.

### 6.7.1. Total Project Costs for 2 years:

The total project cost for one year (2000) with 68,700 beneficiaries was US\$120,000, of which 20% was spent on health promotion, 40% on sanitation, 30% on income generation projects and 10% on administration of the NGO. (Zimbabwe A.H.EA.D. Report 2001) (See Table 14) (for comparative cost-effectiveness studies, see Section 2.6.4.)

In the first year, cost per beneficiary is estimated to be US\$0.91 including capital costs of which the major expenditure is the 14 motorcycles, and preliminary training. Without major capital expenditure in the second year, costs diminished to only US\$ 0.35 per beneficiary because they are divided by a far larger membership (See Table 14).

**Table 14.** *Percentage of Total Budget Costs and Cost per Beneficiary, Makoni District, 2000*

Budget Line	US\$ Cost	% of Budget	Beneficiaries		US\$ Cost Beneficiary
			Direct	Indirect**	
Health Promotion	24,395	20%	11,450	68,700	.35
Sanitation	47,709	40%	3,128	18,768	2.54
IG projects	36,878	31%	5,000*	30,000	1.22
NGO Admin.	10,242	9%	10	60	170.7
<b>Total</b>	<b>120,000</b>	<b>100%</b>	<b>19,588</b>	<b>117,528</b>	<b>.97</b>

\* estimated at 10 per IG Group

\*\* indirect beneficiaries are members of family to benefit (taken as 6 per member)

When this budget is calculated as a cost *per trainer*, (including training, equipment, motorbike and running costs) it amounts to only US\$3,144 for two years (See Table 17).

### 6.7.3. Hidden Costs

The figures below (See Table. 17) represent only the marginal cost to the provider (NGO/donor) and do not take into account costs to other stakeholders such as:

- Cost to the Ministry of Health (salaries of 14 EHT's and VCW's).
- Voluntary time given by Health Club Committees, Members, Councillors
- Costs accrued by each household in buying new items recommended
- The cost of developing specific visual aids (See 6.3.1 above)

**Table 17.** Cost of two years of health promotion in Makoni District: March 1999 – March 2001

<b>Makoni District</b>	<b>1999</b>	<b>2000</b>	<b>Total</b>
<b># Wards</b>	20	20	20
<b># EHTs operative</b>	14	15	15
<b># Health Clubs</b>	72	265	265
<b># Club Members</b>	3,856	11,450	11,450
<b># Beneficiaries</b>	23,136	68,700	68,700
<b># Health Sessions</b>	1,448	2,283	3,731

<b>Health Promotion Costs</b>	<b>US\$</b>	<b>US\$</b>	<b>US\$</b>
<b>Total EHT costs</b>	7,990	21,811	29,801
<b>Training costs</b>	4,065	2,179	6,244
<b>M/Bike capital cost</b>	9,210	nil	9,210
<b>CHC running costs</b>	nil	405	405
<b>TOTAL COST</b>	<b>21,265</b>	<b>24,395</b>	<b>45,660</b>

<b>Cost Analysis</b>	<b>US\$</b>	<b>US\$</b>	<b>US \$</b>
<b>Health Ed. cost per Member</b>	5.51	2.13	3.98
<b>Cost per Beneficiary</b>	<b>0.91</b>	<b>0.35</b>	<b>0.66</b>
<b>Cost per Trainer</b>	<b>1,518</b>	<b>1,626</b>	<b>3,044</b>

As the exact financial cost is known to be US\$ 21,265; the number of health promotion sessions are 3,731 and direct beneficiaries (11,450) can be calculated from project records, the cost per beneficiary is calculated by dividing one by the other. Measuring the degree and effectiveness of behaviour change within the health club membership is reported in Chapter 8 and Chapter 9.

## **6.8. INSTITUTIONALISATION OF COMMUNITY HEALTH CLUBS IN MAKONI DISTRICT**

When funding ended in March 2001, the NGO withdrew from the health promotion campaign, handing over assets (such as the 14 motor bikes) to the Ministry of Health. EHTs continued to conduct health sessions particularly in the 10 'new' wards that had only been in operation since 1999. The Ministry of Health supported half the EHT running costs in the District and was assisted with other half by a partner NGO<sup>28</sup>. All of the twenty clubs that were sampled (See Section 9.1) continued to meet regularly, even if formal health sessions run by the Ministry of Health have been completed. Meetings are run by the club Chairperson and Ward Co-ordinator, and focus on health issues in the area, report any public health risks like cholera outbreaks or malaria breeding sites, continue to monitor hygiene practices in the area and organise home-based care for those in need.

In the ten 'old' wards<sup>29</sup> where clubs had been active since 1995, the health promotion stage had covered over 80% of the population and had moved to the next three stages (See Section 5.8.). From 2001 the HIV/AIDS training for home based care (Stage 4) and the rehabilitation of boreholes still involved the Ministry of Health's Environmental

<sup>28</sup> Riders for Health Organisation had originally had been subcontracted by Zimbabwe AHEAD Organisation to manage the fleet of motor bikes and they continued some support when the NGO withdrew.

<sup>29</sup> 'old' clubs or wards refers to those ten wards which were the first to have Community Health Clubs between 1995 and 1999 before the intervention scaled up to the next 11 wards (See Section 6.1)

Health Technicians in the Health Clubs but the adult literacy training and sustainable livelihoods activities (Stage 3) were outside their mandate.

## 6.9. STAGE THREE: SUSTAINABLE LIVELIHOODS

After the formal health promotion intervention ended in 2001 there was no further support of Health Clubs in Tsholotsho by the NGO. However, in Makoni District, numerous (Stage Three) activities in the clubs continued, facilitated and monitored by the NGO. Between 2000 and 2003, members who had graduated<sup>30</sup> attended a PRA<sup>31</sup> workshop for Stage 3, (See Section) which was held in each of the ten old wards, and approximately 500 of the old clubs attended. Members were asked to identify their needs and resources as well as plan activities, ensuring they were sustainable with minimal external support. Each group then raised their own start-up funds, opened a bank account, elected a committee and wrote a constitution outlining basic rules of the operation and maintenance of the group. Once this was done the members were then trained in some type of skill, and appropriate basic equipment (e.g. an oil press) was donated by the NGO. In Ruombwe ward, a Community Training Centre had been established for making handmade paper, oil, soap, peanut butter, and mosquito nets, as well as making wire fencing, wooden and clay bee hives and other equipment such as protective clothing for bee keeping and bee smokers from recycled tin. In Ruombwe Ward<sup>32</sup> over 100 people were involved in a major paper making project which in the year 2000 brought in an income of US\$ 6,540 (Z\$ 50: US\$1) (See Annex 2).

Within the ten wards, 518 income-generating groups involving 5,052 people raised US\$ US\$ 44,304 from sales in the year 2000. Although this was an encouraging effort for the first year, when averaged out as an income per person it amounted to only US\$85 per group although this should be seen in context of the minimal wage, which was less than US\$0.50 per day at that time. Clearly, time is needed to establish a regular flow of raw materials and markets and to increase productivity. The hand made paper raised an average of US\$77 per person, but this was affected by the national fuel shortage, and some paper makers found employment with the buyer in Harare, which undermined the CHC attempts to create local employment (See Annex 2). The most viable income generating activities are those where the raw materials available locally and the market is within the same area, as transport remains the biggest obstacle to trading. Locally sold products such as oil, peanut butter, dried vegetables and herbs, fresh vegetables and honey continue to be produced and sold at a low level, earning pin money for the members, who appear to have benefited from their sales, as

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<sup>30</sup> Those who had successfully completed 20 sessions and had been awarded a certificate in public graduation ceremonies

<sup>31</sup> PRA: Participatory Rural Appraisal, a method of facilitating community to identify and prioritise needs

<sup>32</sup> Number of households in Ruombwe ward was 2,24 in 2004. Each ward has an average of 2,000 households (6 per h/hold)

recounted in the interviews (See Section 9.1.2.6). The market for honey and dried herbs in the capital, is considerable and is beginning to show substantial returns. The main constraint has been the lack of fuel and a collapsing economy in Zimbabwe generally.

In 2001, ten health clubs in Dumbamwe and Sangano Wards decided to build their own new Community Training Centre. This took four years, and by 2005 there was a large hall and skills training block, and market stalls for their produce and accommodation for thirty participants, which generates further income from rental. The Community Health Club members provided all the bricks, thatching grass, sand, and half the cost of labour; with external<sup>33</sup> assistance for the other half of labour costs, cement, and brought items.

It is important to stress that in this four year period there was only minimal support from the NGO at grass root level<sup>34</sup>. Once training was complete, the clubs were fully responsible and were expected to sustain their own activities, although the association with the NGO enabled them to raise funds more effectively. In 2002, over 200 clubs secured start up funds of around US\$ 650 from a Government revolving fund. The NGO also trained ten local co-ordinators from the community for each ward to monitor and encourage income generating groups and other activities, and report back to the NGO once a month. From 2002 onwards no material subsidies have been given by the NGO.

## **6.10. STAGE FOUR: SOCIAL DEVELOPMENT**

Most of the 500 clubs in Makoni District went on to Stage 4: Social Development (See Section 1.1.1) in which three other main activities were initiated.

### **6.10.1. Adult Literacy Training**

It was estimated by the NGO that literacy amongst women was at 60% in Makoni District and there was a strong demand for literacy classes from the club members. In 2002, two adult literacy tutors were trained for each of the ten old wards to run literacy lessons in each of the health clubs in the ward, and they continue to hold classes on a weekly basis in most clubs. Members pay for their own training and no outside assistance is given at present. Each year women take national exams and many have succeeded in learning to read and write whilst others have learnt English and have taken 'O' level exams. It is not known how many people are currently involved in

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<sup>33</sup> New Zealand High Commission through Zimbabwe A.H.E.A.D Organisation

<sup>34</sup> Due to severe lack of funding only two project officers covered the whole district

literacy classes at present but from the interviews it would appear that this activity still continues in many areas.

### **6.10.2. Caring for the vulnerable**

During 2002 and 2003, one person from most clubs was trained in home-based care to monitor HIV/AIDS within their village and train those who needed support. Over 3,000 patients were registered in this way (See Annex. 4) including 376 bed-bound, 555 housebound and 2,121 mobile clients, in a population of 129,100. There were also 7,859 widows, and orphans registered; using an average of six per household, this is estimated to be 36% of the number of households within the ten wards.

### **6.10.3. Nutrition gardens, herbs and bee keeping**

A programme using medicinal herbs for curing opportunistic diseases was started in 2003. All home based carers were trained how to propagate and use herbs and within six months they were using up to 40 varies of medicinal herbs (See Annex 3.). Herbal remedies are appealing as they can be prepared within the home without cost, and have a strong resonance with local Shona culture, which before Western medicine was available, used to rely on homeopathic treatment through traditional healers, using local herbs (listed in Annex 3). Traditional healers are still routinely consulted as an additional resource to the Health Centre, therefore those who were trained in the use of herbs were given respect as herbalists and regularly consulted by neighbours (See Section 9.1.4)

HIV patients were taught to have a well-balanced diet to build up their immune systems. To enable the family to sustain their livelihoods in the event of the death of a breadwinner, families were trained to cultivate organic nutrition and herb gardens using labour-saving drip irrigation systems, and to produce honey for sale and consumption. Within six months there were 4,005 individual nutrition gardens started in eight wards, as well as 131 communal gardens for the benefit of vulnerable families. It was calculated by the ward co-ordinators who kept detailed records (See Annex 3) and reported monthly to the NGO that by November 2004 there were 54,732 herb seedlings of twenty varieties propagated throughout Makoni District. Selling fresh and dried vegetables and herbs had become a major business in 4,136 homes of which 400 were those affected by AIDS. In sixteen wards, 821 people had been trained and sales for the first quarter amounted to US\$3,183<sup>35</sup> for over 4,000 families<sup>36</sup>. Although this is calculated at less than US\$ 1.00 per family there was high expectation of future profits

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<sup>35</sup> ( Z\$54,183,205) In 2000 the RoE was Z\$50 to US\$1; by November 2004 there was approximately Z\$ 17,000 to US\$1.

<sup>36</sup> A loaf of bread at this time cost approximately Z\$ 4,000 (US\$0.23 ) but inflation was over 300%.

and considerable energy was invested despite the minimal financial profit within the first few months. The growing demand for medicinal remedies (See Section 9.1.4) from the herbs caused a rapid expansion of the programme within Makoni District with many enquiries from other areas to train other NGOs in the process. Much of this activity was substantiated in the individual interviews.

By November 2004, 1,015 people had been trained in bee keeping with 195 also trained in business skills. After six months of the programme there were 1,364 members with 6,872 hives, of which 4,075 had been colonised by bees. There were 1,918 people already producing honey and of a total number of 3,205 people living with AIDS (PLWAs), 195 people were selling honey after six months of bee keeping<sup>37</sup>.

A Bee Promoter in every ward assists with the setting up a communal nutrition garden in each village, around a borehole maintained by the health club. This follows the traditional 'chief's plot' cultivated by all villagers to provide for the old, infirm disabled and visitors to the area. In the modern context it will be used to assist families affected by HIV/AIDS.

A programme for *Ambuya* (Grandmother) assistance is now being set up in health clubs, to provide a play school for toddlers alongside the nutrition garden to assist grandmothers, many of whom are caring for many of their deceased children's offspring with minimal resources. In the survey conducted for this study it was found that 21% of the members in Makoni were widows in 2000 (See Section 8.1, Table 21), and the interviews conducted in 2004, resonate with the social problems caused by the high death-rate of breadwinners (See Section 5.4). Lack of income has become the major difficulty in the rural areas and a major determinant of the health status of the family.

#### **6.10.4. Empowerment and employment**

As outlined in Chapter 4, Zimbabwe has had the most challenging five years since Independence in 1980. During this period there has been continual drought, with much of the country having to rely on food aid; hyper-inflation often at over 300%, and 70% unemployment nationwide, due to land redistribution and the collapse of the agricultural sector (See 4.3).

The clubs have provided a platform for many women, who were unknown when they joined, to become key figures in the community, either as members of the executive committees, or as trainers, literacy tutors or home based carers. Some have become

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<sup>37</sup> The figures for nutrition, beekeeping and herbs are taken from the Third Quarterly Report submitted in Nov 2004 by Zimbabwe A..H.E.A.D. to the Funding Agency LEAD (USAID)

district trainers, teaching health club members such skills as making bee hives with clay pots, or sewing bee veils, for the bee keeping projects. One such trainer had previously been marginalized due to his disability. He is a severely handicapped dwarf tinsmith (See Fig.16) but has achieved respect in the community as well supporting his mother through making smokers for bee keepers.

The empowerment of women can be attained through the health clubs on a large scale. The many positions of responsibility provide such opportunities for recognition and service to the community: the twenty ward co-ordinators, twenty ward bee promoters countless chairwomen, secretaries and treasurers of health clubs, the many women trained in literacy, home based care (See Fig. 17), home craft and how to prevent disease through good hygiene, and two women who have become Ward Counsellors as a result of their effective leadership.



**Fig. 16.** Empowering the disabled:  
The District Beekeeper Trainer  
and the District Tinsmith Trainer



**Fig 17.** A home based Carer with one of her clients, who claims her treatment of herbs has given him a new lease of life.

The Community Health Club Model should provide this avenue for personal progress and self efficacy, building capacity in different fields, and building up the human resources to sustain livelihoods, enabling the facilitating agency to exit leaving a competent community in place.



## CHAPTER 7. THE STUDY

This chapter describes the methods used in the study that was undertaken to evaluate this Community Health Club intervention as follows:

**Section 7.1.** introduces the main purpose of the study which was completed in two main stages.

**Section 7.2.** focuses on Stage 1: Quantitative data collection, documenting how the selection of districts, sampling procedure and data analysis was done in Tsholotsho and Makoni Districts in 2001.

**Section 7.3.** focuses on Stage 2: Qualitative data collection, explaining the process of the pair-wise ranking exercise and how the interviews were conducted in Makoni District in 2004.

**Section 7.4.** addresses all the issues of objectivity and bias that arose in the course of both Stage 1 and Stage 2.

**Section 7.5.** explains some of the constraints of the data collection at a time of political instability

**Section 7.6.** highlights the triangulation of different methods of qualitative and quantitative data collection.

## 7.1. THE PURPOSE

The social mechanisms at work within Community Health Clubs are the core interest of this thesis, which seeks a better understanding of human motivation and of how to achieve behaviour change in semi-literate, rural communities, particularly in Africa. Although it was evident that the Community Health Clubs attracted consistently large attendance and field staff reported strong indications of positive behaviour change as a result of this programme, these findings were anecdotal and had not been properly researched.

Therefore this study was conceived as a rigorous evaluation of the Community Health Club Strategy in order to measure its effectiveness in achieving hygiene behaviour change. Its aim is to ascertain whether this approach is capable of achieving a cost-effective hygiene promotion intervention, which will positively enhance family health and the standard of living of the beneficiaries over the long term. It also seeks to understand how best to involve women in health promotion in order to improve their standard of home hygiene.

In view of the paucity of rigorous information on levels of hygiene behaviour change it attempts to meet the criteria for a rigorous study (Loevinsohn, 1990) (See Table 2). In an effort to strengthen these findings we provide quantitative and qualitative data and triangulate in terms of data source as well as data collection methods (Nutbeam, 1998).

This four-year intervention study was completed in two stages, the collection and analysis of *quantitative* data between 2001 to 2002, and the *qualitative* investigation and analysis 2003 to 2005).

## 7.2. STAGE 1: QUANTITATIVE DATA COLLECTION

Our main objective is to ascertain the cost-effectiveness of the intervention and to do this we measure *quantitatively* whether Community Health Club members did in fact:

1. Improve their health knowledge
2. Improve their home hygiene practices
3. Sustain positive behaviour change

Effectiveness was measured in terms of observable indicators of behaviour change rather than a health outcome, given the unreliability of health outcomes for operational evaluation (Cairncross 1990). With substantial evidence in the literature for the impact

of clean water, sanitation and good hygiene practices on diarrhoeal and other diseases (Feachem 1984; Esrey *et al.* 1991; Curtis & Cairncross 2003), proxy indicators of safe practices were used to quantify effectiveness. Costs per club member are converted into costs per beneficiary on the assumption that the health of the entire family of the member (taken as an average of 6 per household) will benefit from the hygiene improvements of the member, particularly if, as the mother, she controls hygiene standards within the home. However costs are also presented per household for comparison where other studies used this measure (See Section 5.7), and costs per trainer have also been calculated to enable scaling up costs to be calculated more easily.

### **7.2.1. Selection of Districts**

It was decided for this study to represent the findings from the two districts of Makoni and Tsholotsho as they represented a strong contrast: a Shona area from the East in a highly favoured area of the country where there had been numerous water and sanitation projects and an Ndebele area from the West of Zimbabwe from one of the most underdeveloped areas, where this was the first project of its kind. An added interest was that the scale of the intervention was at the two extremes: Makoni had 350 Health Clubs with 14 EHTs, whilst Tsholotsho only 32 Health Clubs run by 3 EHTs. As we are interested to find out if there are optimal conditions for this methodology to flourish we felt that these two areas, both implemented by the same organisation, would provide the strongest comparison, without unnecessary confounders. Sampling of respondents was done in three stages as follows.

#### **7.2.1.1. Purposive Sampling: Selection of Health Clubs**

A purposive sample was taken of twenty five clubs from each District. The NGO's register of Health Clubs in both Makoni and Tsholotsho Districts was used as a sampling frame, and every tenth club from 250 clubs in Makoni was chosen whilst making sure that there was at least one club from every ward (See Annex 1). As there are only thirty two Health Clubs in Tsholotsho at least seven were selected from each of the three wards by draw and the balance of four were drawn randomly again to make twenty five.

#### **7.2.1.2. Random Sampling.**

Twenty five clubs were selected which gave a sample of 375 members in each district, with fifteen from each club. Each Community Health Club has a register of all members held by the Chairperson, which was used as the sampling frame. To minimize travel

time and expense, cluster sampling was used at the next stage. Three 'host' members from each club were selected (the 10<sup>th</sup>, 20<sup>th</sup> and 30<sup>th</sup> member on the register) and each visited on a specified day. During the same day four health club neighbours within walking distance of the 'host' were also visited without any warning,.

Although this should have resulted in exactly 375 members per district, in Tsholotsho this was reduced to 354 members : 21 respondents' answers were in a bag that was stolen. In Makoni there were seven extra members making 382 members : the extra respondents had been interviewed to train research assistants.

### **7.2.1.3. Control groups**

The wards for the control groups for each district were purposively selected, with the assistance of the Ministry of Health, to match the intervention area with regard to demography, cultural practices, levels of sanitation and water coverage. The control group had no Health Clubs in the area and was geographically as far removed as possible from the health club operation (typically 30-50km away) to ensure it was largely unaffected by diffusion of health club ideas.

In control areas, no adequate sampling frame existed, as there was no equivalent to the health club register. Therefore, a list of households was made by the headman or councillor in each village and every *n*th member was selected as a respondent. In the case of Tsholotsho where homesteads are often along a road, every *n*th was chosen along the road to ensure random sampling.

### **7.2.2. Spot observation of proxy indicators of hygiene behaviour**

A baseline household survey that had been used in Tsholotsho and Makoni in 1997 and 1998 was adapted for the study. It included a structured questionnaire to ascertain factual demography, and spot observation of observable indicators, as well as questions to ascertain the level of health knowledge of each respondent (See Annex 12). Each home visit took approximately an hour to complete. All compliance indicators were ascertained by informal observation, and nothing was recorded purely on the mere *report* of good practice by the respondent. For example, open faecal disposal was observed by a 'health walk' (around the bush immediately surrounding each home) to check for unburied faeces. The latrine was inspected by a natural request to use this facility. Hand washing was demonstrated by a child in the home, who was asked to assist with hand washing. If a hand washing facility was present it was only recorded as used if there was water inside, and the ground below was damp, or had a pot plant beneath that was obviously well watered (a method of evaluation instigated in

the clubs). Similarly a request for a drink of water would demonstrate whether a ladle was used to draw water and whether the container was well covered. If young children could point out their own cups, it was taken that the family had 'individual cups'. Pot racks were obviously in use if pots were still lying on the pot rack; rubbish pits were deemed 'well managed' if there were signs of regular burning, and there were signs of separation of bio-degradable compost. Thus observed demonstration, preferably by children, or visible evidence on the ground rather than householders' reporting was the method used to ascertain adherence.

### **7.2.3. Semi Structured Interview on Health Knowledge**

Members in Community Health Clubs have been taught the transmission cycles, symptoms and prevention of the following diseases: malaria, bilharzia, intestinal worms, skin diseases (scabies and ring worm) diarrhoea, TB and HIV/AIDS (See membership cards, Fig. 6.). In addition members should know about immunisation by being able to explain their baby's Road to Health card and should also be able to demonstrate making Oral Redhydration Solution (Sugar Salt Solution) correctly. To establish the member's knowledge on disease, the enumerator asked the respondent to elaborate on three aspects of each disease: the transmission cycle, the symptoms and the prevention. If all three aspects could be accurately identified the respondent scored three points (good); if only two aspects could be identified correctly they scored two points (fair) and if only one aspect or no aspects could be identified the score was one (poor) (See Annex 7). As it was decided that a fair knowledge was as dangerous as poor knowledge, only those who had all three aspects correct and had been classified as 'good' were counted as having 'health knowledge' in the findings that were subsequently presented (See Annex 7). It is for this reason that all results for health knowledge are as rigorous as possible. The quality of knowledge should also be considered when comparisons are made to other studies, which may have required only minimal knowledge.

### **7.2.4. Focus Group Discussion**

When the preliminary findings from the quantitative data were found to be quite different in Makoni compared to Tsholotsho District, there was an interest to seek explanations from those who knew their own areas, and discuss possible reasons for the difference. Accordingly, a Focus Group Discussion was held with Ministry of Health staff from both districts to seek explanations for this difference based on various hypotheses that the author put forward (See Annex 8). Other aspects were also discussed and these have been included in the report whenever explanations have been sought for anomalies in the findings (See Section 8.6.)

### 7.2.5. The Schedule for Stage 1 Data Collection

One week was taken to survey each Health Club and the following schedule was followed (See. Table. 16 below). On the 1<sup>st</sup> day of the week, the Health Club was called for a meeting and the objectives of the research explained to allay any fears of political association. The Executive Committee of the Health Club produced the register of health club members, and a random selection of the hosts was made as described above. The committee was also asked to collect the group data of the health club, and this included the full inventory of facilities of all the members of the club in terms of number of latrines constructed, the number of hand washing facilities, pot racks, rubbish pits etc. This data was to be completed by the end of the week, when the club was to meet again for feed back from the research. The enumerator would accompany the first host respondent selected and conduct the first observation that evening. To interview the rest of the cluster the enumerator would camp nearby ready for the four interviews the next day. On the 2<sup>nd</sup> and 3<sup>rd</sup> day the enumerator visited the two other hosts and their four neighbours. On the 5<sup>th</sup> day the enumerator meets the whole club again and gave feed back of general observations to encourage the members. The group statistics were collected from the executive committee and a history of the club was written. In addition during the week the enumerator was asked to take one personal case study of an interesting person to add richness to the data, but this was not randomly sampled and represented exceptional cases. Finally a group pair-wise ranking exercise was done with the whole group as described below (7.3.3).

**Table 18:** Schedule of weekly data collection in each Community Health Club.

Data Type	Respondent	Mon	Tues	Wed	Thur	Fri	Total
Health Walk (Struct. Obs)	Household Head	1	4	5	5		15
Structured Questionnaire	Household Head	1	4	5	5		15
Health Knowledge Interview	Household Head	1	4	5	5		15
Pair Wise Ranking	CHC Members					1	1
Individual Case Study	1 member of CHC					1	1
Group CHC Data	CHC Exe.Committee					1	1
Club History	Chairperson of CHC					1	1

### 7.2.6. Analysis of Data

Quantitative data for individual home surveys were analysed using 2x2 tables (cross tabulation). The chi-square test (and where appropriate Fisher's exact test) was used to calculate significance levels, and p values have been included with all statistical results. The club statistics and club history have not yet been fully analysed but have

been useful for the NGO and Health Clubs, and can be used for longitudinal studies in future. The first round of individual interviews done in 2001 (Stage 1) were lacking sufficient detail and although were interesting anecdotal material, it was felt they were not sufficiently well recorded to be used in this study. As neither the individual interviews nor the Pair Wise Ranking exercises were observed by the researcher (nor recorded for verification) and were lacking standardised format, these outputs from Stage 1 were abandoned, and repeated in 2004 (Stage 2), this time fully supervised by the author and with improved design (See Stage 2. below. Section 7.3.1.).

### 7.3. STAGE 2: QUALITATIVE DATA.

#### 7.3.1. Selection of District

To assess the sustainability of the Community Health Clubs, the 2<sup>nd</sup> stage of the study took place three years later in April 2004. Makoni District was purposefully selected for the collection of the qualitative data, as it is the only one of the three districts to continue to be monitored by the NGO, and to have completed all four stages of the A.H.E.A.D Model (See Section. 5.8. Fig 8.). Gutu and Tsholtosho only completed two years of health promotion and water and sanitation activities, whilst for the past five years Makoni has continued with Stage 3 and 4: income generation and social development projects. These extensive activities would provide the necessary variety of initiatives to find out which of the activities had best served the community and whether the needs of the members had been met within the clubs. To do this the classification of needs was used in Hierarchy of Needs (Maslow, 1954) was used as a basic typology for categorical assessment.

#### 7.3.2. Selection of Health Club

One club was selected randomly from each of seven wards in Makoni District as follows:

**Table 19:** Health Clubs selected randomly for interviews and group evaluation

Date of interview	Ward	Club name	Respondent #	Tape #
26.1.2004	Ruombwe	Rujeko	1 -3	1
27.1.2004	Mutanda 1	Nyadzonya	4 - 6	2
28.1.2004	Nyamidzi	Chinowawa	7 -9	3
30.1.2004	Dumbamwe	Chenisai	10-12	4
2.2.2004	Tikwiri	Zvatakananga	13 - 15	5
3.2.2004	Tanda	Tongogara	16 -18	6
4.2.2004	Weya	Mupfuti	19-20	7

Community Health Club members, were gathered through the NGO's Ward Co-ordinator and the Health Club Chairperson. Attendance varied between 50 –100 at each of the seven sites. Members were asked to participate in helping to evaluate their own activities by two different means: a pair-wise ranking participatory exercise for the whole group, and three individual interviews per health club.

### 7.3.3. Community Pair-wise Ranking Exercise

The pair-wise ranking exercise is a well tried participatory group exercise used in community self-evaluation (Chambers, 1983). A field test was done in the training to ensure that the exercise was appropriate, and two health promotion officers were trained as per standard instructions (Annex. 10.). In groups of approximately ten people, the members discussed ways in which the health club had affected their lives, and wrote ten suggestions on pieces of card. After half an hour of group discussion, all the suggestions were read out to the plenary and discussed before being allocated by the group to one of the following of Maslow's categories (See Table. 18, first column, below)

**Table 20:** Maslow's categories of Needs with local interpretation and symbols assigned

MASLOW'S CATEGORY	THE NEED	LOCAL INTERPRETATION	SYMBOL ASSIGNED
Self Actualisation	to Improve	good mother / better wife; self improvement	A scarf
Aesthetic	to be Smart	home improvement/ improved public self image; being smart	A flower
Cognitive	for Knowledge	learn / understand; being knowledgeable	A piece of paper
Esteem	for Respect	from friends, family, husband; being respected	A bottle top
Belonging	for Common Unity	socialisation, getting together; common unity	A bunch of leaves
Safety	for Security	Good health / club support, income generating projects; sense of security	A rock
Physiological	for Basic Comforts	Water, sanitation, hygiene, basic comforts	A shoe

Each category was explained carefully as interpreted in the second column in Table 20; to enable easier recall of the categories, visual aids were selected from available



material picked up locally. For example to symbolise ‘belongingness’ a bunch of leaves was put on the appropriate square, and a shoe symbolised something that protected one from disease (clean water, good sanitation).

**Fig 18: Matrix for pair wise matrix drawn on the ground**

	1. Scarf	2. Flower	3. Paper	4. Bottle top	5. Stick	6. Bunch of leaves	7. Rock	8. Shoe
1. Scarf								
2. Flower								
3. Paper								
4. Bottle top								
5. Stick								
6. Leaves								
7. Rock								
8. Shoe								

A large (3x 3 metre) matrix with seven squares on each side, was drawn on the ground and all the participants arranged themselves around the edges. The symbols were placed in a line, one in each square along the x axis and y axis, (See Fig18, above). Squares that compared the same symbol were blocked out, by drawing a cross.

The members were carefully tested on their interpretation of each symbol to ensure everyone had understood the categories. The facilitator then compared each of the pair of ‘Needs’ in turn, starting at the top (Square 1 on the x axis : Square 1. on the y axis), and moving down each row. He asked the participants to shout out together as a group which of each pair had been more important to them in the Health Clubs. (e.g. Scarf compared to Flower: Self Improvement compared to Being Smart). The symbol which was selected most loudly by the group was noted by placing the appropriate symbol in the square. If there was doubt as to which was the most popular of the pair, a debate was encouraged between participants and then a vote was taken by show of hands. When all the pairs had been compared, the group was then asked to confirm if they were in agreement with the results. A member of the community then counted the total of each symbol, and they were ranked according to popularity. A copy of the matrix was made on paper. These were compiled and assessed (Annex 10).

The ten pair-wise exercises were done by the same two facilitators to ensure consistency of interpretation. Throughout Shona was the language used both in the exercise as well as the groups' handwritten suggestions. The latter were collected and translated into English and the results of the matrix were also collated in English.

#### **7.3.4. Individual interviews**

Whilst the Pair-wise Ranking Activity continued, three people from each club were purposively selected. In each club, members were divided into three age groups: those under forty, those in their forties and fifties, and those of sixty and above. Each age group numbered themselves and the medium number was chosen. Although random sampling was attempted by this method, the public selection of only three respondents from each club proved difficult as members themselves interfered with the process (See Section 7.4.).

The twenty in-depth interviews were done to investigate the clubs' sustainability and help verify claims of activities that were ongoing and to understand the attraction of the Health Clubs, and why members had stayed with them for so long (between 5-9 years).

The main interest of the questionnaire was to:

1. Investigate the group dynamics that take place in the Community Health Clubs.
2. Analyse the socio-psychological appeal of the Community Health Clubs
3. To assess the sustainability of the Community Health Clubs

Learning from the mistakes of the 1<sup>st</sup> stage of data collection, the interviews in 2004 were standardised to a structured questionnaire (See Annex 12) although it was decided to allow open ended responses and to provide prompts to encourage a natural conversation. The interviews were conducted by the project staff: Programme Co-ordinator and Project Officer. One person interviewed the respondent and tape recorded the interview. The other interpreted simultaneously into English in the background. The researcher was present at all interviews (except three), acting as a silent observer, but probing for clarification when necessary.

Respondents were interviewed on their own, at a distance from the group, each interview taking twenty to forty minutes. The interviews were all conducted in Shona, with simultaneous translation into English, and tape recorded in *situ*. The standard of the recording was acceptable although in two cases half an interview was lost due to technical mistakes. The interviews were fully transcribed by the researcher into English and the original tape recordings are available for verification. (See Annex 12. for the questionnaire).

## **7.4. OBJECTIVITY AND POSSIBLE SOURCES OF BIAS**

### **7.4.1. Author's Objectivity**

The need to maintain objectivity has been a constant challenge. As the reader will have surmised from the above, the author has been the main progenitor of this initiative and therefore is in a weak position to produce an unbiased assessment, given her involvement from the initial concept to the present. However, it is usual in the 'true' sciences for those who research an issue to have personal theories that they hope to prove, and it is accepted that this personal bias can be controlled by clear hypotheses which must stand the test of empirical experimentation. This study should be seen as a *social* experiment which has been brewing for ten years, carefully monitored throughout this time by the author. The reader is therefore asked to have forbearance if there are instances where the text lapses into a less impartial note due to the enthusiasm for the findings, although every effort has been made to avoid this by presenting statistical findings and direct quotations whilst minimising conjecture.

Analysis of data may be affected by the fact that as the initiator of the project, it would be expected that the author would try to identify positive aspects and bias interpretation. To guard against personal bias in selection of quotations, there has been no editing of any of the answers, which are quoted in full for each question (See Annex 13). All quotes can be checked and understood in context with other answers, and verification of categories has been made clearer by the coding which has been included with keys. The interviews should speak for themselves, which is the main strength of using a qualitative research method. All tape recordings of interviews, statistical data and project records are available for verification.

### **7.4.2. Sampling bias**

Although the sampling for the qualitative data is dealt with in detail in Section 7.3, it should be mentioned that the selection of only three respondents from each of the seven clubs was difficult as members themselves interfered with the selection process. In each club, members were divided into three age groups: those under 40, those in their 40's and 50's, and those of 60 and above. Each group numbered themselves and the medium number was chosen. When making selections for the interviews at the club gatherings. It soon became clear that the people who had been originally selected randomly within three age brackets, did not always come forward for the interview as planned. There was a high proportion of office bearers, who obviously felt it was their prerogative to speak for the club, particularly as only a few people had been selected.

Although this presented a problem in terms of random selection, these members were accepted as key informants, given that they could give more informed answers. An adjustment to balance this 'community selection' was made by ensuring that at least half the respondents were ordinary members without a leadership role in their club.

#### **7.4.3. Gender bias**

As regards gender bias in the sampling of respondents, it may be asked why only one out of the twenty respondents in the interviews were male. However this seemed representative of gender balance in the clubs, as in most clubs at least 80% of members are women, so they were in fact, the main target group in the research.

Although female interviewers would have been more suitable in that they would have had easier access to interviewing women, in Stage 1, all interviewers were male because it was unsafe for women to camp out in the villages due to political insecurity in 2001.

#### **7.4.4. Translations**

The recordings were translated verbatim simultaneously, and were successful except in two cases where technical hitches occurred and half the interview was lost. The simultaneous translation appeared to be accurate as in most cases the interviewer was translated by a second person. However, it would seem that some phrases were repeatedly used, indicating that the translator tended to speak in his/her own customary way using sophisticated vocabulary such as 'mentally stimulated'. Although there has been no back translation to check for accuracy, all transcripts and tapes are available for spot verification. One of the main problems was that in each interview, some of the questions were missed out in error. On average there were only sixteen responses for each question asked as in most cases four respondents were not given the question.

#### **7.4.5. Interviewer bias**

The quantitative field research in Stage 1, was conducted by impartial research assistants who had not been previously associated with the programme. However in Stage 2, due to the lack of dedicated funding for this research, the NGO contributed its own project officers as interviewers. The advantage of this was that access to the community was easily gained without special permission, which otherwise would have been denied due to political suspicion of foreigners in Zimbabwe at the time of research (January 2004). All interviews and translations were done by the senior project staff of the NGO, who are already well known in the area and this may have introduced interviewer bias. However, with a team of three people monitoring all responses, it is to

be hoped that any interviewer or translation bias has been minimised by cross checking.

As a stranger to the area, the author may have biased the answers of those interviewed who may be trying to impress a foreigner, in order to attract more inputs (as was noted in the requests at the end of the interview). Culturally, there is often a problem with self-reporting as there is a tendency of politeness in Shona society to please to strangers at the expense of objective fact (See 3.1). However given the above reservations, the interviews seem to have been accurate enough to produce a consistent pattern formed by respondents. The author was present as an observer in all but three interviews, to challenge any exaggerations or probe for clarity.

Pair-wise Ranking community participatory evaluation is a fairly experimental approach and may be prone to interviewer bias as it is fairly easy for the facilitator to lead the crowd in a pre-emptive direction, in terms of categorising the suggestions. It may be that the first stage of the exercise when community suggestions are collected without prior explanation from the facilitator, is a more accurate method of analysing data than ranking the suggestions through the matrix, which is prone to manipulation. As it is neither strictly quantitative, nor qualitative it may have the strengths and weaknesses of both approaches. We cannot say that we have measured the Needs of people as the results are merely their *perceived* needs rather than the *real* needs. However, in sociological terms it does provide pointers as to what is important in the community, and whether these perceived needs have been met to some extent by the activities in the Health Clubs. It is useful in terms of triangulation for adding richness to the data collected in the interviews. Whilst it is not strong evidence on its own, it is nonetheless, a group confirmation of many of the individual comments that were recorded in the interviews.

## **7.5. CONSTRAINTS IN DATA COLLECTION**

The collection of data in 2001 coincided with massive social insecurity in the rural areas of Zimbabwe and political intimidation. The facilitators found it difficult to move in some areas, particularly in the control areas where the intervention was unknown and they were suspected of being covert opposition supporters. Much time was spent getting official travel permission to operate. In addition husbands who are not used to Health Club activities are not disposed to allow unknown people to interview their wives, whereas in Health Club areas there is a general understanding that any activities associated with the Health Club are welcomed.

Transport was initially a constraint until the enumerators were supplied with bicycles. They also found it difficult to stay with the 'hosts' on many occasions, and so were

provided with camping equipment to allow them to be independent. Although initially there were four enumerators this was reduced to two due to financial constraints. There was also a chronic fuel shortage for most of the year, making public transport unreliable.

The control group consisted of a total of 113 respondents in Makoni and 59 in Tsholotsho. It had been planned to have 150 in each area, but as the field work was one month before elections it was impossible to continue, owing to widespread intimidation in both areas. It was also clear that the control groups had started to show a strong pattern and additional respondents may not have added enough to justify the risk to the enumerators.

## **7.6. TRIANGULATION**

The data have been collected by using a range of methods: household observation, individual interviews, group self evaluation, project records and clinic statistics. It is to be hoped that triangulation will provide a balanced picture of the intervention with the qualitative descriptive accounts of the interviews enriching the quantitative results of in the homes.

## **CHAPTER 8: QUANTITATIVE RESULTS**

This Chapter presents the quantitative findings from the Household Survey in Makoni and Tsholotsho Districts that was carried out between September 2000 and March 2001.

**Section 8.1.** begins with a description of the respondents comparing the demography of 736 Community Health Club (CHC) members with 172 respondents from the control groups in both Makoni and Tsholotsho Districts.

**Section 8.2.** presents the findings of levels of good health knowledge on nine different topics, six of which are preventable diseases. Comparison is made (with highly significant p values) of the CHC Members with the control groups in both Tsholotsho and Makoni Districts

**Section 8.3.** presents the findings (with highly significant p values) from the spot observations in the homesteads visited, comparing CHC homesteads to control group's homesteads in terms of the general appearance, the cleanliness of the yards, whether there were rubbish pits and pot racks and levels of maintenance, as well as whether there was a nutrition garden grown by the family. Types of water supply used by each family and what kind of sanitation was practised were also noted.

**Section 8.4.** outlines the hand washing practises of CHC Members in both districts compared to the control group: the method used, whether there was a hand washing facility in the home and whether soap was used.

**Section 8.5.** describes kitchen hygiene of CHC members in both districts based on observations of practises including how drinking water is taken and stored, whether a ladle is used and habits related to eating, such as sharing food in a communal dish.

**Section 8.6.** summarizes the above quantitative findings in Makoni and Tsholotsho district, surmising why there is such a variation between the two areas.

## 8.1. DEMOGRAPHY OF THE CONTROL AND COMMUNITY HEALTH CLUB RESPONDENTS

The characteristics of the CHC members and the control groups sampled in both districts are shown in Table 21. In Tsholotsho 22% more women than men were interviewed in the CHC group compared to the control and 10% more women than men in Makoni. The age range of women was similar with controls and CHCs in both districts having an average age of between 43 and 47 years old. In terms of marriage status the control and CHCs were well matched in both districts, with less than 5% difference. The proportion of widows in Tsholotsho is similar in both groups but there was a marked difference in Makoni where 21% of those interviewed in CHCs were widowed whilst there were only 6% widows in the control. In Tsholotsho 22% more respondents in the Health Clubs were from female headed families, whilst in Makoni there was almost the same proportion in both groups. In Makoni 16% more Health Club members were joint breadwinners, whilst in Tsholotsho there were only 7% more. Only 4% of the Health Club members relied totally on their husbands wages, whereas the control had 19%, and in Tsholotsho there was only 9% more in the Health Clubs. Members and controls are well matched in each district in terms of religion but interestingly there was almost twice the proportion of conventional Christians in Makoni (71:67%) than in Tsholotsho (44:34%). There are 46% Apostolic in both groups in Tsholotsho and a close match 25%:23% in Makoni. Educational level for both groups in both districts is almost exactly matched with 40:42% in Tsholotsho and 34:30% in Makoni for primary schooling. However whilst 12% of respondents from both control and CHCs in Tsholotsho have been to primary school, in Makoni there are 12% more control respondents with secondary schooling and this may have confounded findings slightly.

The sample shows that in Tsholotsho average income of the CHC sample and control groups was similar at US\$298 and US\$ 225 per annum. In Makoni income was higher in the CHCs at US\$378, but in the control in Makoni it is higher still at US\$602 per annum. In summary, the control is fairly well matched in Tsholotsho but in the Makoni control the secondary educational level, the income and the number of male-only breadwinners are much higher than the CHC sample. This is unfortunate as these different levels may affect findings and show the Makoni members to be less well-matched with the control group than those of Tsholotsho (Table 21). On the other hand it may suggest that the clubs are successfully recruiting from the poorer and less educated members of rural society, who stand to benefit most from membership.



**Table 21: Samples of Health Club members and control groups in Tsholotsho and Makoni Districts, (2000) comparing main demographic differences**

Survey 2000	TSHOLOTSHO		MAKONI	
	Members n=354	Control n=59	Members n=382	Control n=113
Women respondents	97	75	87	77
Average age of women	43	42	46	47
Respondents married	78	75	76	80
Respondents widowed	14	20	21	6
Female headed h/holds	76	54	55	53
H/hold size 4-6 members	34	24	36	26
Joint breadwinners	15	8	67	51
Male breadwinners only	38	29	4	19
Conventional Christians	44	34	71	67
Apostolic Christians	46	46	25	23
Completed primary school (male & female)	40	42	34	30
Primary & secondary school (male & female)	12	12	23	35
Average cash Income p.a.	US\$298	US\$225	US\$378	US\$602

RoE: US\$ 35: Z\$1 (2000)

## 8.2. KNOWLEDGE OF PREVENTABLE DISEASES

During a six month period of training it is expected that members become well informed on the symptoms, transmission, cure and prevention of locally common preventable diseases. The following topics were covered: Oral Rehydration Solution (ORS), Child care, diarrhoea, malaria, bilharzia, worms, skin diseases and HIV/AIDS. During the survey, respondents were asked to describe their understanding using pictures that had been used during the training as prompt cards. Whilst in Makoni there were 38% who had completed the course, in Tsholotsho 68% had done more than twenty sessions (See Table 22). It is noteworthy that 65% in Tsholotsho and 30% in Makoni had finished their training more than a year before the survey. In Tsholotsho there were 9% and in Makoni 43% of the CHC members who had finished between six months and a year prior to the survey. There were 26% in Tsholotsho and 27% in Makoni who were still in the process of training and therefore may have not covered the topics on which they were being tested in the survey. The full course of training consisted of twenty sessions but the average number of sessions attended by Health Clubs members

interviewed was fifteen in Makoni and seventeen in Tsholotsho. Topics will not have been done in the same order in every club, and it was not known which topics each respondent had done. This omission in the survey questions means that if there is a low level of knowledge it cannot be ascertained if this may have been due to lack of attendance of the topic rather than forgetfulness.

As described in Section 7.2.3. the method of ascertaining level of knowledge was rated according to three aspects: Those who knew not only the symptoms but also transmission, and the prevention of each disease were rated as 'good' for that disease. Those who had partial knowledge were rated as fair if they had two aspects correct, and poor if they only had one aspect or less information on that disease. For child care they were asked to explain the immunisation on the 'Road to Health' Cards given to mothers of babies, and to measure knowledge of Oral Rehydration Solution (SSS) the respondent was asked to physically demonstrate how to make ORS. However of the respondents that had covered 20 sessions or more, 79% had full knowledge of the causes, prevention and cure of diarrhoea, 16% had part knowledge and 5% had poor knowledge in Makoni and Tsholotsho.

**Table 22:** Comparative time lapse since CHC training and number of health education (HE) sessions in Makoni and Tsholotsho Districts, (1999-2001).

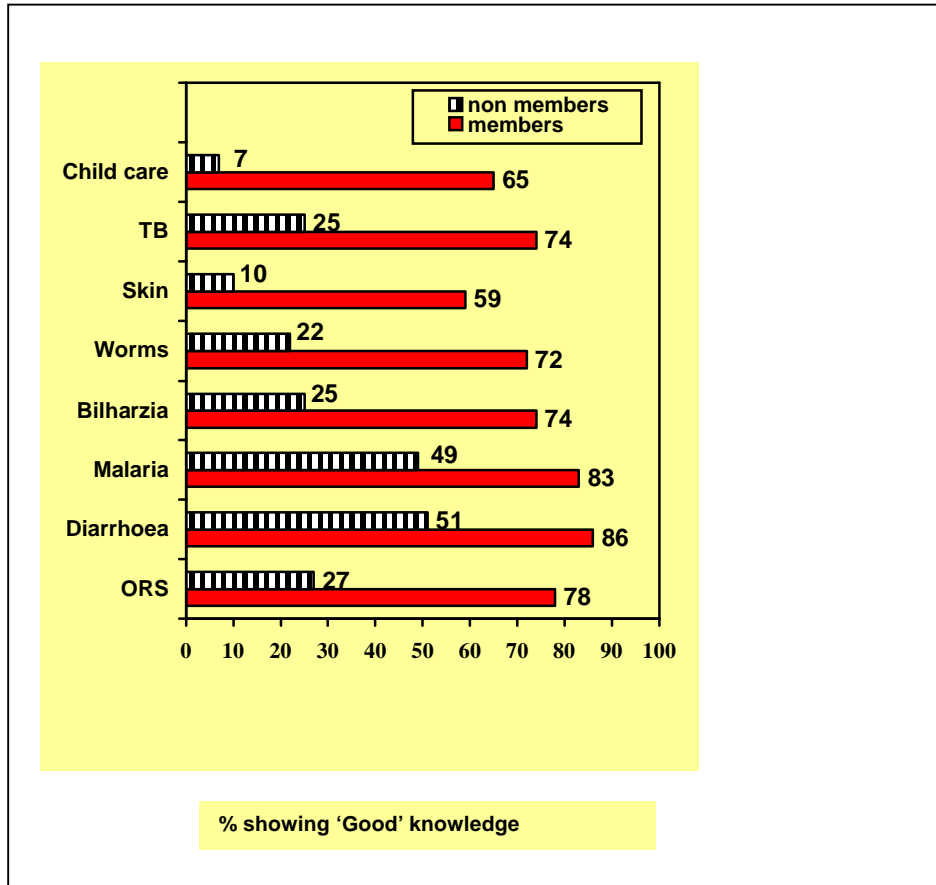
Survey 2000	TSHOLOTSHO	MAKONI
	% Members n=354	% Members n=382
More than 20 HE sessions	68	36
HE finished 6mths – 1yr	9	43
HE finished > 1 yr	65	30
HE not yet finished	26	27
<b>TOTAL</b>	<b>100</b>	<b>100</b>

### 8.2.1. Findings on levels of Health Knowledge

**Table 23:** Comparative % 'good' health knowledge between Health Club members and control in Tsholotsho and Makoni District, 2000

	% MAKONI			% TSHOLOTSHO			% MAKONI & TSHOLOTSHO MEAN			
	CHC		p-values	CHC		p-values	% CHC	% Control	% Difference	p-values
	n=382	n=113		n=354	n=59					
<b>ORS</b>	67	81	n.s.	78	27	<0.0001	73	54	19	<0.0001
<b>Diarrhoea</b>	72	76	0.05	86	51	<0.0001	79	64	15	<0.0001
<b>Malaria</b>	62	47	0.005	83	49	<0.0001	72	48	24	<0.0001
<b>Bilharzia</b>	44	42	n.s.	74	25	<0.0001	59	34	25	<0.0001
<b>Worms</b>	28	26	n.s.	72	22	<0.0001	56	24	32	<0.0001
<b>Skin Dis.</b>	52	35	0.002	59	10	<0.0001	56	22	34	<0.0001
<b>HIV/AIDS</b>	47	35	0.036	74	25	<0.0001	61	30	31	<0.0001
<b>TB</b>	28	19	n.s.	65	7	<0.0001	47	13	34	<0.0001
<b>Child care</b>	64	29	<0.0001	70	19	<0.0001	67	24	43	<0.0001
<b>TOTAL MEAN</b>	<b>52</b>	<b>43</b>		<b>73</b>	<b>26</b>		<b>63</b>	<b>35</b>	<b>28</b>	

**Fig. 19: Comparative Levels of % of Good Health Knowledge in Health Club members and control group in Tsholotsho District, (2000).**



In Tsholotsho the CHC group show significantly higher levels of knowledge than the control group in all nine topics. The difference between the two groups is also *consistently* high, varying from 34% for Malaria (83:49), to 58% for Tuberculosis, with the mean for all nine topics being a 47% difference between groups.

In Makoni there is less outstanding indication of the impact of the health sessions; only child care showed a *highly* significant result, with a difference of 35% between the control group and the CHCs. Four other diseases, skin diseases (17%), malaria (15%) and knowledge of HIV/AIDS (12%) and TB (9%) show significant differences. Bilharzia and worms are on the margin of significance and knowledge of how to make ORS and treat diarrhoea are actually higher in the control group.

Taking the two districts together there is a range from 9% mean improvement of health knowledge in Makoni, to 47% in Tsholotsho indicating that the Health Clubs had improved knowledge in this respect in both districts, although to a much lesser degree in Makoni District. As shown in Table 23 when a mean of both districts is taken, the difference between the Health Club members (with an average of sixteen health sessions over six months) as opposed to the control group (with no health sessions) in level of health knowledge is highly significant ( $p < 0.0001$ ) in all nine topics.

### **8.3. FACILITIES OBSERVED AT HOMESTEADS**

#### **8.3.1. General Appearance of Homesteads**

It is often possible to identify a Community Health Club home from a distance by a generally orderly compound: a well-maintained latrine, wash-hand facility, pot rack, washing line, fruit trees and fenced nutrition and herb garden. However, this anecdotal type of observation is not accurate enough to establish the difference between Health Club members and non-members. The following data has been carefully sampled to enable the prevalence of these facilities to be more accurately quantified.

#### **8.3.2. Swept yards**

In many homesteads, some attempt had been made to sweep the yards, but there were observable differences as to where the sweepings had been dumped (See Table 24, below). On average more Health Club members in Makoni had swept yards but only slightly so, the difference being only 7% ( $p=0.2$ ). This lack of impact could be attributed to the fact that yard sweeping is normally practised in both Health Club and non Health Club households. In Tsholotsho, by contrast, the difference between the two groups was highly significant at 24% ( $p < 0.0001$ ).

#### **8.3.3. Rubbish Pits**

The use of rubbish pits for garbage disposal was high in both areas with a combined mean of 78% for the Health Club members in both areas, compared to 53% for the controls. With most other indicators, Tsholotsho had much higher prevalence than Makoni but in this case the general level of the control and CHCs was lower in Tsholotsho, although the difference *between* them is still highly significant at 37%, ( $p < 0.0001$ ), showing that this is a new practice to the area. By contrast even the controls in Makoni were high at 82%, and the CHCs were only 12% higher ( $p = 0.0013$ ) showing that the practice is already established throughout the district (See Table 24, below). The *management* of the rubbish pit is an important factor to consider as this

shows the understanding of the rationale behind the practice of removing garbage from the compound. In Tsholotsho this is 30% higher in the CHCs ( $p < 0.0001$ ) and 26% in Makoni ( $p = 0.238$ ), where although the control group do have rubbish pits, they do not separate their rubbish as they do in the Health Clubs, into bio-degradable garbage for making compost and the rest which is burnt regularly.

### 8.3.4. Pot Racks

The construction of a wooden pot rack made with sticks in the yard for drying utensils in the sun after washing, has long been a recommendation of the Ministry of Health and they are common in most districts of Zimbabwe. The difference in prevalence between CHC members and the control group in Makoni is 12% ( $p=0.0002$ ), whilst in Tsholotsho there was a highly significant 37% (78% versus 41%), which we surmise again reflects the lack of exposure that Tsholotsho has had in the past to standard health promotion messages which were more regularly promoted in Makoni ( $p < 0.0001$ ). (See Table 24, below)

**Table 24:** Prevalence of yard hygiene indicators in Makoni and Tsholotsho District, (2000)

	Tsholotsho				Makoni			
	% CHC	% control	Chi-square	p	%	%	C s	p
Indicator	n	n=59			n	n		
Pot Rack	7	41	33.53	<.0001	9	81	0.6	<.0001
Rubbish Pit	6	25	29.64	<.0001	9	81	0.7	<.0001
Pot Rack and Rubbish Pit	6	29	18.53	<.0001	5	25	2.2	<.0001

### 8.3.5. Nutrition Gardens and fencing

The difference between the farming areas of Makoni, and the predominantly cattle herding area of Tsholotsho is shown up by the difference in the number of respondents with vegetable gardens. Whilst 89% in Makoni (combining members and control) had gardens, in Tsholotsho the average was only 40%, with 60% in the Health Clubs as opposed to 19% in the control group having gardens ( $p < 0.0001$ ).

**Table 25:** Prevalence of nutrition gardens in Makoni and Tsholotsho District, (2000)

Observed	Tsholotsho				Makoni			
	% m	% control	Chi-square	p	%	%	C s	p
	n	n=59			n	n		
Nutrition	60	19	32.99	<.0001	99	80	6.3	<.0001
Wire	4	0	1.30	<.0001	10	20	0.1	<.0001
Wood	59	19	31.55	<.0001	39	13	1.7	<.0001

Fencing is important as it is usually difficult to protect a garden from livestock without some type of fencing and the cost of wire has been a major constraint. In Tsholotsho which is heavily forested, fencing is commonly made by using thick tree trunks side by side as a solid barrier. This is a major environmental threat as not only are trunks rather than branches used but these have to be replaced every few years due to termite destruction.

### 8.3.6. Demand for Sanitation

One of the main objectives of the CHC intervention was to create a demand for Latrines. This was high, with almost all members supporting the concept of safe sanitation and wanting to construct latrines, the only constraint being lack of financial support. In 18 months (mid 1999 to end of 2000) 1,200 club members in Tsholotsho had built latrines. The design used was an adaptation of the standard Blair (VIP) design promoted by the Ministry of Health (See Section 6.5. Fig 12), using interlocking blocks for lining the pit (See Fig.14) and a traditional superstructure (mud and pole) and vent pipe made of local materials. This enabled women to construct latrines more cheaply because they could line the pits without relying on husbands or paying builders, and were able to construct the superstructure as it was the same building material as their own home (See Section 6.5. Fig13).

**Table 26:** Prevalence sanitation indicators in Makoni and Tsholotsho Districts, (2000)

O H I F e C s F I	TSHOLOTSHO				MAKONI			
	% C n	% control n=59	Chi-square	p	% n	% n	C	p
	96	2	396.75	<	88	59	4	<
	57	0	63.63	<	14	0	1	<
				<			8	0

Although Government statistics estimate 16% sanitation coverage in Tsholotsho (NAC, 2000), this research shows the control area had only 2%. The most significant statistic in this study is that in Health Club areas in Tsholotsho an environment free from adult faeces was achieved: 43% constructed latrines with the balance of 57% practising cat

sanitation ( $p < 0.0001$ ) (See Table 26). The health walk also showed that all but 96% of CHC members had a faecal-free environment whereas this was only the case in only 2% of the control group ( $p < 0.0001$ ). Virtually all of the latrines had been built in the last year and all except 2% were clean and used ( $p = < 0.0001$ ). There were still difficulties with clearing toddlers faeces as only 4% of CHCs were without children's faeces in the yard, whilst this was common in all the controls without exception ( $p = 0.097$ ).

In Makoni District, government records show sanitation coverage at 24% (NAC, 2000), whereas our survey shows the control had already achieved 57% coverage. The intervention project records show that 2,400 standard Blair latrines were built within two years (AHEAD 2000), and the CHC survey found that 38% of those owned by CHC members the 74% latrines had been built within the last year ( $p = < 0.0001$ ), and 38% were clean and used. This was 7% more than in the control area ( $p = 0.17$ ). A faecal free environment was found in 59% of the control area rising to 88% in CHC areas ( $p = < 0.0001$ ), with 14% of the Health Club members practising cat sanitation, whilst none in the control area used this method ( $p = < 0.0001$ ). Children's faeces were observed in the yard of 23% of the control group and 16% in the Health Club areas, showing a 7% improvement as a result of CHC activities. This is less than levels of prevalence of other indicators in this study but still on a par with levels of sanitation measured in other studies<sup>38</sup>.

### 8.3.7. Water supply

Zimbabwe claims to have provided protected water to rural communities to 99.7% (NAC, 2000. See 4.2.2) and this high level of provision is reflected in the CHC survey although slightly lower than the official figure at 89% coverage (See Table 27).

In Makoni, the water table is fairly shallow, enabling individual households to have their own water sources, usually in the form of protected shallow wells. As these are family water sources in the immediate vicinity of the home, the levels of hygiene rise substantially with the increased access to abundant water nearby. Makoni District is well served and most families have access to safe water. In this sample 79% were using protected water, 38% using a bush pump, and 38% provided with Protected Family Wells. 21% still use unprotected sources of which 18% use water from unprotected traditional wells. No funding was given to Makoni District for water supply in this project because other NGOs in the District were already upgrading family wells. 58% of the sample had access to both safe water and safe sanitation. Only 10% of those with safe water still had unsafe sanitation.

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<sup>38</sup> marginal success in promoting use of potties improved by 8% and safe disposal of children's faeces in latrine by 4% (Cave and Curtis, 2001) (See Section 2.6.4.)

**Table 27:** Types of water source used in Makoni and Tsholotsho Districts, 2000 (CHC Household Survey)

Type of water source used	MAKONI DISTRICT		TSHOLOTSHO		BOTH DISTRICTS
	% CHC : Control		% CHC : Control		% mean
	n=382	n=113	n = 908	n=354	n=59
<b>Blair/bucket pump</b>	2	0	<b>1</b>	1	0
<b>Bushpump</b>	41	57	<b>73</b>	96	100
<b>Protected spring</b>	37	22	<b>15</b>	0	0
<b>Unprotected sources</b>	20	21	<b>11</b>	3	0
TOTAL	100	100	100	100	100

In Tsholotsho there is no alternative to the deep wells as water levels are deep, and there are no rivers or springs. This makes the community vulnerable if hand-pumps break down or the water table drops substantially, as they have no backup. As shown by the CHC survey above (Table 26) all but 4% the people in both of the Health Club and control areas were reliant on community water sources (some type of hand pump).

#### 8.4. HYGIENE PRACTICES

##### 8.4.1. Hand washing Practices

The traditional 'common bowl' method, (in which all present before meals washed their hands in the same water offered in a bowl), has been completely taken over by the 'pouring method' of hand washing in the Community Health Clubs, where a jug of water is poured over each person's hands in turn and is then thrown out to prevent cross infection of skin diseases and other infections. In Tsholotsho and Makoni this practice has been well adhered to, and was demonstrated by children in 90% of households visited in Makoni compared to 49% of the control ( $p < 0.0001$ ) and in 91% in Tsholotsho as opposed to 3% of the control ( $p < 0.0001$ ).

##### 8.4.2. Hand washing Facilities (HWF)

The use of a dedicated 'hand washing facility' (HWF) is becoming more common. This may be in the form of a temporary facility such as a plastic bottle with a home made spout, or a gourd suspended from a tree or post, called a 'Tippy tap'. In Tsholotsho one of the income-generating projects has been to make concrete Hand Washing Facilities using only half a spade of cement and a bucket for a mould (See Section 6.5. Fig 12



and 13). A large number of the club members, (80%) had made or purchased a Hand Washing Facility, as compared to only 40% of non members ( $p < 0.0001$ ).

**Table 28:** Prevalence of hand washing indicators in Makoni and Tsholotsho District, (2000)

O H I	TSHOLOTSHO				MAKONI			
	% C n	% control n=59	Chi-square	p	% C n	% C n	p	p
HW	80	40	38.84	<.0001	42	16	0.0006	0.0006

In Makoni, whenever new VIP latrines are constructed, a permanent cement water container is built into the outside wall of the latrine for the purpose of hand washing. 45% had a HWF of some type, as opposed to 20% in the control ( $p = 0.0006$ ), of which 62% were temporary and 27% were permanent, built into the latrine (See Section 6.5. Fig. 11.). Whilst this is a recommendation for all members, they may make them for status but not use them. Therefore observations were done to see how many were in use, as indicated by whether they were being topped up with water regularly. It was found that 73% of the tanks did have water ( $p < 0.0001$ ), and only 1% were broken. In some areas members were told to have a pot plant under the HWF and if it was thriving it would indicate it had been watered by continual use of the HWF.

#### 8.4.3. Use of Soap

There was a 19% rise in the use of soap in Tsholotsho ( $p = 0.0093$ ), although by contrast only 7% of members compared to 1% of the control had soap by the HWF in Makoni ( $p < 0.0001$ ). This may be attributed to affordability, as well as the fact that not enough emphasis was placed on this vital component of hygiene during the Health Club sessions. Women said they stored soap inside the house because soap is sometimes eaten by black kites, goats, cattle and mice and is also wasted by children if it is left out.

### 8.5. KITCHEN HYGIENE

#### 8.5.1. Taking Drinking Water

One of the main drives in Health Clubs has been to ensure clean water is used for drinking. The 'safe water chain' entails a multiple adherence to good practice: collection from a safe water source, storage in a clean covered container as well as safe methods of taking drinking water, either by using the 'two cup method' (one for

drawing water and one for drinking) or a ladle or long-handled jug. Spot observations were done to see if the water container had a close fitting lid to protect it from contaminated dust and livestock, and the interviewer asked a child for some drinking water. The interviewer observed whether the child knew the procedure of using the ladle (or two cups), and replacing the cover.

**Table 29** : Prevalence of kitchen hygiene indicators in Makoni and Tsholotsho District, (2000)

Objective	Control			Chi-square	p	Study		
	n	%	C			n	%	C
Ladle	9	46	110.25	11	<	5	4	3
						0		17

### 8.5.2. Covered Drinking Water.

96% of the CHC sample in Tsholotsho and 88% in Makoni had covered their drinking water, whilst 90% of the control had done this in Tsholotsho and 91% in Makoni, showing no significant change. It is surmised that this is already an established practice, which has been reinforced by the Ministry of Health for many years.

### 8.5.3. Use of Ladles

95% of the members in Tsholotsho had dedicated ladles as against 46% of the control whilst 52% in Makoni had ladles (of which most were in use) as opposed to 42% of the control: thus there was 10% difference in Makoni and 49% difference in Tsholotsho.

### 8.5.4. Communal Feeding

With the higher incidence of ARIs and spread of tuberculosis, the sharing of cups within the family has been discouraged, and most members know their own personal cups for drinking. Young children in the home were asked to show the enumerator their own cup in order to ascertain if this was common practice in the households visited. 98% of the Health Club respondents did in Tsholotsho and 97% in Makoni did have individual cups for each family member, as opposed to 22% and 66% respectively. This was an important indicator of the affect of CHC teaching as this has not been promoted before by the Ministry of Health or other agencies.

Traditionally the accepted method of serving food has been to place a large mound of *sadza* (stiff maize porridge) on a communal plate in the centre of the group, and for all to take their share in turn according to seniority, using their hands. This has been identified as one of the most obvious causes of germ transmission, particularly where finger nails are long and usually dirty and hand washing is minimal, and seldom with soap. Moreover it often leads to malnutrition of women and children, as there is traditionally a leonine distribution of food whereby traditionally women and children eat the remains after the husband and sons have had their fill.

This practice is being significantly changed by the clubs, as a mean of 92% of Health Club members (98% in Makoni and 86% in Tsholotsho) have demonstrated that they now divide out *Sadza* into individual bowls instead of onto a communal plate, compared to only 10% in Tsholotsho control and 64% in Makoni.

Furthermore in the group discussions this practice has been taken into the public domain, as members now bring their own plates to events such as funerals, which are now weekly events in every village due to high death rate from AIDS. In the past public feasting was a major cause of the spread of diarrhoea, (and in some cases cholera) as communal food was heaped on large banana leaves for public consumption. Now however individual plates are becoming the norm, and often Health Club members are designated kitchen duties to ensure public health standards are maintained.

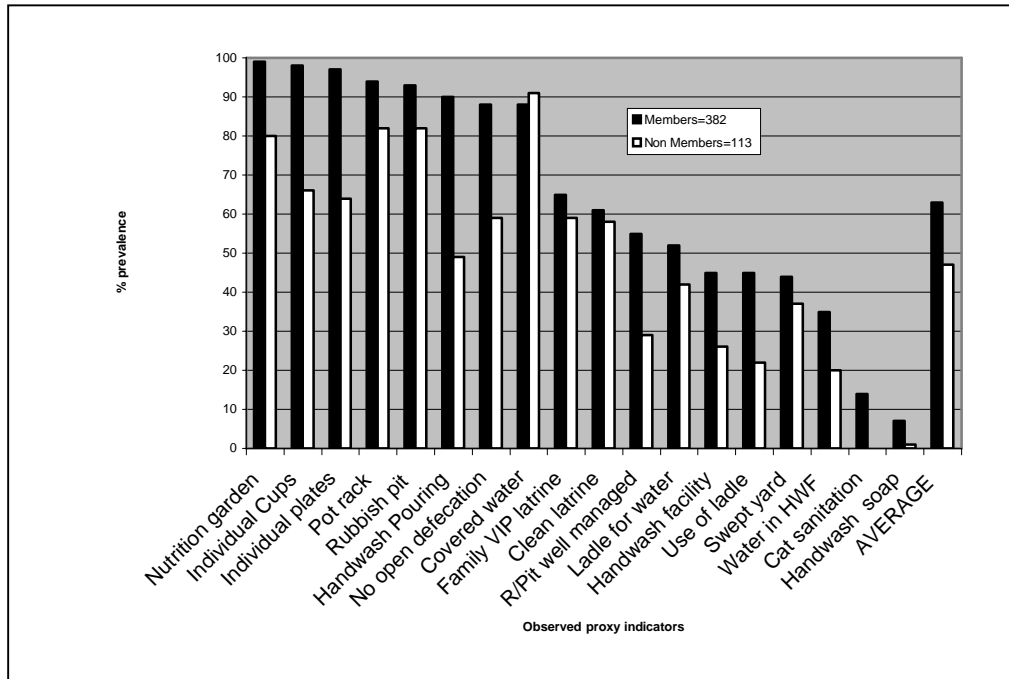
## **8.6. SUMMARY OF INDICATORS OF IMPROVED HYGIENE BEHAVIOUR**

From the wide range of data collected from 736 club members and 172 controls, there were 21 indicators relating to good hygiene prevalence (Table 3). Of these most (except one in Tsholotsho and three in Makoni) showed higher prevalence in the intervention group, with 16 in Tsholotsho and 9 in Makoni having highly significant differences between club members and controls ( $p < 0.001$ ). Use of 'borehole water' and 'child faeces in yard' was not significantly different in either Tsholotsho or Makoni. 'Covered drinking water' was on the margin of significance in Tsholotsho ( $p = 0.0506$ ). With those exceptions, every other indicator was significantly better in the households of Tsholotsho club members than the non-club control group.

### **8.6.1. Makoni District**

In Makoni on the whole the CHCs were closer to the controls: the CHCs having a mean of 59% and the control a mean of 46% reflecting only a 13% mean difference of prevalence of 21 proxy indicators (Table 3). To some extent the smaller difference in

Fig. 20: Percentage of proxy indicators of good hygiene Makoni District, (2000)

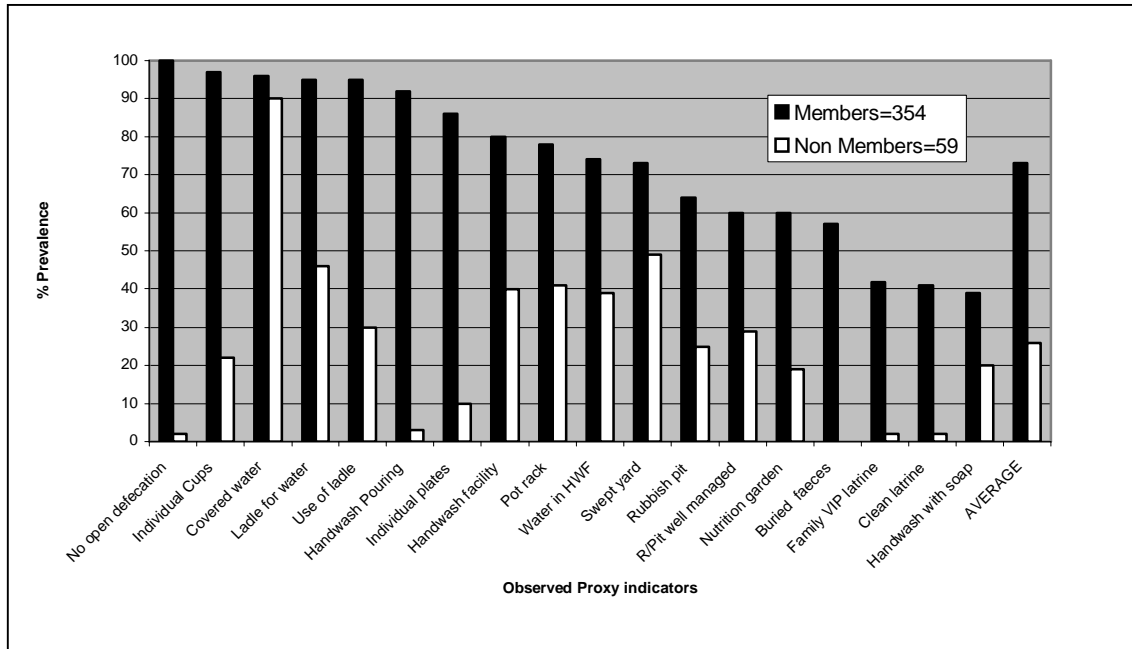


Makoni can be explained because the control group were on average better off and better educated than the CHC members. Although Makoni is considerably lower than Tsholotsho, the results there are still on a par with many of the studies examined in previous reviews (Sayagh & Moseley (1976), Allen et al (1992), Valente et al (1994) (See Chapter 1.12).

However this is a mean of 21 different practices ranging from 33% difference in mean for individual plates to only 12% difference in having pot racks, or 11% for having a rubbish pit. Looking at which practices showed the most difference we surmised that all the *regular* practices that have been constantly promoted by the Ministry of Health and other Agencies working in the many water and sanitation programmes in Makoni for the past 20 years, have had an impact. Levels of the control group are not dissimilar to the CHCs indicating that in well known practices the CHC sessions have only impacted between 10% and 20% on the members.

These practise include covering of drinking water (3% less in CHCs), use of ladle (3%), sweeping of yards (7% more in CHCs), keeping latrines clean (7%), having a rubbish pit (11%) and a pot rack (12% more) and pouring method for hand washing (11%).

**Fig. 21:** Prevalence of Hygiene Behaviour Change by observed proxy indicators between members and control group in Tsholotsho District, (2000)



However there is a significant improvement when we disaggregate the practices that are *new* in the area, recommended by the AHEAD intervention. This rises to 29% for no open faecal disposal, 32% built latrines in the last year, 25% more hand washing facilities, 19% more nutrition gardens, 26% more of those who have rubbish pits, manage them correctly, in terms of separating garbage and burning regularly. There were some highly significant differences indicated by use of ‘individual cups’ (32%) ‘individual plates’ (33%), which are completely novel recommendations showing that the CHC sessions have had a strong impact.

### 8.6.2. Tsholotsho District

In Tsholotsho (Table 3), indicators showing particularly high adherence to recommended practices including ‘no open faecal disposal’ seen in 100% of club members’ households compared to 2% in the control, ‘individual cups’ (97% compared to 22%); ‘ladle in use’ (95% versus 30%); ‘pouring method of hand washing’ at (91% versus 3%); ‘individual plates’ (86% versus 10%), and for ‘hand wash facility owned’ (80% versus 40%). Smaller, but still highly significant differences between intervention and control are seen in ‘pot racks’ (78% versus 41%); ‘swept yard’ (73% versus 49%) and ‘rubbish pit owned’ (64% versus 25%). No-one in the control group practised

covered faecal disposal (cat sanitation), but it was practised by all those without latrines (57%) in the intervention group. Of the 43% who had latrines, most were built in the last year, and all except 2% were found to be used and clean. Soap was found at hand wash facilities of 39% of the members, versus 20% of the control. Importantly 60% of the members had nutrition gardens as opposed to only 29% amongst the control. The mean difference between CHCs (70%) and Control (27%) of 21 observations was a 43% increase.

## 8.7. HEALTH KNOWLEDGE RELATED TO GOOD HYGIENE BEHAVIOUR PRACTISE

There has been considerable scepticism that health knowledge has any impact on hygiene behaviour change. Instead with the growing popularity of Social Marketing much health promotion now makes no appeal to cognitive understanding of issues but rather uses subliminal means to develop an unconscious need for a product. The results in this research show that there is a highly significant relationship between good health knowledge and good practice. For example 79% of those who were found to practice good hygiene (six practices listed in Table 30 below) also had good knowledge, (i.e. scoring 3 out of 3 for knowledge of the transmission, symptoms and cure of diarrhoea). The pattern was consistent with only 15% of those with partial knowledge having good hygiene in six practices, whilst only 6% with poor knowledge practised good hygiene.

**Table 30:** Hygiene behaviour related to knowledge levels of diarrhoea transmission in Zimbabwe, (2000)

Hygiene Behaviour	% Knowledge levels of Diarrhoea			n=1,1110
	Good	Partial	Poor	P-values
<b>Covered water</b>	<b>78</b>	<b>16</b>	<b>6</b>	<b>0.006</b>
<b>Use of Handwash facility</b>	<b>80</b>	<b>16</b>	<b>7</b>	<b>&lt; 0.0001</b>
<b>Use of soap/ash handwash</b>	<b>81</b>	<b>15</b>	<b>4</b>	<b>&lt; 0.0001</b>
<b>Pouring handwash method</b>	<b>86</b>	<b>10</b>	<b>4</b>	<b>&lt; 0.0001</b>
<b>Use of rubbish pit</b>	<b>76</b>	<b>18</b>	<b>6</b>	<b>0.01</b>
<b>No child faeces in yard</b>	<b>74</b>	<b>19</b>	<b>7</b>	<b>0.03</b>
Mean of 6 practices above	79%	15%	6%	

Possible confounders were discounted as it was found that although age had an effect on the level of knowledge, the range was between 63% (70+ yrs) and 85% (20-29 years). Whilst there was a trend for those with less than two years schooling to be less knowledgeable (67%) than those with 'O' levels of which 88% were knowledgeable, both were high percentages (See Annex 7). Neither the number of health sessions nor the time lapse between the end of the health promotion showed much variation

between groups. Religion had no significant effect on hygiene behaviour (although there were few Moslems to provide a comparison). Marital status on the other hand was a factor, probably related to age all 14 respondents who were single had good knowledge whilst 76% of those 892 who were married, 81% of those divorced and 71% of those widowed had good knowledge.

The findings leave little doubt of the highly significant impact that health knowledge has had on the behaviour patterns of Health Club members. There is however a difference in levels of health knowledge and hygiene behaviour in the different districts, which needs explanation. In the next chapter the discussions with Ministry of Health staff and the community interviews may provide some insight into how this strategy achieved these results.

## CHAPTER 9: QUALITATIVE RESULTS

The Qualitative Data was collected in ten old wards of Makoni District 2004, and consists of twenty interviews of Community Health Club members, and ten pair-wise ranking community exercises.

**Section 9.1.** describes the respondents and goes onto report on the findings of the twenty individual interviews that were conducted in 2004. Analysis of the interviews have been done under five main categories:

**Section 9.1.1.** concentrates on the members' perceptions of their attraction to the club; reasons for joining, expectations, level of attendance and future commitment, recommendation of the club to friends, and how often the club meets.

**Section 9.1.2.** tries to ascertain the members self worth, and whether the club has helped her to meet her needs; if her self confidence and personal self efficacy has been improved by the club, in terms of her self esteem, and reputation.

**Section 9.1.3.** tries to gauge how her worth within her family may have been affected by her activities in the club, and analyses her husbands attitudes to her activities within the club, as well as the effect on her children and in-laws.

**Section 9.1.4.** explores whether the member feels she has a grasp of health issues, and how hygiene has changed in her home, whether she feels confident to prevent disease, and if she knows how to use herbal remedies, and her first hand experiences of prevention or cure.

**Section 9.1.5.** focuses on the effect of each member on her friends and neighbours and how the Community Health Club has impacted on the neighbourhood; whether it has provided a safety net for non-members as well as members, whether levels of trust and social capital have been increased; as well as reasons why some people have not joined the Health Clubs.

**Section 9.2.** describes the pair-wise ranking matrix results which answers two main questions which are dealt with separately in two halves of the exercise which was done with ten Community Health Clubs.

**Section 9.2.1.** reports on the suggestions of change made by the Health Club members and by categorising them under the seven main headings of



Maslow's (1954) Hierarchy of Needs it is found that The Need for Safety, Cognition and Belongingness are found to been met the most by the intervention

**Section 9.2.2.** shows how the pair-wise ranking exercise was performed and the findings were deduced.

**Section 9.2.3.** presents findings from the matrix pair-wise ranking exercises which shows that Safety, Cognition and Belongingness are also ranked as most important for Community Health Club members

**Section 9.2.4.** matches the results of the two halves of the exercises together to see if what is most wanted by the community is met the Community Health Clubs.

**Section 9.2.5.** discusses the finer details of how the typology of needs may have confounded results, and although this has produced possibilities of error the overall pattern is remarkably consistent

**Section 9.2.6.** changes the classic order of the Maslow's Hierarchy to reflect the findings of the most salient Needs in the Community Health Club in Makoni District

To provide authentic material, extracts from the interviews have been quoted (shown in italics) where appropriate rather than the author's second hand description of what was often ably described by the respondents and this should provide a flavour of the intervention to counterbalance qualitative external assessment reported in Chapter 8. The content of the all interviews were analysed and colour coded to enable ideas to be grouped under five categories. (**bold font** has been used to enable the reader to trace the main categories). To enable ready verification of all claims Table 32 below shows the five main categories used for analysis of interviews, and indicates where the quotations can be found in full in Annex 13 where responses to each question have been rearranged under the interview questions.

**Section 9.2.** presents the findings of the pair wise ranking community evaluation done in ten Health Clubs in 2004.

**Section 9.3.** concludes with a discussion on possible sources of bias and draws attention to themes to be fully explored in the final discussion (Chapter 10).

**Table: 31.** Reference for categories of analysis of the interviews with reference to the section number the interview question number and the Annex number.

<b>Section Number</b>	<b>Category of content analysis</b>	<b>Question Number</b>	<b>Annex Number</b>
9.1.1.	Profile of respondents		13.1.1
<b>1. CLUB</b>			
9.1.1.1.	Reasons for joining clubs	Q.17.	13.1.1.
9.1.1.2.	Attendance at sessions	Q.20.	13.1.2.
9.1.1.3.	Attraction of the clubs	Q.16.	13.1.3.
9.1.1.4.	Perception of gain from Health Clubs	Q.41.	13.1.4.
9.1.1.5.	Expectations met	Q.40.	13.1.5.
9.1.1.6.	Future commitment	Q.42./43	13.1.6.
9.1.1.7.	Recommendation of club	Q.32.	13.1.7.
9.1.1.8.	Sustainability of club	Q.29.	13.1.8.
9.1.1.9.	Voluntary statements	Q.44.	13.1.9.
<b>2. SELF</b>			
9.1.2.1	Main value for self	Q.14	13.2.1.
9.1.2.2.	Self Improvement	Q.15.	13.2.2.
9.1.2.3.	Value of reputation	Q.34	13.2.3.
9.1.2.4.	Value of respect	Q.25	13.2.4.
9.1.2.5.	Comparative rural: urban lifestyle	Q.19.	13.2.5.
9.1.2.6.	Self reliance	Q.18./39	13.2.6.
<b>3. FAMILY</b>			
9.1.3.1.	Changes in husband	Q.21	13.3.1.
9.1.3.2.	Changes in children	Q.22	13.3.2.
9.1.3.3.	Changes with in-laws	Q.23.	13.3.3.
<b>4. HEALTH</b>			
9.1.4.1.	Disease prevention	Q.6	13.4.1.
9.1.4.2.	Application of hygiene knowledge	Q.34/35	13.4.2.
9.1.4.3.	HIV/AIDS involvement	Q.37/ 38	13.4.3.
<b>5. NEIBOURHOOD</b>			
9.1.5.1.	Changes with friends	Q.24	13.5.1.
9.1.5.2.	Differences members: non-members	Q.26	13.5.2.
9.1.5.3.	Type of friendship	Q.27/28	13.5.3.
9.1.5.4.	Social Support	Q.30.	13.5.4.
9.1.5.5.	Reasons for not joining	Q.31.	13.5.5.

## **9.1. FINDINGS FROM INDIVIDUAL INTERVIEWS**

### **9.1.1. Profile of Community Health Club Members interviewed**

Only one out of twenty respondents was male. Average age of respondents was 47.5 years, with five under forty, the youngest being twenty seven years old. The level of education was high and all had been to primary school: six respondents had done 1-4 years primary school, six had 5-7 years primary (Std 2-4, Grade 2-4), three had done ZJC (2-3 years sec. school), five had been to four years of secondary school and completed 'O' levels examinations. Nineteen were or had been married, but at the time of interview four women were widows, ten were with husbands living at home, and five had husbands who lived mainly in town. All were caring for children at home, with the average number of 5 children, ranging from one to eight children. Four respondents were also caring for orphans of their extended family (See Annex 13.1.1.).

All twenty respondents had completed the full twenty sessions of the health promotion programme. All had been members of their club for over four years: one member had been a founder member in 1995, three joined in 1996, seven in 1997, four in 1998, four in 1999 and only one in the year 2000. They had all been exposed to all five dimensions of the programme (health promotion, sanitation, income generation, literacy and the HIV/AIDS carer programme). Eighteen were currently involved in income generating projects; eleven out of twenty were involved in the AIDS carer programme: one as recipient, four as care givers, two as trainers, and two with orphan care and one a volunteer. (See Annex 13.1.1.)

Ten were ordinary members of the club; of the other ten members who were all office bearers; two are ward coordinators, three were treasurers, one secretary, two vice secretaries, one is also the chairlady in the umbrella committee of all the clubs for the ward, and one also has a part time job as a nutrition coordinator. All women were unknown as community leaders before the Health Clubs started (See Annex 13.1.1.).

### **MEMBERS' PERCEPTIONS OF THEIR COMMUNITY HEALTH CLUB**

This is the first of five categories in this section on the members' perception of their own Health Club and how and why they are still affiliated. It is divided into nine main categories of content analysis (See Table 30 above).

### 9.1.1.1. Reasons for joining

In order to understand the motivational attraction of the Health Club, respondents were asked to explain why they originally wanted to join (See Annex 13.1.1.). A wide variety of reasons was given and all gave more than one reason. The most common response involved the need for **knowledge** with eleven mentions, whilst there were eight mentions of the need for **social interaction**, i.e. to be the same as the others, to interact or to share. Five mentions were made of the need for **health or good hygiene**, diet or nutrition, and four mentioned **self improvement** of some type. Only three mentioned that they joined for reasons of **material gain**, and none of these gave this reason solely. There were also three mentions of the **need for change**, as with the improvement of home and living standards..

**Table 32.** *CHC Members’ reasons for joining Health Clubs, Makoni (2004)*

REASONS FOR JOINING	EXAMPLES GIVEN	Number of Responses	% Total Responses
Knowledge	Learn, get knowledge	11	30
<b>Social Interaction</b>	Join others, be the same, interact, share	8	22
<b>Health</b>	Health, hygiene, diet, nutrition	5	13
<b>Self improvement</b>	Improve self: health, knowledge	4	11
<b>Gain</b>	Get something, inputs, support family	3	8
<b>Change</b>	Improve home, living standards	3	8
<b>Curiosity</b>	What is going to happen, meet there, find out	3	8
<b>TOTAL</b>		<b>37</b>	<b>100</b>

Pure **curiosity** was also an aspect which was mentioned three times. The following was the most lively response

*The first thing I wanted to know: ‘What is going to happen there?’  
The second thing I wanted to know. ‘Am I going to get something?  
Am I going to improve my life? What actually am I going to meet  
there?’ Many things .... and then I had to join, and obviously I met all  
of these missions. (#4)*

### 9.1.1.2. Attendance at sessions

All respondents had attended twenty sessions or more, which means they completed their membership card and ‘graduated’ with a certificate of full attendance. When asked

why they had attended so many sessions, all of the nineteen enthused about the content of the training in various ways (See Annex 13.1.2). Sixteen referred directly to the **interest** they had in each subjects, twelve mentioning **the variety** was appealing and that as the topics were all different they wanted to know each one, and didn't want to miss out on anything as the sessions were all useful and applicable to their daily life. Two indicated their own **competitiveness**, in that they *'didn't want to remain behind'*, and some said they wouldn't mind listening to **repeats** as the topics were so interesting. A sixty year old woman, with only two years of primary school said this:

*...at times I did not attend because of illness or deaths, but I completed my card, and I graduated. Those lessons were very good. We were mentally stimulated so much so that we wanted to know every topic. (#13)*

**Observer: Is that what she said, 'mentally stimulated'?**

*Interviewer: Yes, she said her head, her brain, was woken up, you know that means.... stimulated. Brain stimulation.*

Each respondent indicated a strong **love of learning**, curiosity and interest in health issues for their own sake, apart from other aspects of the club that might appeal. Only one respondent (after prompting) also mentioned a **social reason** saying that by meeting other people she could forget her problems. The remaining respondents all said they went there for interest and **knowledge** (See Annex 13.1.2.).

### 9.1.1.3. Attraction of the clubs

When asked *'What do you enjoy best about the clubs?'* the answers reflected a broader range of interest rather than just for the sake of learning (See Annex 13.1.3.). However, the most common attraction was still **knowledge** mentioned by eleven respondents. They stressed the pleasure they found in learning about diseases, good health, hygiene and farming. There were also ten mentions of some form of **social interaction**, such as sharing ideas, meeting people, socialising, togetherness, mutual encouragement and team spirit. Many clubs in the past five years have started weekly netball games and athletics competitions; six mentioned **sport** as a great joy to them, including a lady of sixty who claimed she is still a very fast runner! Six mentions were also made of the pleasure in **performance**: drama, singing and poems feature regularly in sessions in most clubs, and inter-club competitions arranged annually in some areas.

This love of rapport was mentioned earlier as a cultural expression of the Shona (Kriel, 1971). Contrary to the perception that to villagers are motivated mainly by gain

(Mooney, 1975) and to attract a crowd for health education some incentives (such as a free refreshments or T shirts) are necessary, this research found that this was not the main incentive to join. Only four people mentioned that the club helps them to **earn money**, three mentioned **home improvement** for better hygiene, whilst only two mentioned issues of **self efficacy** such as self pride, achievement and being different from others.

**Table 33.** *Reasons that people are attracted to join Community Health Club, Makoni, (2004)*

ATTRACTION OF CHC	EXAMPLES GIVEN	Number of Responses	% Total Responses
Knowledge	Learning about disease, farming, health	11	24
Social Interaction	Sharing ideas, meeting people, socialising, togetherness, mutual encouragement, part of a team	10	23
Competitiveness	Sport, netball, running, athletics	6	13
Performance	Drama, poems, singing	6	13
Self reliance	Earning money, supporting family, Income generating projects	4	9
Self improvement	Home improvement, improved hygiene practice, fitness	3	7
Self efficacy	Self pride, achievement, being different from others	2	4
Happiness	Enjoyment, having fun	3	7
TOTAL		45	100

Respondent 15, quoted below was the only one to stress the need for a bit of **fun** that comes with debate:

*This knowledge and the discussions we have in the lessons. I enjoy it when you answer questions. You have time to laugh. Have some fun.'*  
(#15)

#### 9.1.1.4. Perception of gain from Community Health Clubs

When the Health Clubs were initially formed there was a distinct strategy not to arouse expectations of material inputs (such as cement) from joining a Health Club. However in most areas, by the second year there was a subsidised sanitation component, followed in some areas by income generating projects in the third year (See Sustainable Livelihoods, Section 6.8). Therefore the question: *'Do you think you benefited more from the knowledge or the inputs?'* refers to whether more value was placed by the Health Club member on material gain or cognitive improvement. Whilst material gain is always welcomed there was a clear appreciation of knowledge for its own sake (See Annex. 13.1.4.) Four people who had not directly benefited from income generating groups naturally said **knowledge**; four mentioned **only inputs material**; whilst the

remaining eight mentioned **both knowledge and inputs** as having been important, as noted by the respondent below.

*The inputs were also very important because with the knowledge we couldn't go any further. When we got the cement we managed to build our toilet. So I can say both of them, the knowledge and the inputs were very important to us. (#17)*

#### **9.2.5. Members' expectations of the Community Health Club**

In order to evaluate how satisfied the 'clients' were, the classic 'workshop evaluation' question was put to each respondent: 'Were your expectations met?' There were four missing answers, fourteen said 'yes, **expectations were more than met**', three who qualified their response said they would naturally **like more if possible**, and only two mentioned they were **disappointed** that they did not receive direct inputs that they had hoped to receive.

*Not all my expectations were met, as some clubs got cement and machines and our club didn't get that, although we managed to pull through with self reliance. We would also like to see a situation where we also get inputs like oil pressing machines. (#18)*

In fact, the high demand created for sanitation far outstripped the ability of the project to provide and when funding was cut off in Zimbabwe for political reasons, the sanitation component of the project was abandoned without any exit strategy in place. By this stage however, most of the clubs in the ten old wards of Makoni had been assisted with oil presses, peanut grinders and soap making equipment but this could not be extended to all clubs, and demand was high.

However as the emphasis on the Health Club was on knowledge rather than material gain it appears there was not too much resentment from those who did not receive a subsidy, and many have gone on to arrange their own home improvements without subsidy.

*Definitely I needed the knowledge, if you have the knowledge you can do what you want to do. (#19)*

#### 9.1.1.6. Members' future commitment to the Community Health Club

As the Health Clubs had been running for over four years without direct support for inputs, it was interesting to find out if the level of commitment of time and energy from each member has remained constant, given that there have been no material incentives to remain within the clubs. There were some strong statements of loyalty, with five saying they would continue **until their death** with the club! There were nine mentions of the **social gratification** of unity, socialising, support from membership and four mentioned the continual **need to learn**. Fitness, **sport** and good presentation were also reasons for staying, and the one male mentioned he that still had **a role to play** within the community. Only one person emphasised not only knowledge but also the importance of **financial gain** from her income generating projects (See Annex13.1.5.). The enthusiasm for the Health Club was expressed most forcefully by a 44 year old woman who explained:

*Really I will (stay). I have to die there! It keeps me fit, because every day I have to be presentable. When you meet me you have to know this is Somebody in this ward. So it keeps me smart and keeps me healthy and fit. ( #4)*

Another woman illustrated how she had been supported by the membership in an emergency.

*I will like to continue with the club because it has helped me in so many ways. Recently I got all my property stolen at my homestead and all the club members came in with their assistance in terms of clothing and other things. So I regard the club as very, very important. (#11)*

#### 9.1.1.7. How Community Health Clubs are recommended to friends

As a way of getting members to explain what the club means to them and what it could do for rural women, they were asked to explain how they would explain the Community Health Club to non-members in order to persuade them to join (See Annex. 13.1.7.). Only one mentioned that they might hint at **inputs**, whilst another said she would tell them not to expect to get any material benefit until they had completed the sessions. When asked if this was fair, she was adamant that it was the best way of dealing with incentives. All the others only emphasized non-material benefits such as the **changes** that come about as a result of good knowledge and improved hygiene. Four indicated that their own **good example** was the best way, saying they would just invite people to see their own homesteads to become convinced. One mentioned **drama** is the best way to spread the message of good hygiene, and one mentioned interestingly that



**Adult Literacy Classes** would entice new members. It was striking how strongly the respondents expressed themselves and how they had attributed the main advantages to **reduction of disease** and healthier living. The oldest respondent (a woman of 72), had this to say about how the Health Club and the church can be compared:

*Even if you don't tell them, they will see! A good example of how much our lives have changed. They will tell you. 'Ah these are the health people'. Before we say anything and they will say, 'These are good people!'*

***Is there any similarity between the health people and those who are in the church groups?***

*The difference is that the Health Club members they go and help, they don't just kneel down and pray. That is the difference. So I do both: the church and the health.*

***Is there any clash between the two?***

*Of course (not)! The club activities: the church likes them. (#15. Apostolic Faith).*

Seven out of twenty were not asked how many friends they had persuaded to join. Of the remaining fourteen respondents, 36% said they had introduced between one and five friends, 14% said from six to nine, whilst the majority of 43% people had introduced ten or more friends (See Table 33, below). One respondent (#7) who had initiated the Health Club, (Annex.14.19.) claimed to have persuaded at least 25 friends who had all graduated

**Table 34:** *Reasons given by CHC members to persuade others to join CHC, Makoni, (2004)*

<b># PERSUADED TO JOIN CHC</b>	<b>Number of Respondents</b>	<b>% Respondents</b>
1-5	5	36
6-9	2	14
10-20	6	43
<20	1	7
<b>TOTAL</b>	<b>14</b>	<b>100</b>

This desire to introduce others was taken as a positive indicator of their own dedication, and also gave some idea of how Community Health Clubs would expand over time with an average of eight friends per member being pulled in (See. Annex13.1.7). It can be calculated that if, at the first meeting there are only twenty people, within a few months

this can be expected to increase to at least one hundred members. This has also been the pattern in reality. Therefore the intervention should allow for flexible and ongoing enrolment for the successive members to enable the Health Club to reach its full potential of at least 80% coverage of a village.

#### 9.1.1.8 Sustainability of the Community Health Club over time

One of the main objectives of this study was to verify how well the clubs had survived without external material support since the health promotion project officially ended in February 2002 (See Section 6.8.). In order to verify how many of activities were still ongoing, each respondent was asked how often the club met and for what reason.

**Table 35:** *Regularity of Health Club meetings <5 years after end of external funding*

FREQUENCY OF MEETING	NUMBER OF RESPONDENTS	% RESPONDENT	% REASONS* FOR CHC MEETING		
			Health	Income Generation	Sport
No meetings	0	0	0	0	0
Twice weekly	2	14	2	0	0
Weekly	10	72	70	60	20
Monthly	2	14	2	0	0
<b>Total</b>	<b>14</b>	<b>100%</b>	<b>11</b>	<b>6</b>	<b>2</b>

\* More than one reason per respondent given

Regularity of meetings in each CHC enabled their level of activity to be gauged and it was found that the seventeen respondents who were asked all reported regular meetings arranged by their committees. 14% met **monthly** and 14% met **twice weekly**, whilst 72% said they met **weekly**. Reasons for meeting included 70% for **health education** reasons; whilst 60% met for the **IG projects in addition to health**, and 20% had **weekly netball** practice. Not one of the Health Clubs that were sampled reported '**no activities**'. Thus between 6-9 years after formation, all ten clubs sampled were still operational (See Table 34 above).

It was clear that these clubs had established strong leadership (with the exception of Ruombwe, See Fig 26, below) and had become significant institutions in the village. In contrast to the national economy of Zimbabwe as a whole, the club members were surviving well with nutrition gardens and produce for sale.

One group demonstrated how they had overcome difficulties presented by the hyperinflation as illustrated below (See Annex 13.1.8.):

*We often meet, twice a month on the 15<sup>th</sup> and the 30<sup>th</sup> to arrange for our soap making project.*

**Observer: *Is that going on now?*** (given the economic crisis in the country)

*We are no longer making the soap but we are actually ordering ready made soap for sale and oil. It is very difficult to get tallow, but if we get tallow we make our own soap.*

**Observer: *Who do you sell to?***

*To the village, the local market.*

**Observer: *Is it popular, is it needed?***

*To sell forty bars of soap it will take less than a day, we would have sold them all.*

**Observer: *Do they sell it so well because it is a lower price or what?***

*We sell it for Z\$5,500 per bar. (approximately. US\$1 in 2004.) (#8)*

The following extract from interview #16 (Annex. 13.1.8.) shows how health messages continue to be circulated within the community, although official health sessions are not being held by MoH in that ward. It is also interesting that the respondent's perception of malaria having been reduced by burning cow dung, and keeping grass cut around the house; simple cost effective interventions which are not usually considered enough to prevent malaria.

*We always meet once a week during the dry season, when we have sunflowers we will be processing the oil.*

*And during this wet season when we don't have oil, we always meet to remind each other, especially in the prevention of malaria, we always tell each other, we must use mosquito*

*repellent, to tell our children to put on long sleeve clothing and also to close our windows early and also to send people to hospital earlier. I think there has been a reduction in malaria cases around. If we don't have coils in our house we always use cow dung to burn. Also now that people cut grass around, malaria has actually been reduced. Some people have mosquito nets but some don't. (#16)*

If these methods have been effective further investigation is needed to establish whether malaria is actually being reduced by such simple means (See. Section 10.14.4.).

#### **9.1.1.9. Additional comments**

This section was left open so that any other additional information or comments could be recorded. In most cases it was used by respondents to thank the NGO for the visit because they valued the chance to be noticed, and in many cases they requested more support. However one 44 year old lady wanted to put on record her perception of the impact that the herbal remedies have made in the area.

*I would like to add something about the herbs that have become something very important around this ward. You know, at first people didn't believe that something like a small plant can help them. But when we come to use them... You know it was done practically... Introducing and using at the same time. You know it is helping a lot. In this area we haven't got a clinic near us. Only Nyamidzi Clinic 30 kms away from us, or Mt Zuma behind there about 30 kms from here, so people are relying on herbs. If you come to my garden they are now shrubs because of being used. When I am away now (there will have been) three or four people coming to my house saying 'Where is she. May we have the herbs?' This is happening. One have got stomach ache, one have got herpes, one have got this, and all that we are curing with herbs.*

**Observer: Do you think the herbs can be misused at all? Have you had problems where someone may have been sick from taking them?**

*We haven't met that yet. No. I haven't met any problems. Any herb that we have taken they (the clients) just recommend it. They say, 'This was wonderful. This has helped me a lot!'*

***Observer: Where did you get the information? Where did you find out about it?***

When we went for the workshops in Dumbamwe with Josephine (ZimAHEAD) they brought up those from Fabidzanai (another NGO), they introduced every herb to us, and how you use it, and we were taking the notes. So from those notes now we can use it even by head.

**9.1.2. THE EFFECT OF THE CLUB ON THE MEMBER**

Having been given some insights as to what is actually taking place within the Health Clubs and to see why members have adhered to the clubs, the next interest was to prompt members to express how the club has impacted on them personally in their own lives. This was measured in terms of their own sense of worth, and how their relationships and personal image may have been altered as reflected in the esteem they receive from their husbands, children, in-laws and friends, as well as the community at large.(See Annex 13.2.1.)

**9.1.2.1. Main Value for Self**

**Table 36:** *Main value for self given by CHC members, Makoni (2004)*

<b>MAIN VALUE</b>	<b>EXAMPLES GIVEN</b>	<b>Number of responses</b>	<b>% Total responses</b>
Nurture family	Caring for family, protection of family, family values	12	28
Self reliance	Poverty, enough food, growing food, better living standards	9	21
Self discipline	Correct behaviour and values, strength of character	6	14
Health	Health, good home hygiene, care of home, cleanliness	6	14
Knowledge	Value of knowledge, education, school, information.	4	9
Self efficacy	Independence, self sufficiency, coping, self-confidence	3	7
Happiness	Love, unity, togetherness, happiness, nurturing, neighbours	3	7
<b>TOTAL</b>		<b>43</b>	<b>100</b>

To try to establish what is a core value for their own 'raison d'être', the question was asked, 'What is the most important thing in your life as a woman (or as a man)?' (See Annex 13.2.1.) Some found this question too abstract and as a result difficult to answer. Respondent #4, although she had two years of secondary schooling, giggled in embarrassment as she mentally wrestled with the concept and repeated the question seeking clarification:

*... most important to do?*

**Observer: What is life for? Why do think we are here? What is the most important thing to you?**

*Myself? ... maybe I can be lost (difficult to explain) but... what I can only think that I am important because I care for my family. That is one important thing I can say I am here for. Then to look for myself also its important...(laughs, embarrassed)....(#4)*

Most women mentioned more than one main aspect for the main value of their life. By far the most salient was the perception that a women exists primarily to **sustain and nurture the family**. (See Section 3.2)

There were 43 mentions of which 28% referred to nurturing the family, 21% ascribed their own importance to the practical level of growing food, providing enough for children, and keeping good living standards: these material aspects of provision were grouped under the term **self reliance**. 14% concerned an unanticipated value of '**self discipline**' as being the key virtue for a woman, which entails the concept of moral self-control, humility, obedience to husband and selfless behaviour. These are in fact core traditional values for women in the Shona culture (See Section 3.4). Equal to self-discipline was **Health**, 14% of mentions of ideas such as 'good home hygiene', 'healthy living', or 'cleanliness', indicating that the training in Community Health Clubs may have persuaded members of the link between cleanliness and health, unlike in other health promotion studies where this seems not to be evident (Curtis, 2000). There were 9% of mentions related to **knowledge**, with ideas such as the value of education, school and acquiring correct information. 7% of mentions related to **self efficacy**, indicating value for independence, self sufficiency, coping and self confidence. Of equal importance but at the end of the scale with self efficacy, was the importance of **happiness**, used to encompass ideas expressing love, unity, togetherness, nurturing and neighbourliness.

### 9.1.2.2. Nurturing the family

Having ascertained which were the core values for each woman (See Section 9.1.2.1. above), the respondent was then asked ‘*How does the club help you to achieve this?*’ (See Annex.13.2.2.). In most cases respondents made the connection between the two questions, but tended to respond to this question with a more concrete illustration of **activities** within the club which had enabled her to meet her ideal, mainly in a material sense of being able to **nurture her family** by growing enough food, raising money for school fees by selling vegetables or helping her husband earn money (11% of responses). The club is seen as a means of **gaining knowledge** (11% of responses), in order to **improve home hygiene** and prevent diseases (22% of responses).

The more abstract aspects of **self efficacy** and **self discipline** were not illustrated except in two cases, with a 63 year old saying ‘*I am different from other old women*’ (#6), and a 72 year old saying,

*‘The clubs are so good, we learn a lot. That we should drink clean, uncontaminated water; a lot we learn from these clubs.*

**Table 37:** Ways life has changed as a result of the CHC, Makoni (2004)

Category	Enabling factors	Number responses	% of total responses
<b>Hygiene Behaviour</b>	Sweeping, pot racks, plates, hygiene behaviour	<b>20</b>	22
<b>Home improvement</b>	Orchards, gardens, flowers, lawn, new rooms, asbestos roof	<b>14</b>	16
<b>Self Efficacy</b>	Husband/social respect, pride, time keeping, work ethic	<b>10</b>	11
<b>Sanitation</b>	New toilet, cat san, clean latrines	<b>10</b>	11
<b>Self reliance</b>	Income generation, supporting financially, selling/buying items	<b>9</b>	10
<b>Water</b>	Improved wells, covered water, ladle, own cups	<b>8</b>	9
<b>Knowledge</b>	Improved knowledge, understanding of disease, germ theory	<b>6</b>	7
<b>Disease reduction</b>	Malaria, diarrhoea	<b>5</b>	6
<b>Community</b>	Community support, unity, togetherness	<b>5</b>	6
<b>HIV/AIDS support</b>	Use of herbs, caring, home remedies	<b>2</b>	2
<b>TOTAL</b>		<b>89</b>	100

**Observer: Do you know more than your mother?**

*Ah. Number one! I am much better than my mother. I used to be given left over food, even if I have not washed my hands, but now I cannot do that to my grandchildren! Children must wash their hands first before they get any food.’ (#15)*

It was difficult to get abstract analysis of **self improvement** and only one 49 year old captured some of the less obvious qualities that have clearly been developed in the clubs:

*‘The club has helped me to improve in this because I am always with others socialising. And through that way we create a lot of love and it has also helped to be self reliant. Especially before that, we didn’t have any nutrition gardens and we didn’t have toilets, now we have all those facilities through self reliance.’ (#16)*

Most women were concerned with straightforward survival in monetary terms and were quick to illustrate how the combination of knowledge, and its application in good farming and nutrition, as well as improved home hygiene and decreased ill health, has enabled them to be better mothers. A 27 year old illustrated it like this:

*(That) the clubs have helped me to acquire knowledge to be able to care for my children is something that I like most. Now I am able to care for them. Also I am motivated to get an income by myself and help my husband, which is needed in life. At this time he is only doing some soft (occasional) jobs. Working at home (for a time) and then he is not working (does not have work) . He is living with his younger brother (in town). (#14)*

The pleasure of being self sufficient, of not having to rely on one’s husband as a sole provider, was also portrayed by a 44 year old who has risen in the club to become Ward Co-ordinator and who is an example of how the club activities can transform the life of a previously unknown rural woman if she becomes a community leader.

*It helps me because now I have no problem, I have nothing to think too much (i.e. I don’t have to worry) that instead of just asking my husband what to do next, I can just do it myself. It’s also surprised him that I have got something from the club. (I tell him) ‘Don’t worry about the soap (I have paid for it) already. Don’t worry, I have paid the school fees!’...so it relieved all our minds, myself and the husband. ... (laughs with pride) (#4)*



### 9.1.2.3. Reputation as a knowledgeable person

*I am regarded as someone knowledgeable. Almost all the people from the surrounding villages decided to have oil processing at my homestead since it is a good looking homestead where good hygiene practices are done. (#11)*

As all those interviewed had received public recognition, having been presented with their certificates at the graduation day, they were asked if they thought that they were considered by others to be especially knowledgeable in health and hygiene and if they were deferred to in any way, despite being among many who had achieved this level within the village. All of them admitted that they felt their reputation was one of a **'knowledgeable person'** in terms of health and hygiene (See Annex.13.2.3.). Some were shy to take credit, but would illustrate it by *'my children look quite different'*, *'she has shown from her home and has many followers'*, or *'she is regarded as rich'* because her home looks so smart, and one even called herself a *'health extremist'*, meaning possibly a perfectionist. Two were able to illustrate their **public recognition** as shown in one of the quotes below.

*Yes I am considered to be someone knowledgeable now that I am also considered at gatherings, and also people would want to hold their gatherings at my homestead because it is always kept clean. (#17, aged 27)*

### 9.1.2.4. Value of Social Recognition and Respect

To be known by others carries valued social prestige. The weekly community health sessions have provided a forum for this public recognition (See Section. 3.1.).

Despite the fact that 50% interviewed had no special roles as **ordinary club members**, they all responded positively to the question, *'If you have gained respect is this important to you?'* (See Annex. 13.2.4.). This indicated that they had all achieved some degree of self respect and enjoyed deference from others, even without a key leadership role. One 40 year old was able to analyse the community at large and felt that respect generally for each other had increased, and this in sociological terms would refer to increase in Social Capital (See Section. 3.8) in that it illustrated a high level of trust within the area:

*I get quite a lot of respect from others. Because now everyone is busy doing their own things and nobody actually bothers about*

*others' business so there is quite a lot of respect amongst the community.*

**Observer: Before. How was it then?**

*... like one could have a toilet and the other one wouldn't have a toilet and you could not allow any community member to come into your toilet and use it and also maybe if one is allowed to use the toilet the one other would go and inspect and see if that person has used it properly. Nowadays it is no longer happening that way, We know that even if someone gets into the toilet he knows how to use it. (#8)*

A 70 year old was able to describe how the attitude of the community had changed towards Health Club members.

*It is very important to me as people now regard me as someone who is doing something sensible. Early days, people would laugh at us and ask us why we are wasting our time by going to sit down under a tree,(having a meeting) but now everyone wishes to be a Health Club member.(#18)*

One of the ward co-ordinators enjoys her public recognition:

*Very much. It (respect) is so important to me. Because whenever there is a big meeting, that can be called by counsellors, MPs or so on, they also have to call me. They have to tell me...'We have called you. This is taking place. There is a function'. This and this. And it shows also a respect to me. I feel I am somebody in the area. I am not dumped.(#4)*

The expression 'I am not dumped' means 'I am Somebody', with the perception of being more than an abandoned rural wife (See Section. 4.2.3).

#### **9.1.2.5. Comparative status of rural and urban lifestyle**

For many years there has been a drain from the rural areas as people seek work in the towns. There has been a common perception that a large material gap exists between rural living and the standard of living in the towns, where western goods are seen to make life more appealing. Women in town usually consider themselves smarter and more fashionable. The original wives who are left in the rural homesteads to keep *the musha* (rural ancestral home) going, have often been 'dumped' for smarter 'second wives', which their husbands often take on in town. In addition rural women are often socially embarrassed when friends and relations visit them from town, as they are

aware that their hygiene standards are inferior as many homes have no facilities such as a latrine. In order to understand if this perception of social inferiority has been altered after the many changes that have taken place in the lives of Health Club members, the question was asked, 'Do you think you are on the same level as a person in town?' (See Annex.13.2.5.) Surprisingly, this question was often met with a stream of laughter or a strong exclamation of achievement, such as this 60 year old who boasted,

*I am far much better than the townspeople. When they come and see me they will see how much I have changed. There is a tremendous change. So I can not compare myself (I am better than them). They are afraid of me...*

If someone is 'afraid of you', it indicates they feel threatened by a superior. Many mentioned that they were able to control their own lives as they owned their own land and could source their provisions by their own labour, while the people in town were dependent on buying what they needed. At the time of the survey, the minimum wage could not provide enough for the staple food for a family. Many were paid less than the cost of the transport to get to work, and unemployment was over 70%. Therefore those on the land were able to subsist, and were also given food aid by external agencies in the 2003 drought. Apart from the comfort of electricity none could mention any advantage to living in town and they were content to remain in their village.

*But when we come to the really life. In town they have got ..what can I say... they are a bit ... higher on us because they have got electricity and so forth whereas we just use fire. That is the only difference. But life. Really living, I think we are better. Like now I can work for myself. In town it is not easy to get a job. When I go to town I don't even get a cent from somewhere but here I can make money, from my garden, from my fields from selling this and that, and I can get most of the food free, because I have ploughed. So I prefer being at my home than in town.(laughs) (#4)*

The only male respondent with 'O' levels spoke of less material reasons for staying in the rural areas:

*It is more or less the same. Even better. Yes, because when you are out here you have a good environment unlike in town (with) air pollution; here we are quite free. You are taught in the Health Clubs to plant trees around and things like that. Shrubs around the place and you know that idea makes you feel quite energetic. (#1)*

The youngest respondent was a mother of 27 with 'O' levels. From her age and education it would be reasonable to expect her to hanker after town life. In fact, she felt living standards in town were comparable with changes they had made in their home.

*I think we are now at the same level since in town they have safe water and we also have safe water. They have clean toilets and we also have clean toilets. And also they have electricity and here we can also have solar electricity. (#14)*

#### 9.1.2.6. Home improvements through self reliance

An indicator of the levels of personal achievement (which may have been due to motivation through the changing of values within the Health Club membership), were taken as the number and type of home improvements that have taken place without external financial support of subsidy (i.e. self reliance). The question was therefore asked, 'What changes have you made to your compound with your own resources?' (See Annex.13.2.6.) This was intended to refer to financial resources, however many cited non-material improvements through their personal efforts.

**Table 37:** *Perceived changes within the home due to CHC activity, Makoni (2004)*

CHANGES	EXAMPLES	Number of responses	% Total responses
<b>Environment Facilities</b>	Nutrition garden	9	
	Family well /borehole	9	
	Clean environment	1	
	Compost pit	1	
<b>Sub Total</b>		18	32
<b>Home improvement</b>	Latrine	8	
	New living rooms	4	
	Shower/bathroom	3	
	Pot rack	4	
	Decorated kitchen	8	
	New cooking utensils, Sink, Individual plates		
<b>Sub Total</b>		27	48
<b>Hygiene</b>	Wash hands	1	
	Use latrine	1	
<b>Sub Total</b>		2	4
<b>Attitude</b>	Good knowledge	2	
	Order/smartness	7	
<b>Sub Total</b>		9	16
<b>TOTAL</b>		56	100

Some had benefited from the three bag cement subsidy that some graduated members received, but many had built toilets without subsidy, subsequent to the project ending. All felt their latrines they had been built 'with their own resources' as they had paid for labour and contributed the construction costs.

*We managed to construct a toilet. My husband managed to put on the roofing materials. Me and my children - we dug the pit. We got some of the cement from the health personnel. (#12)*

There had been no subsidy for protected family wells, but eight families had dug and lined **protected family wells** at their own expense. Of interest is how many reported having **extended their living quarters** from one family bedroom to extra rooms for the children.

In summary there were 32% of the mentions focused on changes to the compound (nutrition garden, borehole, compost pit), 48% were mentions of home improvements (new rooms, kitchen equipment) that had been made, 4% were mentions of hygiene behaviour change (hand washing and clean latrine) and 16% were mentions of a new attitude and knowledge (See Table 39, above). These findings cannot accurately quantify home improvements but are used as indicators of the perceived changes due to the club. For example, all the respondents are likely to have a pot rack but only four considered it worth mentioning or had remembered to include it. Some items mentioned, (paying for school fees, helping others, or playing netball) were not home improvements as such, but important in terms of perceived change in lifestyle.



**Fig 22:**

*A Health Club Member taking drinking water with a home made tin ladle, from a covered bucket. Many members have invested considerable time and effort decorating their kitchens: plates and cups are displayed on a dresser moulded in clay into the walls of the mud hut, and highly polished. Fuel efficient stoves and seats for women as well as men are also a new modification to the traditional kitchen layout, with a central fireplace and a mat for women on the floor.*

*I built my own toilet without outside help and put up an outside shower, and a family well and I have a nutrition garden, in fact two of them, and I grow vegetables, sweet potatoes and maize. I am sending my children to school.*

**Observer: To build the toilet, how did you afford it?**

*From those sales. (#19)*

*I have built my own toilet and my own protected well, all with my own money, and now I am anxious to build a bathing room. I have decorated my kitchen, (Fig 40) I have brought plates and I have beautified it. Outside I have got a nutrition garden which is flourishing.*

*(#7. aged 48)*

To fully comprehend this achievement, these achievements should be placed in the context of general economic decline (See 4.1.9). and a two year drought between 2001-2003, when over half the country has been receiving international food aid.

One surprising revelation was from a woman of 70 years, with only two years of schooling who claimed that she was trained as a builder and '*helped other to build their own Blair latrines.*' (#18)

### **9.1.3. THE EFFECT OF THE CLUB ON THE FAMILY OF THE MEMBER**

In the Shona culture, women are the main custodians of family care and therefore their knowledge of preventing disease, of good nutrition and ways to ensure good health through safe hygiene practices will impact on the rest of the family. To put this supposition to the test and to understand the dynamics of the Health Clubs within the homes, women were asked how their relationship with their children and husband had changed as a result of their membership of the Health Club. Traditionally women usually live in the husband's home area, and the need for approval from in-laws is a constant source of anxiety for many wives (See Section 3.3.). Therefore it was considered a good indicator of self worth to find out how much women felt that they were appreciated by their husband's family.

#### **9.1.3.1. Relationship with Spouse**

One of the determinants of health is a women's ability to make informed decisions that will positively affect her family's health. This ability is often undermined by the

husband's control of his wife and, as this may prohibit her performance, a women's self confidence to be able to pursue her own objectives is important. The ultimate aim of the Community Health Club is to provide an opportunity for the empowerment of women through knowledge and skills and this is reflected in the appreciation and respect they receive from their family.

Before considering the attitude of the husband towards his wife, we must bear in mind the cultural norms for correct behaviour in marriage. Given the traditional control of women by their husbands (See Section 4.2), the relationship between husband and wife is one of the measures of effectiveness in ascertaining the ability of the Health Clubs to modify values and cultural norms and to enable women to become more equal partners with their husbands.

The question, '*How has the club changed your relationship with your husband?*' elicited highly significant indications that the power relations between women and their husbands have shifted to enable women to make decisions. No less than half the women mentioned the shift in their husbands' attitude to their club-going. This was described as an **initial reluctance** or at times **outright disapproval** in the beginning, to **strong approval** and **encouragement** at the present time. Six attributed this to their husbands having **seen hygiene changes** in the home of which they approved, and three mentioned that their husbands were pleased by their **ability to contribute financially**. The pleasure that this respect brings to women is illustrated below, by a 51 year old woman who laughed as she explained,

*Initially my husband would agree (to let me go to the club), but reluctantly. But as time went on, he enjoyed a good relationship (with me). I remember one day he actually told me to go and join the others and he could go and get thatching grass.(her normal task) He actually brought me my shoes because I didn't have shoes at that moment! (#12)*

Other husbands showed their support by **reminding women to go to the club**, and similar stories to the one below, were repeated by eight respondents:

*It was difficult at the beginning for me to come to the health sessions because my husband was not happy. But after that when I came here and got the information and went back home and discussed with him and practised what I learnt and he developed to like it and now he is supporting me and he tells me 'You are late. You must run. You must go.'*

**Observer: In terms of respect for her how much has it changed?**

*I have gained more respect from him because now I make money from the sales and I support my family and he is quite happy about it.*

The only male respondent provided an insight into how the wife is becoming a decision maker and **respected for her own opinions**, and an interesting companion rather than merely providing household services.

*There is quite a change.*

**Observer: Why?**

*Because now you can be able to sit down and discuss about (things). You know some of the things not only within your catchment area but elsewhere and compare. Even world wide global.*

**Observer: You talk about some big issues?**

*Yes.*

**Observer: And before?**

*No, no, no! We never had such discussions. I think the Health Clubs came in to give us the light because we are used to meetings now. Unlike the meetings we normally have in the village whereby we talk about what we normally do there. The Health Clubs maybe you get new ideas from new people from elsewhere. You get friends, like some of the friends you bring for us down here and we introduce new things, like bee keeping ..hm.. like what? lots more.*

**Observer: So you are talking about outside people coming with fresh ideas. Is that what you like ...**

*Not necessarily outside people coming in with new ideas but I would say it is helpful training with outside people because then you get new ideas which can contribute to what you have.*

**Observer: What about with your family, have you noticed anything?**



Yes. I have noticed a lot of change. A lot of change. Because my wife now would be able to sit down ..er .. we are able to discuss. What I am trying to say is hm... I give her these gender issues I am talking about whereby we can also take a role of discussing about something and I listen and I don't argue. We actually debate on the thing.

**Observer: So you don't mind now if she stands up to you and says, 'I know better?'**

*No I don't mind really.*

**Observer: And before you would mind that?**

*Yes because before it was cultural.*

**Observer: Traditional?**

*Yes. It was traditional. Some one would say 'Ah no, why develop the person like that!' But now I say 'Ah no, man. Look! We are promoting this gender issue and you have got to be unafraid to say whatever is promoting the family'.*

**Observer: She in the club?**

*She is part of the sewing club*

**Observer? So she did the health sessions with you?**

*She did. (#1)*

Table 38. below, summarises the different categories that have been used to reduce the interviews to a few concepts. These follow the three key motivations described by McClelland (1967) (See Section 3.6) as the main motives that drive the human mind.

- The **Need for Affiliation** has been divided in those statements mentioning the spouse in a supportive, respectful or appreciative role;
- The **Need for Achievement** concentrates on either indicators of cognitive achievement or those practices within the home that result from Health Club recommendations;

- The **Need for Power** is divided into statements of status that show the wife as a role model, or that show independent decision making or financial independence.

The analysis shows that the Health Clubs have impacted on the husband and wife's personal relationship, foremost in the sphere of affiliation. There were 15 instances of which 40% of the total number of responses indicated a closer and more caring relationship. Secondly, 52% of the mentions are concerned with achievement of cognitive and practical skills that have shifted the relationship. Lastly 22% of the mentions relate to instances that indicate that the woman is being empowered and that this has been accepted by her husband. However all three aspects are interrelated as achievement will affect the need for power as more confidence is gained and a wife's self efficacy is raised. These aspects will be analysed in more detail in the discussion (See Section 10.10).

**Table 38:** Changes in husband's attitude and behaviour, related to wife's needs, Makoni (2004)

WIFE'S NEED	HUSBAND'S ATTITUDE	EXAMPLES OF NEW ATTITUDE AND BEHAVIOUR	TOTAL #	%
<b>AFFILIATION</b>	<b>Supportive</b>	New attitude to her, encourages, Reminds her to go to the club, Helps with domestic chores, Allowed to travel to CHC meetings, Encourages her to fulfil herself	8	
	<b>Respectful</b>	Listens to wife, doesn't dominate wife, Equal respect for her knowledge,	4	
	<b>Appreciative</b>	Shows affection, proud for wife, Takes pleasure in being at home	3	
<b>Sub Total</b>			15	46
<b>ACHIEVEMENT</b>	<b>Cognitive</b>	Discusses with wife as intellectual equal, 'world wide global', new ideas, new people, debate,	4	
	<b>Practical skills</b>	Impressed by good hygiene practices, Impressed by new skills and abilities	6	
<b>Sub Total</b>			10	32
<b>POWER</b>	<b>Role Model</b>	Pleased to have a wife who is an example to others, Admiration from others	1	
	<b>Independent decisions</b>	Acceptance of equal decision making, Promoting gender, changing tradition,	2	
	<b>Financial independence</b>	Pleased by financial contribution, Easing load of supporting family,	3	
	<b>Common unity</b>	Meetings, share ideas	1	
<b>Sub Total</b>			7	22
<b>TOTAL</b>			32	

### 9.1.3.2. Changes with children

A mother in Shona society is expected to control over her young children who should obey without question and do their own share of the household chores. The difficulty in a society where values are changing rapidly due to western schooling, is that children tend to be more informed than their parents and in most cases are more literate. Therefore whilst they are expected to defer to adults, the adults are more ignorant than their offspring. This sets up an uncomfortable dynamic of overt cultural respect but inward disregard of their parents, particularly of their mother. It was of interest to see whether the Health Clubs could balance this situation.

**Table 39:** *Perceived changes in child care and children's attitude and behaviour related to mother's needs, Makoni (2004)*

MOTHER'S NEED	CHILD CARE	CHILDREN'S BEHAVIOUR	MENTIONS	
			#	%
AFFILIATION	Feels supported	Help mother	4	
	Feels respect	Admire mother	3	
	Feels appreciated	Grateful to mother	7	
<b>Sub Total</b>			14	39
ACHIEVEMENT	Ability to impart knowledge	Learn from mother	5	
	Ability to organise home	Change hygiene	10	
<b>Sub Total</b>			15	42
POWER	Controls disease	Children feel healthier	1	
	Control hygiene standards	Compliance in hygiene	3	
	Control of finances	Benefits	3	
<b>Sub Total</b>			7	19
<b>TOTAL</b>			36	100

In answer to the question, 'How has your relationship with your children changed as a result of the club activities?' answers again formed a strong pattern, with a consistency of a few strong themes. As children are expected to help the mother, four respondents indicated that many of the more arduous, or time consuming chores, like cleaning the latrine or sweeping the yard, had been handed over to the children. This was taken as children being **supportive** to their mother. Three also mentioned that they had the **respect** of their offspring, and seven mentioned that their children were now **happy** with the changes set off by the clubs, and credited this to the perceived **reduction of disease** such as diarrhoea and malaria in the family (See Table. 41. above). These responses together comprise 39% of the mentions showing that Mother Need for **Affiliation** has been positively affected by the activities of the club.

The mother as a teacher of children was a strong theme and this has been categorised as meeting the Need for **Achievement**, with 42% of the total mentions indicating that this need has been fulfilled more than others. Of this, there were ten mentions that

children had now become well **trained** in hygiene practices and five mentioned their role of **teaching** their children. Three went further to mention how children could perform unsupervised indicating that their teaching had been successful and was sustainable without their authority. Only three mentioned their ability to provide **financially** for their children and one in particular took pleasure in being able to give her children little treats, as well as paying for school fees. One 40 year old mother with six children was proud to show how boys, as well as girls, were helping equally with household chores. Personal authority and control over resources were categorised under the Need for **Power**, and this received the least mentions with 19%.

*I am now staying with my boys. But they also had to learn to be hygienic. So much that every morning I don't have to tell them to start sweeping. Everyone knows that they have to sweep, so that the compound stays clean. This is before they go to school. They also have to spread their bed and look for the broom and sweep the compound.*

**Observer: Is there any difference between the boys and girls?**

*They all do the same type of household chores. (#8)*

A grandmother of 72, looking after 5 grandchildren, as well as an orphan, proudly displayed how she has inculcated her hygiene standards into her charges:

*They know what I want. They know what health practices there should be. At times one will say 'Can I have food?' The other one would say, 'Have you washed. The grandmother wants you to wash before you have food'. So we understand what should be done. (#15)*

The Need for Affiliation, Achievement and Power have all been met to some degree. However these interviews indicate that the most 'satisfied need', is the Need to Achieve. If a woman feels she has succeeded in bringing up her children well, she has a strong sense of achievement as a mother. The Need for Affiliation is met by the increased love and respect shown to her by her children. Although half as many mentioned aspects for the Need for Power, the family dynamics have been significantly altered by the fact that the mother can now provide financially and feels she has some effect on controlling disease, thus ensuring her children's survival. That the children are well socialised to perform what they have been taught without the need for parental discipline is a mark of this confidence.

### 9.1.3.3. Relationship with in-laws

As mentioned above a wife's relationship with her husband's parents is crucial to her happiness because they have the power to make her husband critical and discontented with her performance. With the traditional custom of the bridegroom's payment of *lobola*, bride wealth, to secure a wife, the parents of the man often have to assist the husband to pay for his future wife, and accordingly have invested in her as a practical asset to the family fortune. A lazy, gossiping wife is routinely criticised but a dutiful, caring homemaker is, of course, the ideal (See Section 4.2.4).

The question, 'Has your relationship with your in-laws changed as a result of the Health Club?' was omitted with five respondents, two had no living in-laws, whilst two, being grandmothers refer to their young daughter-in-laws. However the remaining 14 answers still form a strong pattern (See Annex. 13.3.3.), with 13 women describing ways in which the in laws were **appreciative**. Only one 48 year old woman cited a **jealous** reaction to her good housekeeping which was seen as wealth by her mother-in-law rather than her own efforts as raising her living standards by good practice (an example of the PhD Syndrome, See Chapter 5, Table 11).

*(They think) I am so high and rich and what? They are half - half. At times they change and they think I have a lot of money and I don't have .*

**Interpreter:** *They seem not to be very happy. They are a bit jealous (#7)*

**Supportive** in-laws were mentioned four times, in that they encourage the wife to go to the club, and in one case in-laws actually assisted the respondent in the fields during the agricultural season. This gesture is a strong indicator as usually the wife must work for the in- laws. Five mentions were made of ways a daughter-in-law is **valued**, and these attributes include a wife who is clever, knowledgeable, doesn't gossip or waste time with neighbours, is constructive and helpful.

*Because of that knowledge I developed to be come very associated with my in laws and my aunts. At times when they are sick I feel I must help them in my house and make sure I care for them the way I think they should be cared for. And when it is serious I make sure that they go to the hospital. I refer them to the hospital and they get treated because now they are respecting me very much. (#13)*

One woman, a Ward Co-ordinator and District Trainer, was able to show how much she was loved because she had been given a cow in appreciation of her caring when her in-laws were ill. This is the highest honour in Shona custom, as women rarely own their own cows. None of the respondents mentioned their earning ability as a reason for the in laws being impressed by them, although this was alluded in the term, 'a very good asset', which conveyed a sense of material gain rather than a positive character attribute, especially as the respondent has already mentioned that her income generating activities had enabled substantial building to be done at the homestead, and that all her children had been taken into the paper making project.

*She is saying the in-laws are now considering her as a very good asset at home because she has got the necessary knowledge and she is not a type of a wife who can just go around in the neighbours gossiping. She is quite responsible at home and she is quite knowledgeable. In fact she is saying she has cared for the relatives of her husband who were sick, two of them, and she was given a cow to thank her for the good work she has done.(#2)*

**Table 40:** Perceived Changes of attitude and behaviour of in-laws related to wife's needs, Makoni (2004)

WIFE'S NEEDS	ATTITUDES AND BEHAVIOUR OF IN-LAWS		Number of Responses	% Total Responses
AFFILIATION	Supportive	Encourages wife to go to CHC, Helps wife in fields	4	
	Respectful	Wife respected as doesn't gossip; Considered clever knowledgeable,	5	
	Affectionate	Liked by in-laws, appreciate her caring, give her presents	2	
	<b>SUB TOTAL</b>		<b>11</b>	<b>55</b>
ACHIEVEMENT	Understanding	Belongs to same club, Shares understanding, Same values with in-laws	3	
	Emulation	Share good practices, Copy hygiene behaviours	1	
	<b>SUB TOTAL</b>		<b>4</b>	<b>20</b>
POWER	Submit to care	Cares for sick, survival of family	2	
	Trusting	Give her children to bring up, Responsible mother, grandmother	2	
	Appreciative	Considered a good family asset	1	
	<b>SUB TOTAL</b>		<b>5</b>	<b>25</b>
AVOIDANCE	Rejection	Jealous, critical	1	5
<b>TOTAL</b>			<b>20</b>	<b>100</b>

The 72 year old grandmother was proud to be able to say that her own grown up children (probably working in town) trusted her with their children as her standards were high. The practice of sending children back to the rural areas to be socialised into Shona customs is a strong pattern in Zimbabwe.

*They (wives of their sons) are very happy with it. They tell me that the grandmother is having health practices. They know I will look after the children well and feed them well. Sure! (#15)*

Once again (Table 42), the need for Affiliation has been the most positively affected by Health Club activity with 55% of the total references. This emphasises how the Health Clubs can play a role in developing understanding, respect and common unity in the family and wider society. In this case as well the Achievement of knowledge and hygiene skills (20%) also helps to unify which leads to more affiliation. The need for Power (25%) in this context refers to the control the mother's power over the environment in terms of physical survival, as well as her financial and personal independence to control her own life, without the traditional cultural restraint.

#### **9.1.4. PREVENTING AND CURING DISEASE**

As each member has attended more than 20 health sessions it is assumed they will know about prevention of communicable diseases. In 2003 herbs began to be propagated and distributed to people living with HIV/AIDS. A wide range of opportunistic diseases are now being treated apparently successfully with locally grown medicinal herbs according to the perception of the co-ordinators who report monthly on their home based care activities (See Annex 3). Therefore it is to be expected that many respondents may also know about curative home remedies.

The question, 'Has your family been protected or cured from sickness as a result of this club?' was posed and the interviewer was asked to probe for a concrete example if claims were positive. This question provoked enthusiasm from all respondents who could all illustrate ways in which the club had helped their family or friends (See Annex.13.4.1). This first hand reportage was convincing in its sincerity, with some claiming to have cured where health centres had failed.

*Since I joined this club, to tell the truth, I haven't even come to clinic. Especially myself, my husband, my children... maybe one... the youngest one, who used to cough. But I used Artemisia. There is no more coughing in my house. No diarrhoea. No what? It improved a lot. If you see my children, you can just see that this one is healthy.*

**Observer: So you know a lot about curing with herbs?**

*A lot. A lot... (laughs, joking) ... I am a herbalist now. Even a dying person can rise now and I give her herbs!*

**Observer: So you have helped to cure diseases with herbs? For an example?**

*I had an another boy, a young married man, who had HIV, I can say, because you can even see him and you can see this one has HIV and he had lumps and wounds somewhere here in the genital parts, like boils and they were discharging and smelling. We used German Comfrey and garlic to drink and to put on the wounds. It has cleared off and he has gone back to work.*

**Observer: Had he come to the hospital first?**

*Yes, he went to the clinic here in the resettlement. He was taking his tablets but his wounds didn't heal. But when he was taking his tablets but we are also treating him with the comfrey and what? In two weeks time he was OK. (#13)*

Health Club members, routinely mentioned the fact that diarrhoea is under control due to their interventions at household level (See Annex 13.4.1.). The literature supports the fact that recommended hygiene practices, if performed routinely, may significantly reduce diarrhoea (Feachem, 1984). It is also the only complaint to have been mentioned by respondents both in connection with their ability to prevent it by good hygiene, as well as the knowledge of how to cure it with herbal remedies. Although they have been taught how to make salt-and-sugar solution (SSS) to re-hydrate, there were no mentions of this treatment.

**Table: 41.** Perceived changes in family health and hygiene, Makoni (2004)

PERCEIVED CHANGES	# RESPONDENTS MENTIONING (N=17)	% RESPONDENTS MENTIONING
Knowledge of general hygiene	6	35
Knowledge to prevent disease	17	100
Good hygiene practices	3	18
Good nutrition	2	11
Used medicinal herbs	14	82
Has not used herbs	3	18



It was notable that seven respondents out of seventeen made a strong case that they believed malaria to be under control in their home (See Annex. 14), despite the fact that it has been rising annually in Zimbabwe and is now endemic in many areas (See Section 4.5.2, Table 9). Despite general cynicism that malaria cannot be adequately rolled back at household levels by such simple practices as cutting grass around the homestead and emptying water from breeding grounds. In the Health Clubs, according to reports in the interviews, (See Annex. 13.4.1.) some members burn mosquito coils or cow dung around the compound at night. They also cover themselves well in the evenings, and some, but not many, have mosquito nets.

*Before joining the club I used to get problems with malaria every year. Now there is quite some change. Now I have gone for four years without any malaria incident at my house. (#18, aged 70)*

An interesting issue was raised by a mother of 60 who felt that her mentally disabled child had benefited by her knowledge of how to care for him. In addition there were two cases of asthma having been reduced.

*Ah! This knowledge helped me, very, very much. All these sicknesses have reduced very, very much. This knowledge has helped me and I have practiced it and the results are reflected by the way my family is surviving.*

**Observer: Which diseases particularly?**

*Coughs, asthma. One was mentally disturbed and he is better. Before this child used to cough too much, I think because of dust. I didn't clear up very much (before). But now because I do clear and then I clean my place. (#13)*

Many herbs were mentioned by name in connection with a cure that has been witnessed or actually affected by the respondent herself (See Table. 44).

Every respondent was able to affirm confidently that she had **seen changes in the health status of her own family**. All seventeen respondents attributed improved health to their **increased knowledge**, and could mention one or more diseases that had been reduced in their family. Of this number 82% had direct **knowledge of how to use herbs** and **could provide an example** of their own curative powers; in addition to knowledge of herbs 35% mentioned something associated with **knowledge of good**

**hygiene practices** in prevention, although this was not suggested by the question that focused on the curative aspect of disease.

**Table 42:** Medicinal herbs used by CHC members, Makoni District, (2004)

Type of Herb used	Condition Treated
German Comfrey	Hypertension, genital sores, coughing, painful legs
Wormwood	Diarrhoea; stomach pains
Parsley	Urine infection
Barbinella	Stomach problems, burns.
Artemisia	Stomach problems; coughing; diarrhoea; asthma
Garlic	Genital sores
Thyme, Comfrey, Lavender	Diarrhoea
Lavender alone	Diarrhoea, genital sores, flu/headache
Unspecified herbs	Terminally ill with HV/ AIDS
Good nutrition	HIV/AIDS
Sweet Basil	Unspecified
Herbs & honey	Coughing
Rosemary	Unspecified
Mint	High blood pressure

**Table 43:** Conditions treated by CHC members with herbs, Makoni (2004)

CONDITIONS MENTIONED	# CHC MEMBER
	HERB* USAGE
Urine infections	1
Stomach problems/ pain	2
Wounds	1
Rashes	1
Burns	1
Coughing	3
Breathing difficulty/asthma	2
Painful legs, feet	1
Genital sores	1
Headaches	3
Flu	1
Diarrhoea	2
High blood pressure	3
HIV/AIDS	1
<b>14 conditions mentioned</b>	<b>23</b>

\* Herbs used indicated in Table. 44. above

Three respondents out of seventeen (18%) mentioned an association with home hygiene that they felt accounted for a **lowering of the disease**. Only 18% had not actually used herbs but still **knew about them from others**. Two respondents (11%) mentioned their use of **good nutrition**, and one poignant story was told how the quality of life was improved for a terminally ill AIDS patient. A 63 year old mother tells of nursing her grown up child, and it was a compensation to her that she could relieve his symptoms.

**Table 44:** Conditions claimed to have been prevented by good hygiene practice, Makoni (2004)

CONDITIONS MENTIONED BY RESPONDENTS	USE OF GOOD HYGIENE PRACTICE*
Diarrhoea	5
High blood pressure	
HIV/AIDS	
Malaria	7
Diarrhoea	
Mentally disturbed	1
Bilharzia	1
Eye infections	1

\*Good hygiene practice indicates all the CHC recommended practises (See Section 5.5.3. )

*I am only afraid of the HIV, but other diseases, I have a healthy family.*

**Interviewer: Do you know about curing with herbs?**

*I know about herbs because of coming here. I put the herbs in my tea, in porridge, 'maheu'. (Traditional non-alcoholic fermented drink for children)*

**Interviewer: Have you helped to cure diseases with herbs? Examples?**

*I helped my child who was sick and made him to survive longer and it helped, although he died but it helped ....(to make him comfortable). He was sick for a long time but he looked very healthy.... Nutrition and herbs, it helped. (#6 aged 63)*

#### 9.1.5. THE EFFECT OF THE CLUB ON THE NEIGHBORHOOD

One of the fundamental aims of this study was to find out if there has been an increase in Social Capital (See Section 3.8) in the area. Therefore it is of key importance to assess whether the activities that take place within the Health Clubs go further than simply accruing benefits for the members themselves.

To find out whether the clubs activities spill over into the community and provide services to the rest of the village, a number of different questions were asked, all focusing on the relationship of members to non-members. First of all a personal perceptive was elicited by the question, *'How has your relationship with neighbours or friends changed?'* Then the respondent was asked to define if there was a difference between their friendship with members and non-members. Probing further, the following questions were asked, *'How are club members different from non-members?'* and *'Why do you think some people didn't join the clubs?'* Finally, some concrete examples were elicited by the question, *'Do you help each other outside club activities?'* referring to voluntary work that may have developed outside the regular club business. The following sections deal with the responses of each of these issues separately.

#### 9.1.5.1. Relationship with friends or neighbours

The question *'How has your relationship with neighbours or friends changed?'* was asked. Of the fifteen responses, eight respondents said that **all the neighbours were part of the club** implying that they understood each other, and one articulated the fact that they *'shared ideas and spoke the same language'* (#20). Eight of them mentioned that they had **influenced people to join the clubs**, by sharing their ideas and encouraging them to improve their hygiene. Of these, four said that they had noted that their neighbours were **copying their practices and facilities**.

*A lot of my friends they came to join the other Health Clubs groups.  
And also the one that didn't join started to copy whatever I was doing  
to improve my compound. (#17)*

**Table 45:** Changes perceived by CHC member to association with friends and neighbours, Makoni (2004)

DEGREE OF ASSOCIATION WITH FRIENDS	PHRASES USED BY 15 RESPONDENTS	#	%
Influenced to join	Share ideas, persuade to join, promote change	8	31
All joined	Most neighbours are already in club	8	31
Imitation	Copy practices, emulate CHC members	4	14
Respect/ harmony	Don't join but accept differences	2	8
Curious	Want to know what is happening, show interest	2	8
Jealousy	Want to see someone suffering, pull her down	1	4
Speak same language	Understand each other/ common unity	1	4
<b>TOTAL</b>		<b>26</b>	<b>100</b>

Of the five respondents that did not have all their neighbours in their club, two mentioned that they still received a lot of **respect** from them although they didn't want

to join themselves, and two mentioned that their neighbours were at least **curious** to find out what they were doing.

*I think our neighbours also give us a lot of respect, especially at funerals. Once we have a funeral around, they always call the Health Club nearest to them to do the catering. (#16)*

Only one person mentioned that the neighbours were **antagonistic** at times and bore her ill will for her association with the club and the benefits she had reaped, providing an example of the PhD syndrome (See Section 5. Table 12)

*Yes. It has changed. Some are happy but some are not happy. Because in our African custom some one will just want to see someone suffering and then if your life changes some are not happy about it. (#2)*

#### 9.1.5.2. Social Capital

Social Capital (See Section 3.8.) is taken as the level of support people can expect to receive in their community over and above their individual social network of personal friends or business contacts. The question was asked, ‘Do you help each other outside club activities?’ meaning extra voluntary help that is not part of the weekly meetings to arrange projects, discuss health or compete in sports. This cue was readily taken up and all 18 respondents had many examples to illustrate how the community could support its members, and this ‘help’ was often extended from Health Club members, to the needy and disadvantaged outside the club.

**Table 45:** CHC members’ altruistic activities outside regular club sessions

TYPE OF ACTIVITY	EXAMPLES GIVEN BY RESPONDANTS	Number Responses	% Responses
	Expertise growing herbs,	1	3
Help cure the sick	Give herbs, carers for terminally ill, home remedies, refer to clinic	4	14
Share travel costs	Source goods in town, save bus fares, drought power	2	6
Support the sick	Visit to help practically; chores, firewood, weeding	9	29
Funeral costs	Contribute in cash or kind,	9	29
Hunger / trouble	Contribute food or money, clothes	3	10
Burden of work	Assist in home	1	3
Savings club	Contribute each week for one member	2	6
Total Responses		31	100

### 9.1.5.3. Difference between members and non-members

All of the 16 respondents who were asked, perceived a strong difference in outlook between those who had joined Health Clubs and those who had not. A variety of indicators were identified including a different level of knowledge of diseases; a lack of concern for poor hygiene standards in the home; less house-proud and poor personal presentation.

*They are so different. Even if there is a funeral in this village. If you have to go there and you just watch you will find out this one is different from that. It is just because the one from the Health Club is dressed well and is smart. Even if you go back to their home you just see a very big difference. Those in the Health Clubs they have improved and some others they are trying to copy but it is different from the one who did the lessons. (#4)*

Three people mentioned that whilst non-Health Club members may copy club members in terms of putting up facilities such as pot racks or hand washing facilities or latrines, they are less likely to practice good hygiene as a matter of habit because they lack the understanding that favours long term behaviour change.

*Club members would practice good health practice and this is witnessed by their clean homesteads, whilst the non-members although they would try and copy they wouldn't actually practice as club members do. (#17)*

There is apparently an important difference in their attitude to each other, in that the need for achievement has been aroused and this has displaced the 'PhD (Pull her down) syndrome' (See Chapter 5, Table 11). Club members share their knowledge and do not take exception to correction by others, and *speak the same language*, meaning *they have the same objectives and are united compared to people outside the club* (#13). They are also perceived to be open to change and willing to take advice from others without loss of face.

*There is a difference since a non club member would not even replace a broken down pot rack. One would take quite a long time before replacing it. But as a club member we share experiences with each other, and if we encourage each other no one would get annoyed but would take the idea as a very good idea. (#13)*

Positive reinforcement from peers has enabled the group to change together and pull each other up. Apparently non-members would be typically more interested in gossip when they meet than health issues or project planning.

*Non-members have got quite a lot of misunderstanding amongst them and they spend quite a lot of their time quarrelling; but for us club members, we are always doing something constructive. (#18)*

#### **9.1.5.4. Type of friendship with members or non-members**

With such a strong response echoed by each respondent on the differences that they perceive to have developed as a result of club membership, it is fair to assume that the type of friendship with non-members would be different from the friendship with fellow club members, much the same way as those who adhere to the same church group have more in common from the sharing of experience, belief, knowledge and ideas. This was substantiated by the responses which confirmed that at a deeper level members perceive themselves as very **different from non-members** although superficially they continue to be friends. Five respondents explained the difference in terms of **not speaking the same language**, of which the quotation below explains it best:

*'When you are friends with a thief, you end up thieving' (i.e. Shona proverb meaning 'birds of the same feather flock together'). You don't speak the same language as those who are outside the clubs. Our objectives are very different. What we admire, what we appreciate and what we are doing. When one is not joining (the Health Clubs) the family one doesn't treat it (health) as important. That's where the difference is although we stay together, (in the same area) but it is the **objective** that is different. When I come here to Mr Hayisa (the EHT) and the club members, I am taught things that are constructive, that protect my family and me, so we are not the same (as non club members). (#5)*

A woman of 27, with O levels, (#17) was the only respondent to say that there was **no difference** in type of friendship since everyone was from the same area. Another woman, from the same area, articulated the traditional politeness of Shona culture (See Section 4.2) to remain superficially egalitarian.

*No. When we meet, we don't show like that..."I am a club member and you are not in the club". No there is no difference. We only show*

*we are club members when we are at the club, but when we meet at the church or where... ah no, we don't show... (#4)*

#### 9.1.5.5. Reasons for non-members not joining

A frequent question asked by those encountering the concept of Community Health Clubs for the first time is, 'Why does everyone not join the Health Clubs, and what the reasons are for not joining?' When this question was posed to the respondents, some common sense reasons were cited for why people did not join.

Some husbands had forbidden their wives to go to the clubs for fear of the EHT's sex appeal, as mentioned by five out of sixteen respondents. However, many report that although this was a barrier initially, many **husbands** came to approve of the Health Club once it began to impact on their own living standards. There are many **who did not hear about** the clubs until later and therefore did not understand the objectives and got left behind although in most areas there were opportunities to join at a later stage during the following three years. There are those who are **too busy** and many who live a life split between an agricultural season at the rural home and living with the husband in town when possible. Only one mentioned lack of perceived **material gain**. There were seven mentions of problems of de-motivated people and their negative attitude to the club was described as having no love, no self-esteem, no wish to improve and just **plain lack of interest**. An elderly lady reported her elderly friends were too embarrassed to come as they thought it would be as difficult as school and they feared to show their ignorance in front of younger people.

**Table 46:** Reasons for non-members not joining Health Clubs, Makoni (2004)

REASONS GIVEN	EXAMPLES GIVEN	Number responses	% Responses
<b>Attitude</b>	No self esteem	7	35
	No wish to improve		
	Lack interest; laziness		
	Too difficult like school		
<i>Mobilisation</i>	Didn't know aims and objectives	5	25
	Didn't hear about it		
<b>Husband</b>	Husbands didn't allow them	4	20
	Jealous of wife going out		
	EHT might seduce wives		
<b>Incentive</b>	Didn't see material incentive	2	10
<b>Residence</b>	Not permanently resident in village	1	5
<b>Busy</b>	Too busy	1	5
<b>TOTAL</b>		<b>20</b>	<b>100</b>



## 9.2. PAIR-WISE RANKING MATRIX RESULTS

Ten pair-wise ranking exercises (See Section 7.3.3.) were done to answer two questions:

- *What has changed in your life since joining the Health Club?*
- *Of the things which have changed, which are most important to you?*

The method used for the pair-wise ranking exercise has been described in detail in Chapter 7. (See Section 7.3.3.). The activity involves two stages: firstly gathering suggestions from the participants (Section 9.2.1. below) and secondly categorising them into seven main Needs before ranking them according to their relative value for the participants (Section 9.2.2 below).

### 9.2.1. Suggestions of change from Health Club members

The results from the first part of this activity were drawn from the suggestions from the Health Club Members in answer to the question,

*What has changed in your life since joining the Health Club?*

Each Health Club was split into groups of ten people who were asked to provide at least ten suggestions in answer to this question. The suggestions were then presented in plenary and categorised to avoid duplication. Most sentences contained multiple suggestions, and had to be split in order to categorise them. Categories were provided by using the typology in the Hierarchy of Needs (Maslow, 1954; See Table 50, below). Putting the ten wards together there were a total of 238 suggestions, divided as follows: 32% concerning Safety, 30% concerning Cognition, 21% on Belongingness, 9% on Physiological Needs, 5% relating to Esteem, 3% on Aesthetic issues and only one suggestion relating to Self Achievement.

The consistent pattern that emerged from the suggestions of the ten wards (See Table 46, below) is significant, in that nine out of the ten wards provided a higher prevalence of suggestions addressing the Needs of Safety, Cognition and Belongingness (all between 21% and 32%), while the prevalence of Physiological, Esteem, Aesthetic Needs and Self Achievement were all between 9% and less than 1%.

The striking exception to the pattern was Ruombwe ward, where Community Health Clubs have been operational longer than in all other wards (See Section.6.1.1.). This area has proved to be different from the other wards in each aspect of this study (See Discussion Section 11.3.6). The members of Ruombwe placed a strong emphasis on Physiological Needs (10 suggestions out of 31), and unlike the other wards gave little

thought to Safety Needs (3 suggestions). In addition they showed a higher interest than other areas in Aesthetic Needs, and this was also the only ward that made any reference at all to Self Achievement (See Table 45, below). Mutanda, like Ruombwe, also had a higher number of suggestions for Physiological factors (7), but unlike Ruombwe also had a high number for Safety (13). To understand these dynamics requires further research as these findings pose further questions as to the long term effects of Community Health Club activities. It is likely that the different results in these two wards could relate to the effectiveness of the EHT as latrines construction was amongst the highest in the district during the intervention period in areas where these EHTs were operating. Testing for correlation between the level of latrine construction and satisfaction of basic needs would be useful.

**Table 45:** Categorisation of suggestions from ten group discussions in Pair Wise Ranking, Makoni District, ( 2004).

CATEGORIES OF NEEDS	TEN SAMPLED WARDS IN MAKONI DISTRICT										SUGGESTIONS	
	Ruomb	Mutan	Nyami	Tanda	Tikwi	Dumb	Mutun	Weya	Ngowe	Sanga	Total	%
<b>Safety</b>	3	13	5	13	10	4	6	6	10	6	<b>76</b>	<b>32</b>
<b>Cognition</b>	7	8	6	15	9	3	4	9	6	3	<b>70</b>	<b>30</b>
<b>Belongingness</b>	7	8	2	7	5	2	2	11	4	2	<b>50</b>	<b>21</b>
<b>Physiological</b>	10	7	0	0	3	0	0	0	1	0	<b>21</b>	<b>9</b>
<b>Esteem</b>	0	3	1	0	5	2	0	1	1	0	<b>13</b>	<b>5</b>
<b>Aesthetic</b>	3	0	1	1	1	0	0	0	0	1	<b>7</b>	<b>3</b>
<b>Achievement</b>	1	0	0	0	0	0	0	0	0	0	<b>1</b>	<b>0</b>
<b>Totals</b>	<b>31</b>	<b>39</b>	<b>15</b>	<b>36</b>	<b>33</b>	<b>11</b>	<b>12</b>	<b>27</b>	<b>22</b>	<b>12</b>	<b>238</b>	<b>100</b>

Tikwiri ward stood out in terms of its recognition of Esteem, the only one of the ten wards to mention as many as five suggestions in this category. These results are presented as a comparison to the subsequent part of the exercise, which involved taking the suggestions above and ranking them in a Hierarchy of Needs by pair-wise ranking.

These suggestions reflected the *perception* of the group as to how their lives had changed. It appears from this exercise that Community Health Clubs have had most impact in meeting the Needs of:

- **Safety:** good health, prevention of disease, good hygiene
- **Cognitive:** learning, knowledge, understanding
- **Belongingness:** getting together, socialising, common unity

### 9.2.2. The ranked priorities in Makoni District

The next stage of this exercise answered the second question:

*Of the things which have changed, which are most important to you?*

This provides an insight as to whether the findings from the first stage above, (what CHCs have *done* for the community), actually reflected the *priorities* of the people in the intervention area. To find this out, the groups together were asked to respond to each pair of Needs and select the one which was most important to them.

A matrix was drawn on the ground with the Needs placed in a line along both the x and y axis (See. Section 7.3.3, Table 20). The suggestions used in the first part of the exercise, (See 9.2.1. above) were collected together and using the response of the whole group were assigned to one of the categories of Needs. A facilitator called out each pair of needs in turn, and the choice of which was most important, was made orally by the whole crowd. If the choice was not clear by the strength of the oral vote, a vote was taken by show of hands. One of each pair was selected until the matrix was complete (See Section.7.3.3.). A symbol of the Need selected was then put in the appropriate square (e.g. a bunch of leaves if **Belongingness** was selected). Once this was done the number of symbols for each Need was counted and the Needs were ranked according to score.

A score for ranking was done in two stages: firstly from the matrix of each Health Club in the ten wards, which gave a ranking of one to seven in each Ward (See Table 50). If two needs tie-scored, they were both given the same score, and the next place was missed (e.g. See Mutanda. Table 47.). The highest score was ranked first: 7=1<sup>st</sup>, 6=2<sup>nd</sup>, 5=3<sup>rd</sup>, 4=4<sup>th</sup>, 3=5<sup>th</sup>, 2=6<sup>th</sup>, and 1=7<sup>th</sup> rank. The ranked positions for each of the seven needs were then added and the result gave the ranking for the whole ten wards.

### **9.2.3. Findings from the matrix pair-wise ranking exercises**

The ranking of the relative value of the seven Needs for the ten wards is as follows. Safety was ranked first with 21%, indicating that protection from harm and disease had been perceived as most important. Ranked a close second to Safety, was the Cognitive Need (20%) showing the strong value placed on learning. At 17%, a close third, Belongingness indicated the high value placed on common unity and socialisation. There is a larger gap between the top three ranks and the lower four ranks. Aesthetic Needs (12%), the Need for Esteem (11%), Physiological Needs (10%), and Self-Achievement (9%).

Once again, (as with the group suggestions shown in Table 46 above), a consistent pattern emerged from all ten wards, with 70% rating Cognitive Needs second after Safety; whilst two wards rated Cognitive higher than Safety. Only Weya ward rated Belongingness first, with Cognition second and Safety third. Aesthetic Needs were

voted 4<sup>th</sup> rank by 50% of the wards, whilst some wards voted Esteem, Physiological, Achievement also at 4<sup>th</sup> position.

**Table 46:** Hierarchy of Needs from Community Pair-Wise Ranking in 10 wards of Makoni, (2004)

NEEDS	RANKING IN TEN SAMPLED WARDS										SCORE POINTS	
	Ruomb	Mutan	Nyami	Tanda	Tikwi	Dumb	Mutun	Weya	Ngow	Sanga	TOTAL	%
<b>Safety</b>	7	7	6	6	7	7	7	5	7	7	66	21
<b>Cognitive</b>	6	6	7	7	6	6	6	6	6	6	62	20
<b>Belongingness</b>	6	6	5	5	5	5	5	7	5	5	54	17
<b>Aesthetic</b>	4	2	4	4	3	4	4	3	2	7	37	12
<b>Esteem</b>	1	3	4	3	4	5	4	4	4	4	36	11
<b>Physiological</b>	4	4	2	3	2	4	4	3	4	4	34	10
<b>Achievement</b>	2	2	2	3	2	4	4	3	2	4	28	9
<b>Total</b>	<b>30</b>	<b>30</b>	<b>30</b>	<b>31</b>	<b>29</b>	<b>35</b>	<b>34</b>	<b>31</b>	<b>30</b>	<b>37</b>	<b>317</b>	<b>100%</b>

Physiological Needs, (interpreted as the need for basic comforts: water, food, sanitation, housing), dropped further in this half of the exercise from 4<sup>th</sup> rank to 6<sup>th</sup> rank. This is an unexpected outcome, as it would be reasonable to assume that these basic comforts would be highly sought after. However it appears that basic comforts are less important to Community Health Club members than other more psychological needs of safety, knowledge and community. This perception may also reflect an understanding by the community themselves, that the provision of basic facilities such as water and sanitation will be of little value unless there is an understanding of how to use these facilities to minimise infectious diseases. Therefore they note that Physiological Needs (water and sanitation) are contingent on Safety (disease prevention through hygiene), Cognition (Understanding) and Belongingness (working together), and therefore it was voted as being less important.

As surmised by Maslow (1954), Self Achievement remained the least salient need, and there is no exception to this pattern in the ten wards. Women consistently voted that their own need to achieve is the least important of all the options presented.

#### 9.2.4. Analysis of Hierarchy of Needs in Makoni District

Putting the results of the two halves of the exercises together, we can match them in terms of what is *most wanted* by the community and how these *needs are met* by the Community Health Clubs. (See Table 45 and 46). This comparison shows that:

- Safety is the most salient need in the community and that this is the Need most met by the CHCs in providing a network of support, prevention from disease and improved chances of child survival.

- Cognitive Needs are the second highest priority to Safety Needs, both in the suggestions from the groups (showing this had been one of the main benefits of the clubs) and from the pair-wise ranking, indicating that this need was a high priority.
- Belongingness is ranked third in each case, again showing that the clubs are meeting a perceived need by promoting common unity and togetherness.
- Physiological Needs were not mentioned in six of the wards, but after discussion in the pair-wise ranking it has dropped to sixth place in the hierarchy.
- Esteem Needs were not mentioned by four of the ten groups in their suggestions and it has dropped to fifth place in the ranking, as opposed to third place in the classic Maslow (1954) Hierarchy.
- Half of the wards did not mention Aesthetic Needs but after the discussion they were voted into fourth place, with just a few more votes than Esteem, Physiological and Self Achievement.
- The only Need to remain in the same position as in Maslow's Hierarchy is Self Achievement (Self Actualisation), which is confirmed as the least salient need in this community.

### 9.2.5. Bias and Objectivity

The problem of consistent interpretation of the variety of suggestions into discreet categories was the real difficulty with this research. 'Safety' was generally taken as protection from disease and misfortune, thus suggestions referring to good hygiene were put in this category. However, although knowledge can also protect from disease as it may affect behaviour, the health promotion sessions were usually categorised under Cognitive Needs as they were considered to be educational. The income generation benefits were usually categorised under Safety because, it was argued, the sale of produce provided a dependable income and enough food for the family, thus providing a safety net. As women are often secondary providers, (supplementing the main income with farming activities) income-generating projects were categorised under Safety rather than seen as a basic Physiological Need. Safe water and good sanitation are known to protect people from disease and yet sometimes they were categorised under Safety and sometimes under Physiological, depending on how the suggestion had been phrased and how the group chose to categorise it. This nebulous definition may be the reason for the Physiological Needs, (Basic Needs such as water, sanitation, good housing) being accorded fifth place when it is logical to assume that it is the primary requirement. Alternatively, this repositioning may be accurate, because in fact the intervention did *not* provide a large amount of assistance in terms of material benefits, (although over 3,000 latrines were built between 1999-2000). In areas where EHTs had been the most productive (Ruombwe and Mutanda) Physiological Needs were accorded the highest score. However, this may not be a consistent association as the EHT for Mutanda also was operational in Nyamidzi ward which accorded no weight at all to Physiological Need (See Table 51, above).

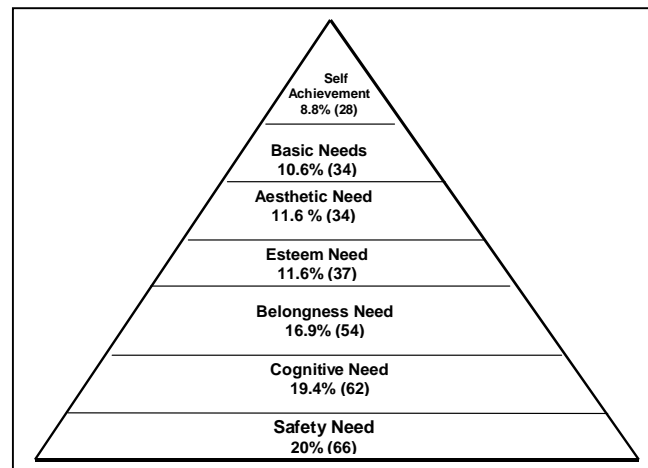
The high value placed on the Cognitive Need may be due to the activities of the Health Clubs themselves which may have developed this love of learning. Thus one cannot claim that the Health Clubs have *met* a need for learning as they may in fact have *created* it before meeting it. In addition, the Health Clubs may attract individuals with a particular need for learning. A control group would also be required to demonstrate the difference in Cognitive Need. However it is apparent that there is an exceptionally high perceived Need for Knowledge in all the Health Clubs surveyed, and this can be used as a foundation for development.

### 9.2.6. Changing the Hierarchy of Needs

Perhaps the most interesting interpretation of this shift of the Physiological Needs is that in this area they have in fact been met, and as Maslow has claimed, once the Basic Needs are met, the next most salient Need up the hierarchy will be tackled, which

(according to Maslow) would be Safety Needs. Esteem Needs may not be important in a culture that is largely egalitarian and there is little expectation amongst women of this being part of their 'lot' in life, as public recognition is largely a male prerogative.

**Fig. 23.** Revised Hierarchy of Needs for Community Health Clubs, Makoni (2004)



Belongness however is a cultural mechanism for women's survival and something that is fundamental to a society built on the extended family, where polygamy has in the past worked to the advantage of women as wives help each other with household chores when they are pregnant or ill. The Cognitive Need has become developed in Zimbabwe where it is estimated that 85% of the women have at least functional literacy. This taste for learning has been encouraged by schooling as children but adults, they had had little opportunity, so producing what may be termed an 'intellectual starvation' for knowledge. This research has demonstrated firstly that the Cognitive Need is perceived as important, and secondly that the intervention that meet this need.

## **Chapter 10: DISCUSSION**

This chapter ties together the findings of the quantitative research (Chapter 8) and qualitative research (Chapter 9) related to other studies, using concepts developed in the Community Health Club Model in the literature on Health Promotion (Chapter 2) and Human Motivation theories (Chapter 3).

### **SUMMARY**

**Section 1.** applies Loevinsohn's criteria (1990) to demonstrate that this study incorporates all his key aspects to ensure scientific rigour.

**Section.2.** summarises how the intervention has attempted to meet the principle guidelines of the Ottawa Charter (1986).

**Section.3.** compares level of behaviour change in the intervention with other rigorous studies.

**Section.4.** compares Health Club members' knowledge to other studies.

**Section.5.** looks at how demand-driven sanitation is the outcome of Community Health Clubs.

**Section.6.** discusses the thoroughness of health promotion in Community Health Clubs compared to other studies.

**Section.7.** shows how the cost of the health promotion through Community Health Clubs compares favourably with two other studies in terms of cost-effectiveness.

**Section.8.** analyses why extension workers are motivated and how much support is needed to enable them to be effective.

**Section.9.** compares the varying results from Tsholotsho and Makoni Districts and summarises variables that have affected adherence to recommended changes.

**Section.10.** interprets data from twenty individual interviews showing reasons for the success of the CHC Model, based on McClelland's (1987) concepts.

**Section.11.** provides an adaptation of Maslow's Hierarchy of Needs (1953) for rural women in Zimbabwe using results from the pair-wise ranking exercise.



**Section.12** shows how the CHC Model meets Nutbeam's (1999) three criteria of a theory.

### 10.1. CHECKING FOR RIGOUR

It is important that the intervention study in this thesis meets the same standards of scientific rigour applied to other studies (Loevinsohn, 1990, Cave and Curtis ,1999, Ahern, 2000). The following section makes a rapid check on the eleven characteristics of a rigorous study proposed by Loevinsohn (1990) (See Section 2.2. Table 2).

The first criterion states that for a study to be considered rigorous it should be based on '*explicit theory*' (Loevinsohn, 1990). The Community Health Club Model falls within the Community Development paradigm (See Table 1) that endorses a horizontal and holistic approach to health promotion as an entry point into a full process of development. As shown in the literature review (See Chapter 1) the intervention model draws on some classic ideas from Durkheim (1895), through Weber (1904), to modern Social Epidemiological theorists of Social Capital (Coleman,1990; Putnam,1993; Kawachi and Berman, 2000). In psychology and social-psychology, diverse influences have provided inspiration as explained in Chapter 2. (Freud,1918; Murray; 1938, Maslow, 1953; McClelland, 1967; Bandura, 1977,1986; Azjen and Fishbein, 1980). The approach is based on sociological theory outlining a mechanism of change, presented in the Linear-Cyclical Model of Habitual Behaviour Change (See Fig. 4, Section 5.1.3). The emphasis on the need to adjust values and norms to be more compatible with the demands of society categorises it as a Modernisation Theory (See Section 3.1.1), and in sociological terms it can be positioned from a Functionalist perspective (See Section 5.1.1).

The Community Health Club is the vehicle for development (See 5.4.1) and a road which passes ideally through four consecutive stages of development: Health Promotion, Implementation, Sustainable Livelihoods and Social Development. The training methodology used for the health promotion sessions in the intervention was an adaptation of a standard method which was developed regionally to transfer knowledge related to water and sanitation and hygiene known as PHAST (See 5.5.1. and 6.3.1). This open-ended participatory method was transformed into a carefully structured programme, which provided measurable outputs in terms of behaviour change. This adaptation enables it to meet the second criterion which states: '*adequate description of how the study was adapted to local conditions*'. The Community Health Club Model is intrinsically a community-led intervention and this meets No.7 of Loevinsohn's criteria which states: '*evidence of community participation in design, goals or outcome measures*'.

The training method has been described at length in Chapter 6, whilst examples of training materials are shown in Annex 16, and this meets criterion three which states: *'adequate description of materials or educational processes employed'*. Cost-effectiveness is analysed in Section 6.7 which meets the 4<sup>th</sup> criterion requiring *'adequate description of resources required to carry out the educational process'*. To assess the sustainability of intervention, Loevinsohn requires in criterion six, that the study should be at least one year after the end of intervention. Whilst the initial quantitative data in this intervention were taken only six months after the intervention, the qualitative data were taken three years after the intervention had ceased. In addition 65% of the population in Tsholotsho, and 30% in Makoni had completed training over a year prior to the study (See Section.10.7). Criterion five requires a *'measured outcome before and after the intervention'*. In place of this method, a control group has been used. The study shows changes in a raft of health-related behaviours and the target population for the quantitative data in this intervention was a total of 382 members in Makoni and 375 members in Tsholotsho compared to a control of 113 in Makoni and 59 in Tsholotsho. For the qualitative data, there was no control group but seven Health Clubs were sampled and 20 individuals interviewed. As deemed essential in criterion 8, the research has included a positive outcome, and p-values for all household observations are included (criterion 10) which showed most to be highly significant (Criterion 8). Statistical regression (required by criterion 11) has not yet been done as the main focus of the study has shifted towards the qualitative data to provide community explanations for the quantitative data. However regression is an aspect that should be covered when more in-depth analysis is done (See Section 11.6.1, Future Research).

Thus ten out of the eleven criteria of the characteristics useful for academic rigour are to be found in this study. This 'score' should ensure that it can be used in comparative analysis with other health promotion programmes. Due to the dearth of rigorous studies which meet all criteria, many studies cited by one key review used in this study (Cave and Curtis, 1999), were selected with only <60% of the criteria evident.

## **10.2. FOLLOWING THE OTTAWA CHARTER**

### **10.2.1. Five Main Themes**

The Ottawa Charter (1986) stressed five main themes, and these have all been followed within the intervention as summarised below:

#### **1. Importance of equity:**

Gender equity stressed: although women are in the majority, it is made clear to the community that *Community Health Clubs* are not just for women; men as well as women of all ages, education levels, and religions are equally encouraged to join.

**2. Community participation in decision-making:**

Uses the basic participatory PHAST methodology to develop informed decision-making, but positions the process in a more structured context of weekly sessions and practical application monitored by the Health Club members, using membership cards as a community contract.

**3. A multi-sectoral approach:**

Four stages of the Community Health Club Model set across the Ministries of Health, Education, Agriculture, Forestry, Water, Rural District Council, District AIDS Council and District Development Fund

**4. Appropriate technologies:**

VIP Latrine, protected family wells, *badza* stand, hand washing facility, interlocking blocks for latrine lining, alternate composting latrines (See Chapter 6 for photographs Figs. 12, 13, 14, 15.)

**5. Emphasis on health promotion:**

Uses health promotion as the entry point, a six month training which developed common unity and from which all other activities stem.

**10.2.2. The Determinants of Health**

In order to address the determinants of health the Community Health Club Model has followed the Ottawa Charter's five principle guidelines for health promotion:

**1. Reorienting health services:**

EHTs have changed their training methodology and use participatory methods, have good training materials and are mobile. They have become facilitators rather than health inspectors and are known and respected by the community. They have empowered communities to take over many of their duties (cholera alerts, monitoring sanitation levels, providing statistical information, ensuring communal water supplies are clean and maintained).

**2. Creating supportive environments:**

CHCs provide a safety net for other members and assist terminally ill, disabled, HIV/AIDS, widows and orphans in the neighbourhood.

### **3. Enabling mediation and advocacy:**

Women as a group are able to lobby, many have become local leaders and trainers and represent Health Clubs at district and national level at agricultural shows, world health days providing information on herbal remedies, drama, and health songs.

### **4. Developing personal skills:**

Effective home management, prevention of disease, knowledge of herbal cures, literacy, book-keeping, leadership skills and training in a range of skills (bee-keeping, oil pressing, sewing gardening, carpentry, paper making etc.)

### **5. Strengthening action:**

Women within CHCs have become empowered and increased in self-efficacy. They have the confidence to achieve their tasks, and are high achievers, setting realistic targets and effecting change. In group action on two occasions CHCs have influenced voters to remove obstructive councillors. Many women within Health Clubs are now district trainers and leaders.

The main message of the Ottawa Charter is that to combat disease, the structural issues in society have also to be addressed in a horizontal approach to health promotion. Despite this clear focus on the determinants of health, many interventions continue to pursue a vertical strategy which can only superficially address the disease in question. Whilst there is a case to be made for vertical interventions for eradication of diseases such as poliomyelitis, neonatal tetanus, dracunculiasis and Chagas disease, there is less justification for interventions seeking to control diarrhoea as this is largely affected by hygiene levels and has multiple transmission channels. Vertical programmes are often favoured as it is easier and more persuasive for funding purposes to measure a significant improvement in one disease than a general improvement in many (Cairncross, 1997).

The absence of studies which are both rigorous and horizontal has tended to skew the health promotion sector in favour of research methodologies that have met the required academic standard, rather than those studies that have served the community best. An example of this problem is a study on a malaria campaign in Guatemala (Kroeger, 1996) where a 93% level of uptake was claimed; this study did not feature in any of the top fifteen studies selected by the three reviews (Loevinsohn, 1990, Cave and Curtis, 1999, Ahern, 2000). On the other hand, a heart disease campaign using a social marketing programme in California (Elder et

al, 1998) that was not able to give specific quantifiable positive outcomes was accorded 'rigorous' status (Cave and Curtis, 1999) although the crucial criteria 8 (Loevinsohn, 1990) was missing. In the final analysis it is surely interventions that have the most measurable positive impact on the target population that should be highlighted and replicated. It is therefore important that horizontal studies ensure good reporting and meet the required standards of rigour, and to that end this research has been conceived.

### **10.3. BEHAVIOUR CHANGE IN CONTROLLED STUDIES**

The significance of levels of behaviour change found in this study can only be fully appreciated when compared to what has been achieved in various other health promotion interventions. Compared to many rigorous studies cited earlier in the three main reviews (Loevinsohn, 1990; Cave and Curtis, 1999, and Ahern, 2000), this intervention has successfully used a wider range of target behaviors and has had more intensive contact with the target population (See Table 5, Section 2.7.2.). Most compliance rates in cited studies referred to only targeted one risk behaviour and changes recorded 20% or less. One study which has been compared to the Community Health Club Approach in terms of innovative health promotion in Africa (WSP, 2002) is provided by Borghi et al. (2002) in a hand washing promotion programme in Burkina Faso. This Social Marketing study calculated the cost of an 18% increase in handwashing (with soap) after handling children's faeces and a 16% improvement in handwashing after using the latrine, at \$8 per household. Two other targeted behaviours increased marginally: 8% for use of potties, and 4% for safe disposal of faeces (See Section 1.6.4.).

The two studies most comparable to this intervention in terms of percentage behaviour change was firstly by Stanton and Clemens, (1987) in which 49% of one practice increased in a diarrhoea intervention in Bangladesh; secondly by Tayeh & Cairncross (1996) who found a 56% increase in use of filtered water in Ghana. Also comparable (because of its more comprehensive training methodology) is the intervention by Torun (1982) in Guatemala who found a 33% behaviour change. Kroeger (1996) recorded the highest rate of behaviour change of all cited studies, at 93% after an interactive and innovative health promotion campaign against malaria.

The only study where a broad range of behaviours was measured was a study of risk behaviour in Community Health Clubs in Bikita District in Zimbabwe, (running concurrently with the Makoni / Tsholotsho intervention; See Section 6.1.3), the authors found a range of between 5% and 35% change for 16 different risk behaviours after a six month health promotion intervention (Mathew and Mukuwe, 1999; Mathew 2004).

The Community Health Club intervention achieved similar compliance rates or better on the majority of 20 different indicators. In Tsholotsho there was a 45% improvement in a mean of 18 indicators (with 16 being highly significant with  $p < 0.001$ ), while Makoni with 21% mean of 14 indicators (with 10 highly significant), showed itself to be half as effective as Tsholotsho. This would appear to reflect less the inability of the intervention to create change than the fact that those behaviours recommended had in many cases already been common in both control and CHC areas. This was attributed to previous health promotion over the years prior to intervention, whereas in Tsholotsho this was not the case. Nonetheless a mean of 21% for 14 observations is higher than most other comparative studies.

#### 10.4. CHANGES IN HEALTH AND HYGIENE KNOWLEDGE

Of the fifteen rigorous studies reviewed by Cave and Curtis (1999), Ahern (2000) and Loevinsohn (1990), the only study which gave explicit information on levels of health knowledge was Pant et al (1996) in a malnutrition intervention in Nepal, reporting 48 aspects of knowledge of good nutrition. It was also the only study to mention literacy levels, which is essential in order to compare the appropriateness of the training methodology with other interventions. Because of the absence of this critical information in the selected rigorous studies, two other comparable studies (which were not selected by the reviews above) were used to provide comparison for this study (See Section 2.9) : Kroeger (1996) who reported a 34% increase in health knowledge of three main messages on malaria in Guatemala and Mathew and Mukuwe (1999) in Bikita, Zimbabwe. The latter measured an unprompted knowledge of risk behaviours in ten subjects, comparing Health Club members to a control group and found an average of 15% difference between knowledge of risk behaviours in the club membership compared to non club membership, after a six month intervention of weekly health sessions. As noted above (See Section 6.1.3), the Bikita programme was a replication of the Makoni Pilot Study, which had an identical methodology and content of training (Mathew, 2004).

In Makoni District (See Section 8.2.1; Table 23) the difference between *good* knowledge<sup>39</sup> in Health Clubs members and the control showed a range of 35% to 9% in ten topics, whilst in Tsholotsho District members levels of good knowledge in the clubs were significantly higher than the control in all topics ranging from 49% to 51% higher than the control group. These findings should be sufficient to demonstrate that members of Community Health Clubs were *highly* receptive to a *wide* range of information involving over 50 main messages. This puts in doubt the efficacy of the

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<sup>39</sup> Good Knowledge means that the respondent knew the cause, transmission and prevention of a condition

recommendation to use only a few simplistic key messages (Loevinsohn, 1990), as being the most effective means of providing health promotion. The research suggests that the rural communities may have moved to a higher level of understanding than was found in the 19980's when levels of literacy were much lower in most countries.

## **10.5. DEMAND-DRIVEN SANITATION**

The Community Health Club model can provide the necessary community mobilization to effectively create demand-driven sanitation as well as inducing high levels of behaviour change. Like the village cleanup programme in India, where villagers are shamed into a concerted drive to make their village a faecal free environment (Khan, 2004), the Community Health Clubs enable a village to work together to achieve zero open defecation. It has been found that at least half of each Health Club can be expected to build latrines within a year after sessions start. It has also been shown that 100% safe sanitation can be achieved within six months if cat sanitation is used by those who have not as yet been able to build latrines, usually due to programme constraints.

### **10.5.1. Faecal-free environment in Tsholotsho communal lands**

The use of 'cat' sanitation in the absence of latrines was a new recommendation which proved highly acceptable to the community (See Section 6.5). In Makoni, this practice increased by 14% in spite of the already high sanitation coverage, and in Tsholotsho cat sanitation was adopted by all the 57% of respondents without latrines. By contrast it was not in evidence anywhere in the control area.

## **10.6. THOROUGHNESS OF INTERVENTION**

As discussed above, some researchers may subscribe to the idea that a minimal amount of knowledge is needed to effect behaviour change. As noted above, (See Section 10.2) the perspective of this intervention is that only by constant reinforcement of different aspects of hygiene can the whole picture of health be painted for the community, who will then take on, not just isolated practices relating to each particular disease, but a whole *modus vivendi* which addresses all the essential hygiene practices necessary for prevention of infectious diseases. In other words they will have adopted a 'culture of health.'

The achievements in the Community Health Clubs relative to other interventions should support this thesis. Looking at comparative studies, (See Section 2.7, Table 5) there is a slight pattern showing that interventions with only a few face-to-face interactions

record fairly marginal levels of behaviour change, whilst those with intensive and repeated interactions achieve higher rates of behaviour change. This increase of behaviour change over time, was also demonstrated in one particularly successful study which over a period of twenty months promoted exclusive breast feeding in Mexico (Morrow et al.,1999). Weekly classes for two months were given to a group of mothers followed by home visits for a further eighteen months. The follow-up visit in the third month showed adherence levels of 62% as against a control group's 24% adherence. This increased to 80% by the time of a visit in the sixth month, which may indicate the importance of constant reinforcement until practices are sufficiently well established so as to become habitual.

### **10.7. COST-EFFECTIVENESS**

Sceptics may point to the costs involved in undertaking a health promotion programme that involves weekly meetings for six months and an array of training materials, as well as a fairly sophisticated training methodology using participatory activities. However these fears can be allayed by the fact the health promotion in Community Health Clubs proves to be cost-effective, not only in terms of value for money (number of outputs) but also in terms of inputs (cost of training). As noted in detail (Section 6.7.1) the cost of health promotion was US\$ 24,395 and this was 20% of the total budget. Including capital costs it is estimated that the health promotion cost US\$ 5.51 per household in the first year and US\$ 2.13 in the second year. This compares favourably with the few other interventions, which have provided a cost analysis: Pinfold estimated to achieve hygiene in the home in Thailand at a cost of between 66c to US\$1.27. The cost of the programme in Burkina Faso using social marketing through street theatre and radio as well as some house visits, was estimated at a cost of US\$8 per household (Borghi et al. 2002). However it is probably less important to measure the cost per household than to measure what each household is likely to receive for this cost. The latter depends of the thoroughness and breadth of the intervention.

### **10.8. MOTIVATION OF EXTENSION WORKERS**

Despite initial fears that this approach would be too labour-intensive, Environmental Health Technicians (EHTs) in Zimbabwe implementing this intervention have all reported that Health Clubs have eased their workload. They coined the expression 'the supermarket approach' to describe how, as with a 'one-stop shop', all their business could be done at one meeting, avoiding the usual time-consuming rigmarole of seeking out individual community members for various reasons. Other government ministries also took advantage of the weekly Health Club meetings to make their own announcements. The ease with which the extension workers were able to train



communities can be attributed to a large extent to the fact that a large 'tool kit' of visual aids had already been developed, and training in PHAST was thorough. Trainers reported that the ready-made visual aids had been an easy tool to use in participatory activities and the few who were sceptical at the training became converted to the approach once they had tried it in the field and found how well the community responded.

EHTs became more popular with the community and were driven by job satisfaction to meet a highly demanding schedule of training in a different club every day. Some EHTs were known to have honoured training commitments with clubs even during their annual leave. Enjoyment at running the sessions, and strong community appreciation of their efforts, was a key aspect of their success. Many EHTs became so popular with their members that they posed a threat to the local councillors, though most of these were quick to support the approach, seeing its potential for winning votes.

The provision of a reliable motorcycle was probably the most effective material incentive for the EHTs, although they were also given a nominal lunch allowance as well. Monitoring was done largely by the members themselves, who signed the travel claim forms for the EHT. The staff of the Ministry of Health and the NGO at district level met the EHTs only at monthly meetings. The NGO was active only in the initial one-week training, in setting up the reporting systems, and in monthly meetings. Only one NGO project officer was in each district, supporting the Ministry of Health, mainly by providing transport to monitor and attend graduations.

#### **10.9. VARIABLES AFFECTING ADHERENCE TO RECOMMENDED PRACTICES**

The data show that Community Health Clubs can, under typical conditions, achieve high levels of health knowledge and hygiene behaviour change across a wide range of interventions, but this is not necessarily always the case. Tsholotsho consistently achieved higher levels of behaviour change than Makoni. A number of variables could explain why Tsholotsho was more receptive to change.

During discussions held with Ministry of Health staff to analyse the differences between the results in the two areas, it was strongly suggested by EHTs that the main difference between the districts is that the women in Makoni are full-time farmers and have far heavier agricultural demands than in Tsholotsho, where the Ndebele were traditionally cattle herders, and where most women live from their husbands' remittances. This is borne out by the results that show 38% of women in Tsholotsho, but only 4% in Makoni, are dependent on their husbands' income. By contrast, 67% of women of Makoni are joint breadwinners and spend most of each day in their fields for much of

the year, and cannot always attend to the high level of hygiene recommended in the clubs. In arid Tsholotsho, where farming is difficult and cattle are the basis of subsistence, only 15% are joint breadwinners. Therefore it is surmised that these housewives have more time to keep their compounds clean and attend to hygiene recommendations, and this is also reflected in the high investment of their time in the decoration of their kitchens. The 41% increase in the prevalence of nutrition gardens, despite the arid nature of the area, indicates the strength of the club activities. Women's time is an important determinant of their ability to adopt healthy behaviour in many settings (Leslie, 1989).

The outstanding variable is the *extent* of the intervention in each district. The Ministry of Health was most active in Makoni where the project extended throughout the district and the methodology was fully entrenched. In Tsholotsho, only three EHTs in three of the District's 19 wards were involved (See Section 6.1.2, Table 14), and they deliberately restricted themselves to a maximum of seven clubs per year, whilst in Makoni District, EHTs responded to the demand, splitting clubs when they became too large. EHTs in Makoni monitored an average of 17 clubs each in three years and thus could do fewer home visits than in Tsholotsho. Thus overextension and a shortage of EHT time could account for the lower compliance in Makoni.

The MoH offered the EHTs little supervision in Tsholotsho, yet this area achieved the highest rates of adherence. With 17 different EHTs in the two districts, it may be imagined that their level of commitment would vary and affect the success of different clubs they facilitate. However all the EHTs, with only one exception<sup>40</sup>, were remarkably dedicated to the programme, investing far more effort than duty demanded. If the Hawthorne Effect had been a factor that influenced productivity, it should have produced better results in Makoni, where the Ministry of Health was more supportive and there was regular outside interest, rather than in Tsholotsho where there were seldom visitors. It would appear their popularity with the community was more of an incentive for EHTs to perform than incentives and supervision by their superiors.

Tsholotsho is the more underdeveloped area and in the three intervention wards, this was the first water and sanitation project since Independence in 1980. Therefore it is reasonable to infer that people may be more motivated and willing to invest more time and effort in marginalised areas, than in areas like Makoni where donors have been more plentiful, and their assistance taken for granted. If the area is one where many interventions have been operative for some time, it is evident that initial hygiene standards may be higher and therefore the difference between the groups will be

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<sup>40</sup> Only one EHT out of 17 took advantage of the motorbike provided to spend most days away from his station .

smaller. There is also a heightened interest in an intervention and stronger willingness to comply if there has been no similar intervention before in the area.

Another variable, which may affect the level of adherence, is the energy and leadership quality of the facilitator guiding the Health Clubs. Gender may also be an important issue in cost-effectiveness. Whilst there were only three women out of seventeen EHTs in the Zimbabwe study, they showed better use of resources<sup>41</sup>, and in one particular case achieved outstanding results relative to other areas in behaviour change<sup>42</sup>.

#### **10.10. REASONS FOR SUCCESS OF THE COMMUNITY HEALTH CLUB MODEL**

Answers as to the main reasons that Community Health Clubs have been so popular were sought from Health Club members themselves in a series of 20 individual semi-structured interviews (See Section 9.1). This was also reflected in group pair-wise (See Section 9.2) ranking evaluation of perceived needs, and how well these needs had been met by Health Club activities.

##### **10.14.1. The Need for Affiliation**

The hypotheses in the model had been based on a number of key guidelines which had been garnered from the author's working experience in the rural areas with women's groups in the past thirty years in Africa, as well as from sources in the literature which had fitted with the theory. The underlying behavioural mechanism which informed the model was the idea that there was a strong 'need to conform' within Shona and Ndebele society (Gelfand, 1984; Kriel, 1971), and that the Health Clubs provided a public forum for the increased use of subjective norms to influence behaviour (Ajzen, 1988). Without assigning values this was explained by an analogy to two different but equally valid survival strategies in nature: of herbivores, who rely on co-ordinated group action, and of carnivores who rely on individual action (See Section 5.2.1). Community Health Clubs sought to influence people in a co-ordinated group so that changes were approved by group decision rather than expecting each individual to take personal decisions (See Section 5.2.2). As the margin for failure is small in poor households, individuals are wary of taking risks until interventions have proved reliable and cost-effective. With group endorsement, individuals were prepared to undertake change without fear of failure. It also mimimised levelling mechanisms that have in the past undermined efforts by individuals to break with the common wisdom (See Section 5.2.4). The fact that health messages were reinforced over a long period by peers as well as by authority, was a far more thorough process than had been applied in other

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<sup>41</sup> All three women maintained their motorbikes better, and rode more carefully and used less mileage than male EHTS.

<sup>42</sup> This may have been partly why Tsholotsho has noticeably higher achievements than Makoni

health promotion programmes, and may account for the higher levels of change. The clubs sought to build self-efficacy (Bandura, 1986; 1997), which gave members the ability to change with confidence (See Section.5.2.3) This is achieved through group processes and peer pressure as much as by actual knowledge and personal self-discipline.

The findings in the interviews (See Annex 11) and pair-wise ranking confirmed this theory (See Section 9.2). Belongingness, the pleasure of being part of a wide group, was ranked second in the communities' hierarchy of needs. In a culture high in the Need for Affiliation (See Section 2.6.1) this was an important attraction of the weekly meetings. The sessions, where song and slogans played a key part, offered an occasion for conviviality and sociability, identified by Kriel (1976) as a pillar of Shona way of life. Mathew and Mukuwe (1999) also note that the joy of sociability was an aspect that attracted members to join clubs in large numbers.

The interviews provided a strong picture of the difference between Health Club members and non-club members. Whilst being a club member does not isolate one from the rest of the community, meetings with non-members tend to be for more functional activities such as funerals. Club members tend to have more in common, and influence all their closest friends to join the club so they can share time and ideas together. There is also a strong sense of superiority within the membership of a Health Club as they perceive themselves to be more progressive, clean, hygienic and empowered and better able to cope better than non-club members. They take the role of teachers, helping non-club members to change; as caterers, insuring good hygiene standards at mass feasts such as funerals; and carers, helping to make the sick and dying more comfortable. It would appear that they are respected and admired by most of their community and that belonging to the Health Club does not undermine their social acceptance.

#### **10.10.2. The Need for Achievement**

Underlying the Community Health Club Approach was the recognition that in semi-literate rural communities there is considerable faith in the power of knowledge as a means of breaking the cycle of poverty (Gelfand,1979). It was surmised that the Need to Achieve (McClelland, 1961) which had been stimulated by intellectual activities at school, was an unmet need as girls tend to marry at an early age and become mothers with household demands. The pleasure women found in learning was mentioned repeatedly in the interviews, and it was clear that the weekly Health Club sessions provided an opportunity for knowledge exchange and debate. The appeal of the Health Clubs was largely based upon this cognitive need. This was shown by the

value attached to gaining a certificate and the commitment to 20 sessions further enhanced the value as it was considered a worthwhile achievement having taken so long to qualify. By keeping a rigorous standard for the content of the training, the club members were given a sense of identity as high achievers. As there were few material incentives to join the club, it would appear that the appeal to cognitive need was a viable strategy.

The Need for Achievement (See Section 2.6.1) seems to be a latent aspect in women in the rural areas. Given the opportunity, they enjoy competition and readily enter best-home competitions, health quiz, drama and song contests, and most recently netball and Sports Days. An anecdote to illustrate this was a 63 year old who took pride in being one of the fastest runners in the club (See Annex.13. Interview 6).

### **10.10.3. The Need for Power**

Whilst individual women may have little control over a life of rural subsistence (Gelfand, 1971, Ncubane, 1977), as a block they are a powerful lobby in local events, particularly if supported by the traditional birth attendant or Chief's wife. In Dumbamwe ward, Health Club members voted an obstructive male Councillor out of office and voted in a woman leader from the Health Clubs as the new Councillor. Ten Health Clubs have together constructed a Training Centre, raising funds, moulding bricks, cutting thatching grass and paying builders in an endeavour that has taken four years to achieve at a time when Zimbabwe is in economic decline. The activities and the planning that is currently taking place within Health Clubs, as evidenced from the interviews, shows how women can organise themselves to survive in a time of national crisis. Soap-making groups that could easily have given up as there was no tallow to make soap, have converted into soap-trading groups, buying and selling over forty bars of soap a day in the area. The ability for women to earn an income has been the key to the increase of the power that many women now enjoy, as their husbands respect their skills and value their financial contribution. Control of resources is a crucial aspect of power and many CHC women have become controllers within their homes. The sense of respect that is often achieved by being a successful graduate in the Health Clubs has given women the confidence to bring about change in many other areas. Self-efficacy is accompanied by hard work and reports of levels of income being made in a time of national emergency would be hard to believe, were they not backed up by project reports, gathered monthly from Ward Co-ordinators (See Annex 2 for income generated in 2004).

It is surmised that an archtypal 'Good Woman' as a role model in Zimbabwean society may have developed during the past century of Christian and philanthropic influence

(See Section 3). Following their mother's experience in colonial times, many modern women may continue to aspire to this ideal: that of the respectable, church/club-going woman. It is surmised that the Community Health Clubs have continued in this philanthropic tradition and reaped the benefit from these colonial efforts. The colonial discourse which played a strong part in conditioning modern values of smartness (Burke, 19960) has now, in post independent Zimbabwe, assumed an almost nostalgic need for lost standards. Although the school curriculum was reformed after Independence to be more sensitive to local culture, colonial English values have continued to be perpetuated through teachers and church leaders, in what continues to be a parochial society. The importance of respect from the community and from the family, and in particular the in-laws, is still one of the core values in a changing society. Health Clubs have helped women gain this type of respect and enabled them to emulate the archtypal role model of a Good Woman. It is clear from the interviews that many women feel that they have '*become somebody*' from their association with the clubs and that they do not feel '*just dumped*' in the rural areas (See Annex.11. Interview 4).

An observation which would not have shown up in the individual interviews or the pair-wise ranking is the change in eating arrangements in the home. This is particularly interesting from an anthropological perspective as the normal arrangement in Zimbabwe is for women and children to sit on a mat on the floor, whilst the father has a stool or bench along the right hand wall as one enters. This 'traditional way' has been abandoned in some homes. Women have moulded large clay chairs, more like thrones along the walls in their kitchens, often conspicuously labelled 'Father' and 'Mother' seated alongside each other on the same level. Often there is also a bench for the children, with a small table in front of each, with hand crocheted mats carefully laid out. This elevation of women to be on an equal sitting arrangement with the husband is a highly significant indication of the self-assurance that some women have achieved. Rather than the servile maid, they are on a par with their husbands for all to see.

## **10.11. THE HIERARCHY OF NEEDS FOR RURAL WOMEN**

### **10.11.1. Changing Maslow's Hierarchy**

Based on the Hierarchy of Needs (Maslow, 1953), a method was devised for comparing each need with the other (pair-wise) so that needs could be ranked according to importance. Maslow's theory in brief is that goals are related in a hierarchy of prepotency so that as one need is satisfied, the next up the scale becomes important. He placed the needs in this order: Physiological, Safety, Belongingness, Esteem, Cognitive, Aesthetic and Self Actualisation (See Section 3.4). This intervention

prompted the author to find out if the order of needs, surmised by Maslow, was in fact the order which would be selected by rural women in the Health Clubs. In addition, Maslow's thesis had been developed based on industrial society in America, and with little other experience he had at that time questioned whether the Cognitive Need was salient in uneducated people. It was thus interesting to attempt to update his thesis, based on community perceptions, and to apply the Hierarchy of Needs Model to rural areas in Africa.

An exercise was done in ten Health Clubs, (See Section 9.2.2) in randomly selected wards where all four stages of the CHC Model had been followed. The members were asked to provide ten ways in which their lives had changed as a result of the weekly health sessions. By a process of pair-wise ranking, it was possible to establish the order in which the clubs have met the needs of the club members. This was as follows: Highest ranking was Safety (32%); Cognitive (30%); Belongingness (21%); Physiological (9%), Esteem (5%), Aesthetic (3%); and Self-achievement (.001%). The variety of responses were then sorted publicly into the seven categories in the Hierarchy of Needs as provided by Maslow (1953). The whole group was then asked to vote on each pair of variables as to '*Which is the most important*'. The strength of the verbal group response was taken as a vote. This provided a remarkably direct indication of the thinking of the group. It became rapidly apparent if there was ambivalence, and if the group was undecided a vote was taken by raising a hand. The results of this pair-wise comparison showed the following ranking: Safety (21%); Cognitive (20%); Belongingness (17%); Aesthetic (12%) Esteem (11%); Physiological (10%) and Self Achievement (9%). This shows the same order for the top four 'needs', although Physiological has been demoted, and more value placed on Aesthetic, Esteem and although Self Achievement has been placed last, it has gained in support.

There was some confusion over the question between whether the people were being asked 'what is most *important* to them' (in terms of identifying their needs), or 'what has the Health Club *done* for you' (an evaluation of what has already been achieved) and it cannot be said that this is a *quantifiably* accurate picture of sentiments within the club membership. The problem is that the exercise takes a *value* which is essentially a *qualitative* measure, and ranks it according to a vote which is *quantitative*. This vote may not be accurate given the public nature of the process and the interview bias that may have arisen when the exercise was carried out with personnel associated with the intervention. However, those reservations aside, the exercise did give a flavour of the needs and how the needs had been satisfied within the Health Club intervention.

### 10.11.2. The Cognitive Need

What does seem clear is that the Cognitive Need, the need to know and learn, is a high priority in the rural areas and that this need was more than adequately met by the intervention, as evidenced by the many positive responses to the question: *What were your reasons for joining the club?* Whilst eleven mentions were made of the need for knowledge, there were eight mentions of social reasons, four mentions linked to self improvement, three mentions of hope for material gain and improvement to home, and three mentions of curiosity, just wanting to know what was going on in the Health Clubs (See Annex 13.1.1). This research also answers Maslow's question as to whether uneducated people have this need and whether it becomes salient when other needs are more pressing. It would seem safe to surmise, on the basis of the findings in the interviews, together with the voting in the pair-wise exercises, that the Cognitive Need is largely unsatisfied in the rural areas and that the Community Health Club has met this need. However, it may also be a circular argument; that the activities in the Health Club have stimulated the Cognitive Need because there was the possibility of the Cognitive Need being met once weekly health sessions were a feature of life in the village. If this is the case, that the Health Club can *awaken* a cognitive need and then *fulfill* it, then this is a valuable strategy for attracting rural women.

### 10.11.3. The Physiological Need

For example, one would surely expect to find that in an area of subsistence farmers with regular food shortages, unsafe water and poor sanitation that these physiological needs would be salient. Instead we find the opposite: that Physiological Needs are identified by the community as being less important than Cognitive and Safety Needs. The Physiological Need was supported by only 9% of votes in the first round and 10% of votes in second round. This can indicate one of two things: either those needs are provided for already with adequate food, water and sanitation, and the people are sufficiently comfortable to invest in other activities higher up the scale; or the needs are not provided for, but they are considered relatively less important. It would appear that as there is considerable hardship in this area, the latter is more likely, and that a programme which can offer intellectual stimulation will be popular with the community, despite lack of provision of material assistance. This is an important finding as it means that the popular conception that subsistence farmers are primarily attracted only if an intervention can provide material benefits may be a mistaken reading of their prime motivation.



#### 10.11.4. The Safety Need

Another important observation to highlight is that Safety was placed first on the scale, rather than Physiological Needs, as surmised by Maslow. This was interpreted as 'protection from disease and misfortune'. Many felt Safety had been provided by information which enabled people to deal with disease effectively in the home. In addition the home-based care intervention had provided concrete support to families living with HIV/AIDS, and instruction on the propagation of herbs, was one of the most appreciated aspects of the intervention. There was also a recognition that the increase in good nutrition from the many gardens had made families healthier and also brought in an added income. The aspect of a social safety net within the club also fell under this category, as it was verbalised repeatedly that members help each other when in need, particularly with funerals or when neighbours are ill. This safety net relieves much of the stress of rural livelihoods, which depend on being physically fit to work. Thus, as Safety was an umbrella for many other needs, it was voted 32% the first time and reduced to 21% after some rethinking of the definition. Similarly, Belongingness is voted high the first time at 21%, and then 17%. It appears that sometimes the two categories were slightly interchangeable: safety often entailed a sense of being able to rely on neighbours which could be also classified as Belongingness. However there was a strong appreciation of the opportunity that had been provided for a weekly social event which enabled women in particular to come together and share problems.

The high value put on Safety and Belongingness may have implications for the work being done on Social Capital (Kawachi and Berman, 2000), as the community may have identified high levels of trust and strong social networks as prerequisites for a healthy community. The underlying strategy of using Community Health Clubs to develop a 'culture of health' within a community, is based upon a need for common unity of understanding and purpose between members of the community so that they can initiate and manage their own health without being undermined by destructive elements in the village. This means that ideas must be shared, and that intervention must promote unity rather than competition and division. By constantly reinforcing key messages on a weekly basis people get to know each other, and slowly trust is developed and networks are expanded. By extending their own personal networks people have more resources to call upon, because they can barter their own services and favours with others. This is a form of personal insurance that is used by peasant societies throughout the world, as it compensates for material security that is the way the wealthier class of society insulate themselves from misfortune. Social networks eventually contribute to social capital. This is a concept that is increasingly being used to account for the level of social security within a society. Kawachi and Berman (2003), have demonstrated that states in America with high social capital have fewer cases of

heart attack because anxiety levels and personal stress which cause these conditions are lower. Social capital is measured in terms of the level of trust within a given society. Social capital, unlike financial capital is not individually owned. It is like a public fund of goodwill that can be used to cushion those that draw on it. However its defining quality is that it is a public good, rather than a private possession. This means that even those who do not contribute to developing it may benefit from its existence. Kawachi and Berman (2003) give the example of voluntary work by a parents-teachers association of a school, that may raise the quality of education at a school, so benefiting not only the parents' own children but also all the other pupils. It is therefore the spill-over of improvements that can be accessed by the needy in any society. Similarly, the operation of an effective Community Health Club in an area should benefit all those living in the area whether they are members or not.

#### **10.11.5. The Aesthetic Need**

As was originally surmised by Maslow, (1953) the Aesthetic Need will not be salient until other needs have been met. Beautification and decoration of the homestead is less important if there is an absence of food. Although the Aesthetic Need was not ranked highly at the community evaluation, there were signs of a strong aesthetic need when individual homes were visited. Women went to enormous efforts to decorate their kitchens, improve their homesteads and dress smartly. Best-home competitions had prompted a range of home improvements which were largely for aesthetic rather than hygienic reasons.

The level of decoration found within kitchens, particularly in Tsholotsho, reached heights that many experienced development workers in Africa would find difficult to believe (See photo. Fig. 18). Within each kitchen hut the central fireplace has often given way to a new fuel-efficient clay stove with an external chimney. Rather than the rough mud plaster, the whole kitchen is either polished to glass finish with black floor polish or burnished with metal, or painted with intricate patterns. One wall has often been moulded into clay dressers with niches for rows of individual plates and cups, sometimes studded with bottle-tops or pebbles. The drinking water is carefully covered with fitted lid, with a ladle and cups hanging nearby. Paper is laid on all shelves and sometimes empty boxes and tins decorate the shelves like a make-believe shop. The effect is of a carefully conceived, immaculately maintained, art work.

*Fig 24. Kitchen art in Tsholotsho: a richly decorated dresser, moulded into the clay wall of a kitchen hut, to display crockery. (See also Fig.22 for kitchen in Makoni)*



There is another aspect of human motivation which has been neglected by the Classic Hierarchy of Needs: the Spiritual Need. Given high levels of spiritual motivation and the rapid growth of new church groups in Africa, this is a dimension that should not be ignored. Judging from overt Christian behaviour in the Health Club sessions, it has been incorporated informally into the intervention, although spiritual guidance was not an aspect that was offered in this intervention, as the clubs sought to be as inclusive of all beliefs to encourage a broad adherence.

#### **10.11.6. The Esteem Need**

Women who had qualified with certificates felt they were experts in the field of home hygiene and health and also that they were also considered by others as expert (See Annex 13.2.3). A mother who is less educated than her children can suffer from a sense of inferiority and sometimes becomes unnaturally dependent on a child's information from school. There were numerous references to the respect the children now had for their mother (Annex 13.3.1). It appears that children also took an interest in new practices learnt each week at health sessions and were central to helping to improve standards at home as they took on many of the new practices, such as sweeping the yard before school. It was also clear from the interviews that many husbands have become proud of their wives' achievements. Eight descriptive comments were made on how the husbands were initially resistant to wives 'wasting time' at the club, until they experienced the benefits of a well-ordered home (See Annex. 13.3.1). The husband's parents are also important, as Shona and Ndebele practice virilocal residence. Therefore approval from in-laws is a strong indicator of esteem, and this appreciation was voiced in many cases (See Annex 13.3.3) where daughter-in-law feels she is considered an asset to the family because she is clever,

hardworking and does not gossip and waste time. It is reasonable to assume that this respect from the extended family may be one of the reasons that the women in Health Clubs have been so assiduous in their attendance of health sessions and their obvious delight in the certificate they are publicly awarded.

#### **10.11.7. The Need for Self Actualisation**

It is likely that there was some cultural restraint in playing down a woman's own needs as she is expected to be selfless and waste little time developing her own talents (Weinrich, 1982). In addition there was some difficulty in the interviews talking about an abstract concept such as the importance of life. However the Need for Self Actualization was determined by asking two questions: *What is the most important thing in your life as a man or a woman?* (See Annex 13.2.2) and *How does the Health Club help you to achieve the things which are important to you?* (Annex 13.2.3). A total of 70% of the responses indicated a women's importance in terms of caring for her family, providing food and good nutrition, promoting health by cleanliness; whilst the other 30% of responses noted the importance in life for self discipline and understanding. More abstract values for self such as the need for a woman's independence and love or happiness were mentioned only three times each (See Annex 13.2.2). Answers provided rich insights into how the Health Clubs have helped women to become more capable in effective care of the family (See Section 9.1.2.2). Gaining knowledge in order to improve home hygiene and prevent diseases was reflected in 35% of the responses, whilst 36% mentioned more tangible home improvements to the facilities in the home often enabled by ability to earn was mentioned in 10% of the responses. Self respect enhanced by husband's approval was also fairly high at 11%, whilst community support was mentioned in 8% of the responses (See Table 36, Section 9.1.2.2). The more abstract the need, the less easy it is to pigeon-hole responses into one category or another. However it is clear that Community Health Clubs, rather than meeting purely material needs, contributed on many levels to a woman's ability to excel as a mother within her family and this may be taken as a means of 'self-actualizing' within the context of a rural subsistence family.

#### **10.12. ELEMENTS OF A THEORY**

Nutbeam (1999) provides three main demands for an effective theory (See Section 2.1). As Chapter 5 provides considerable theoretical explanation of the Community Health Club Model, the following section will purely answer the criteria identified by Nutbeam.

### **10.12.1. Why the Community Health Clubs activate some people and not others**

Comments from the interviews provide reasons why Community Health Clubs do not attract everybody (See Annex 13.5.5). They primarily attract mothers and grandmothers rather than men, and those interested in learning and socialising. From observations made by EHTs, those women who do not join are those who spend some part of the year in town with their husbands, those who are too busy, those who are pregnant or have new-born babies, and the old and infirm. Reasons given by the community are that their husbands prevented them, that they didn't hear about it or that they just were not interested (See Annex. 13.5.5) There was repeated opportunity for anyone to join in most areas either when the club first started, as it was progressing or within each intake every six months. Most villages after two years had included over 80% of households. However there are some areas where there has been no EHT for many years or where clubs have stopped expanding.

### **10.16.2. Linking knowledge, belief, social norms and behaviour**

The Cyclical-Linear Model (See Chapter 5.1.2) demonstrates how habitual behaviour changes through a long-term process: The Community Health Club provides a forum for exploration, which through health education leads to new ideas. These ideas are evaluated in a group through participatory activities and once group consensus is achieved the whole membership resolves to change together. This is how knowledge and beliefs have changed social norms so that, with peer pressure, it becomes uncomfortable to be different. Once new behaviours are adopted, the member once again becomes part of the majority and feels comfortable with the change. As more people change, the pressure from the Linear worldview starts to counterbalance and eventually predominate over the Cyclical worldview.

The design of the health promotion programme of 20 training sessions creates a 'culture of health' by constant reinforcement of key principles of good hygiene. Each week a different topic is studied and relevant homework is given, to be achieved by the next week. Breaking down the complexity of hygiene into achievable components enables easy achievement without much investment of time, or money in the initial stages. Once capacity for personal change has been developed and homesteads begin to improve, more difficult modifications to infrastructure (water sources) and facilities (latrines) are undertaken as a group. By setting realistic targets, success is achievable and the cycle of failure is broken. A sense of achievement and personal 'Self-actualisation' is a characteristic of effective Health Club members, who unlike non-club members do not fear the consequences of improving, because the changes they make have been endorsed by the group. This means that there is also less Fear of Success (See Section 3.7) as all members can aspire to the same standards of

living without being subject to jealous reaction, the Pull him/her Down syndrome (See Table 11, Section 5.3.1)

On an individual basis, self-efficacy has been increased by converting feelings of Low Dominance (sense of uncertainty, inhibition, shame, inferiority) to High Dominance (self esteem, sureness, mastery, pride, capacity) (McClelland, 1985). Respect of in-laws and husbands are important in developing self-efficacy, and these have been augmented by the increased effectiveness of women in the home and their ability to contribute financially has brought increased appreciation.

On the social level, positive cultural strengths have been built upon: the desire for harmonious relations and deep seated values of conformity and consensus which have traditionally been used to maintain the *status quo* in society, are here applied for positive change. By using an appeal that is culturally appropriate, Health Clubs have been endorsed by the whole community, and are often key institutions for informed decision-making within the areas where they operate. It appears that levels of interpersonal trust have developed and the group strength of women has built social cohesion resulting in high levels of Social Capital in the area. Norms of reciprocity and mutual aid have been changed and there is ample evidence of an abundance of mutual support (See Annex 13.15.4)

## **CHAPTER 11: APPLYING THE LESSONS OF COMMUNITY HEALTH CLUB INTERVENTION AND FUTURE RESEARCH**

Whilst it has taken five years to provide a rigorous academic study to show the cost-effectiveness of Community Health Clubs, the intervention continues to have a life of its own, impacting on the lives of over 100,000 people. For research to be of any real value it has to be applied, as soon as possible, to enable real change to take place where it is most needed, in the lives of the poorest in the Developing World.

This chapter looks beyond the immediate study to see how Community Health Clubs can be scaled up within countries where seed projects have already been established and shows how it has already been successfully replicated in Uganda and Sierra Leone. It provides guidelines as to what variables will provide an enabling environment for similar interventions in order to predict hygiene behaviour change and ensure demand-led sanitation.

### **11.1. SUSTAINABILITY**

There has been some scepticism that the author's conspicuous involvement in the field may have been an aspect which affected the high level of uptake in the initial stages of the intervention. At that stage some felt that lack of such personal involvement would affect future replicability of this model. Whilst this may well have been the case in the preliminary field trials, it should be noted that whilst initial training of EHTs was done by the author, further field visits were minimal and as the intervention spread, only the few original wards knew of the author's role. In addition, Health Clubs have been sustained for six years without any input whatsoever from the author<sup>43</sup>. The NGO has continued to monitor developments within the Health Clubs at a distance, with three project officers at district level, but with minimal mobility due to fuel shortages. The Ministry of Health continues to provide health sessions in areas where EHTs still remain. The NGO has been severely downsized as a result of the lack of donors funding and support. Despite the fact that this is a cost-effective method, the major constraint to the scaling up of Community Health Clubs is not lack of community uptake, but the lack of external funding. The daily running of activities is conducted by village community workers, the chairpersons and other trainers in each club and at ward level by the semi-voluntary Ward Co-ordinators. Community Health Clubs have a life of their own and do not depend on the NGO or Government.

It is surmised that the four stage Model (outlined in Section 5.4) has been the key to sustaining activity in the Health Clubs. Those clubs which benefitted from additional

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<sup>43</sup> The author has been out of Zimbabwe since February 2001, returning once annually to conduct the research.

support for income generation, prior to 2001, have thrived and continue to operate a variety of activities as evidenced in the interviews. Not only are creative ways being found to counter the hyperinflation and lack of employment in a country now dependent on food aid (See Section 4.4), but women in Health Clubs are in fact prospering despite the hardship in the country. There was repeated reference to additions that have been made to homes, despite the economic situation. Furthermore women were providing school fees for children and helping to supplement family income with extensive sales of vegetables, herbs and honey.

Whilst the third and fourth stages of the Model are not the subject of this thesis it is, in fact, these stages which are addressing the *determinants* of health and providing long term solutions to poverty which is the basis of poor health. In addition, most Health Clubs now have a home based carer to assist women nursing a dying family member, and counselling the family (See Annex 4). The safety net provided by fellow club members has assisted many of the 3,000 orphans and widows in the project areas, by contributions in cash, kind or labour (See Annex.13.5.4). The ability of Health Club members not only to *understand* disease, but also to *prevent* much sickness by improved hygiene has been referred to repeatedly in the interviews (See Annex 11.21) with many claiming to have diarrhoea, skin infections, malaria and other minor complaints under control (See Annex.13.4.1) . In addition the ability to use herbal remedies (See Annex 3) has given a lifeline to many given the lack of drugs in clinics since 2002 as well as the escalating cost of transport and unavailability of fuel nationally which has limited public transport in recent years. Income generating projects are also providing an incentive for a renewed round of health and hygiene training sessions (See Annex 2). This is because it is a policy in all Health Clubs that, for a member of the community to join any other income generating activities, it is compulsory to first attend health sessions for six months.

The sustainability of the approach is demonstrated in Makoni District, by the many clubs with on-going activities which continue to function three years after the end of funding, and that have a life of their own with minimal outside monitoring and no material inputs. There was much reference to the weekly sports that were taking place in and between clubs (See Annex. 13.1.3). Netball and athletics have provided a social outlet, and a reason to meet, in addition to keeping members physically fit. Sport also provides a tension release and builds solidarity. This was a community innovation which has contributed another dimension to the possibilities of using Health Clubs for a vehicle for multiple development initiatives.



## 11.2. OPERATIONALISING SUSTAINABLE LIVELIHOODS

The multi-faceted development, which is being undertaken in Community Health Clubs, provides an example of a health promotion model, which can build all the five 'capitals' (physical, financial, natural, human and social capital) outlined in the Sustainable Livelihoods Approach (DFID, 2000) (See Section 1). The CHC model does in reality, create synergy between capitals so that by strengthening human and social capital there is more likelihood of physical, financial and natural capital showing sustained improvements when the Community Health Clubs have done all four stages.

## 11.3. SCALING UP THE COMMUNITY HEALTH CLUB MODEL

The question has often been asked: *Can a community-based intervention such as the Community Health Club intervention be scaled up to national level, without a dedicated NGO with charismatic project officers in every district?*

It may be true that Zimbabwe, at the time of intervention, unlike many other countries, had an effective cadre of Ministry of Health extension staff based at most health centres in the rural areas. The CHC model merely rationalised their existing workload into a more structured programme. With more reliable transport, and with a week's training EHTs could be trained for this programme throughout the country at relatively little extra cost. In Zimbabwe, the Community Health Club Model could easily become institutionalised within the Ministry of Health within a two year programme, as demonstrated in Makoni, Tsholotsho, Lupane and Gutu Districts. This could be scaled up to all of the country's 57 districts.

It is estimated that there are 1,225,740 households in Zimbabwe without latrines (NAC, 2000). To meet the MDG targets and to halve this by the year 2015 would require only 51,072 latrines to be constructed per year. This averages at only 896 per district per year. The experience in Makoni and Tsholotsho has demonstrated that with good support, over 1,000 VIP latrines could be constructed per year through Community Health Clubs in each district. When the Community Health Club approach is adopted and the Ministry of Health field staff are motivated and mobile, with good training materials and logistical support, there is little resistance from the community to improve hygiene and sanitation.

In countries where there is not the same level of Ministry of Health commitment or capacity, the only alternative is to use indigenous NGOs, whose staff would be posted to the operational areas. This was demonstrated in Gulu District in Northern Uganda,

where a local NGO, supported by an external NGO<sup>44</sup>, was formed specifically to administer the programme. Within six months a dedicated core of extension workers, had been trained and had started activities in all the fifteen IDP Camps. Ministry of Health were not able to run this programme as they were already overstretched in the area. In Sierra Leone, NGO staff were trained in the absence of Ministry of Health staff, and were effective while they were deployed in the field. However, where possible it is more sustainable to use MoH staff as the disadvantage of using NGO trainers is that they tend to be in place for only a few years whilst funding is available.

#### **11.4. PREDICTING BEHAVIOUR CHANGE**

The following considerations affect the applicability of the approach to other developing countries.

##### **1. Least developed areas**

The more under-developed the community, the more effective the Health Clubs will likely be in achieving behavioural changes as the CHCs appeal strongly to illiterate and disadvantaged people, who lack a sense of self-efficacy and respond more readily to change within the context of group conformity.

##### **2. Low levels in base-line data or in control group**

Where prevalence of good hygiene behaviour is low i.e. before the intervention (or in the control), very significant percentages of improved sanitation and changes in specific hygiene practices can be achieved.

##### **2. Any level of illiteracy**

Contrary to expectations, the approach does not require a certain level of literacy to be successful, although it is targeted at the semi-literate.

##### **3. Good support to trainers**

Optimal levels of community support are gained by committed trainers; support to them in terms of reliable transport, appropriate training materials and fair incentives are essential, and these will be the main costs of the programme.

##### **4. Five clubs per trainer**

Although the optimal number of clubs that can be managed by one trainer at any one time is around five, this must be weighed against cost considerations. The larger the number of beneficiaries, the cheaper the programme will become, but it may be less effective.

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<sup>44</sup>Health Integrated Development Organisation (HIDO) supported by Care International

**5. More cost-effective over time**

Once the Health Clubs are established, they can be continued at nominal expense, with minimal monitoring; thus over time the costs per beneficiary fall.

**6. Use of the membership card and certificate**

The membership card, a clear schedule of training and the public acknowledgment of dedicated members with a certificate, seems enough to attract community support to join Health Clubs, even without immediate material incentives.

**7. Intake renewed over four years**

Health sessions should be continued until all those who want to join in every village have been given the opportunity; this may involve enrolment over at least four years.

**8. The full Four-stage Model**

To sustain the life of the Health Clubs, health promotion should lead not only to the implementation of water and sanitation programmes, but also be a vehicle for other initiatives such as income generation, adult literacy, voter education and understanding of human rights, and HIV/AIDS support.

**9. Sustainable Livelihoods**

Ideally, funding should be sourced from agencies interested in holistic development of sustainable livelihoods rather than short term, emergency interventions aimed at controlling one particular disease.

**11.5. REPLICATION**

**11.5.1. Emergency Sanitation in IDP Camps in Uganda**

The Community Health Club Model had only been used in rural areas, and there was some interest to find out if it could be adapted to peri-urban, high density areas. In 2004 the CHC model was introduced into Northern Uganda, where due to ongoing war in the countryside during the past 18 years, 85% of the population of Gulu District is displaced and packed into vast Internally Displaced People's (IDP) Camps, with a population in each camp varying between 15,000 and 64,000. There is minimal sanitation, and the proposed intervention entailed health promotion reaching 120,000 people and provision of 10,000 latrines within six months in 15 IDP camps. This was an ambitious target, but by scaling up the CHC model the challenge was not only met, but exceeded within the time frame and budget.

To provide health promotion for 120,000 people, 120 Health Clubs were needed with a hundred members in each club. At the rate of five clubs per trainer, 24 trainers were required and these new recruits (mainly newly qualified clinicians) were trained within a week. A participatory tool kit was put together from existing visual aids already available within the country, and trainers were posted to the 15 IDP Camps. Within four months, 116 CHCs were started with a total enrolment of 15,522 members, which accounts for 42% of the 36,138 households within the programme area, and approximately 100,000 direct beneficiaries. Secondary beneficiaries included others in the camps who watched the numerous dramas and health sessions without necessarily being regular members. There have been 1,650 health sessions held, with considerable uptake of recommended practices. 8,583 traditional covered latrines<sup>45</sup> of which 1,387 have poly sanplats<sup>46</sup> were built accounting for 65% of the CHC membership in four months and by six months the target of 10,000 latrines had been exceeded. In addition 3,372 pot racks<sup>47</sup>, 6,020 bath shelters were built as well as 1,552 plastic tippy-taps<sup>48</sup> for hand washing. It is also apparent that diffusion of ideas and practices have affected those neighbours who emulate Health Club members, thus significantly improving hygiene standards within each IDP Camp. (Waterkeyn, Okot and Kwame, 2005).

#### **11.5.2. Faecal-free resettlement villages in post-conflict Sierra Leone**

There is also a strong case for using Community Health Clubs in post conflict settings where emergency reconstruction of villages is underway. For example, In Sierra Leone, in 2001, after ten years of civil war, people were returning to their villages in some districts where conflict had been brought under control, and were starting to reconstruct their homes. Open defecation had become a major health hazard, so a programme was introduced<sup>49</sup> into 28 villages under reconstruction using Community Health Clubs to mobilise demand for sanitation, and clean up the environment. The people had been severely traumatised, and it was surmised that the Health Clubs would also provided a forum for interaction and contribute towards developing social capital in the villages. Whilst previous Health Clubs had been in Christian areas, this intervention was in a largely Moslem area. Whilst the Health Clubs had their own chairperson, usually a woman, the proceedings were endorsed by the imam in each village, who ensured that *all* homes were represented in the Health Club and that all recommended changes were made mandatory for every household. Unlike the largely Christian Health Clubs in Zimbabwe, 62% of the Health Clubs consisted of men who

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<sup>45</sup> Unlined pit, with mud and pole superstructure and floor, with a lockable door made of recycled material.

<sup>46</sup> A new innovation, designed by the author for lightweight, cleanable slabs made of moulded plastic.

<sup>47</sup> A drying rack like a small table for kitchen utensils made of sticks outside each home, to keep pots off ground.

<sup>48</sup> A local design using a plastic container hanging on a frame, with a foot operated lever for tipping out the water.

<sup>49</sup> CARE International, in Bo and Moyamba Districts.

readily joined and participated alongside their wives. In 20 of the villages, every home was represented; in the remaining three villages, due to a policy of limiting the size of the clubs, 92% of homes were represented. There were a total of 1,026 households in the programme of an estimated population of 8,189 in the two districts of Moyamba and Bo. After six months there were 45 clubs with 2,877 members of which 72% completed all twenty sessions.

Project records showed that within six months a faecal-free environment had been achieved with 461 Alternating Composting Latrines constructed and the balance of households practising 'cat sanitation' as had been the case in Tsholotsho (Waterkeyn and Waterkeyn 2002). Although no quantifiable data were available, an evaluation was done by the author using a participatory community review in 19 villages with a village transect walk in each. This indicated high levels of uptake with pot racks, washing lines and well-swept yards everywhere in evidence, while none existed in the non-CHC villages. Although there had been a baseline survey, no post intervention survey was subsequently carried out and therefore further research is needed to track changes in the villages since that time.

These examples provide some indication of the adaptability of the model to different conditions. Whereas in Zimbabwe the Health Clubs were quickly adopted by the well settled, relatively comfortable subsistence farmers, living in their ancestral homes; the model was also appropriate in two conflict zones: the heavily populated IDP camps in East Africa and in Moslem resettlement villages in West Africa. The model can be used in rural and high-density areas, in countries at the bottom of the UN Human Index Scale or in relatively developed areas, with Christian or Moslem groups, and most importantly, it can be used in development and in emergency programmes.

#### **11.6. FUTURE RESEARCH**

The research undertaken for this study has answered the basic questions that it set out to explore. It has shown that Community Health Clubs are cost-effective; they are easy to implement for development workers; they are popular, particularly with women in rural areas of Africa, and that most importantly they can achieve significant positive change in hygiene behaviour within a year. The research has also raised further areas of interest, which could provide more detailed insights, as identified below.

### **11.6.1. Multivariate Analysis on existing data**

The full dataset also included Gutu, Bikita, Lupane and Chivu Districts and was initially taken with a view to analysing differences in implementation between districts using CHC Model. However during the course of the research, the focus moved away from this research question and this additional data has not been used in this thesis.

More statistical research also needs to be done with multivariate analysis to determine the optimal length of training: how many sessions, and what length of exposure in terms of time is the most cost-effective for achieving behaviour change. It would appear significant that in Tsholotsho where 68% attended all sessions, the levels of behaviour change and health knowledge were so much higher, as opposed to in Makoni, where only 36% of members had finished all 20 sessions, but this is likely to be due to a number of other factors at district level such as comparative level between the control groups and target population, and prior exposure to health information which varies in each district. At club level, the gender and effectiveness of trainers could account for a range of success between the Health Clubs and at a personal level women's leisure time appears to have been important. This is related to marital status (especially if the woman is a widow) and means of livelihood (if she is supported by her husband or is busy all day in the fields), and may also be linked to income level (if improvements can be afforded). A mother's level of education appears not to have been a major factor in attracting women to join Health Clubs, although the number of sessions she attended and whether she completed the course may be linked to her level of education. Another set of data could be extracted using only the 30% in Makoni and the 65% in Tsholotsho who had completed all training more than a year prior to the research data collection.

### **11.6.2. Control group for comparison with CHC interviews**

Political suspicion of foreigners made it dangerous for the author to go into areas where the project had not taken place. If this had not been the case we would have interviewed people in non Health Club areas, in order to compare levels of attitudes to risk behaviours, understanding of preventable diseases and activities undertaken to prevent disease. It would give more strength to the CHC interviews if they could be compared with what is said by non-Health Club members in the same area. This would also enable more understanding on the outsider's perception of Health Club members and their activities. Once political stability returns to Zimbabwe it is hoped that this will be completed.

### 11.6.3. Ten years on: a post health club phase?

Ruombwe Ward distinguishes itself each time it is sampled as being different in some ways from the other wards: The following are some particular aspects of this ward:

- It was the very first area where Health Clubs were started in 1995.
- The EHT was highly active and started more clubs than any other EHT initially.
- More latrines were constructed in Ruombwe Ward than any other ward; by 202 there were 1,194 latrines in a ward of 2,224 household.
- The EHT joined the NGO and Ruombwe was left without MoH staff for over a year.
- When a new EHT joined she left within six months for study leave and the ward (and Tikwiri Ward) still remains without an EHT (2002-2005).
- The councillor for the Ruombwe was one of the few women councillors in the District.
- The only councillor in Makoni to cause trouble for the CHC programme as it conflicted with her own programme which she started in opposition in 1995.
- The only ward before 2001 to have Stage Three (Sustainable Livelihoods), as paper mills were set up in two villages.
- The only ward to have a Community Training Centre and therefore had a lot more exposure to visitors and publicity.
- Considerably more inputs for start up of income generating projects compared to other wards.
- The only one of ten sampled clubs where the original Health Club structure had broken down, with jealousy between members and executive committee.
- Three district trainers have been selected from this ward due to its development; the District Bee promoter, the District tinsmith trainer and the Ward Co-ordinator / District Nutrition trainer.
- The only Health Club sampled where many members were boycotting the club because the co-ordinator had 'high-jacked' many of the benefits and was favouring her own family.
- Despite difficulties the income generating within families rather than groups is still very active.
- More poverty alleviation appeared to be taking place especially from the paper making and bee keeping activities, although this has not been quantified.
- In the community pair-wise exercise the only ward to mention self actualisation (self achievement) as one of the ways the Community Health Clubs have developed the area.

- The ward with the only consistently decreasing pattern in infectious diseases from Health Centre statistics since Health Clubs first started in 1995 (See Section 3.5)

From the author's first hand inside knowledge it would appear that leadership personalities have contributed to making Ruombwe different from other wards, and levels of social capital and trust may not have developed in the same way as in other wards. With more material incentives the opportunities for social friction have increased. More visitors and publicity may also have undermined local self sufficiency. Although community structures appeared weak in this ward, it is probably one of the most prosperous in terms of individual increase of income and decrease of infectious diseases within the whole district.

As a case study this ward needs to be more carefully documented with further research. It is surmised that the levels of hygiene, sanitation and income over the last ten years have been raised through Health Club activities and despite the lack of good leadership, personal circumstances have improved and the ward has moved into a more self-sufficient 'post-Health Club' phase, where common unity and group solidarity is less important as individuals have developed individual strength.

#### **11.6.4. Longitudinal studies in Sierra Leone and Zimbabwe**

That the Health Clubs in Makoni District have contributed in terms of health management for the community is clear. However, it is not known how well Health Clubs have been sustained in other areas of Zimbabwe such as Tsholotsho, Gutu, Bikita and Lupane, where Health Clubs were started in 1999 and underwent the first two stages but which have been abandoned for the past six years. A base line survey was done in Sierra Leone on 50 Health Clubs in 2001, and if a post intervention survey could be done, (three years after the intervention) this could be used in a longitudinal study to ascertain if clubs have survived and continue to practice good hygiene. More recently the 120 Health Clubs in Uganda in 2004 have been surveyed both pre and post intervention and these results could be compared with those in Zimbabwe and Sierra Leone. This would provide more understanding of the CHC Model, and provide answers as to whether it is necessary to continue to the third and fourth stage, as was done in Makoni District, in order to sustain the life of a Community Health Club.



### **11.6.5. The Use of PHAST as a training strategy**

As shown in Section 4.7. the general use of PHAST training tools in health promotion in Zimbabwe have shown little results (World Bank-WSP, 2001). As a result the key agency which had promoted this methodology decided after six years it was not cost-effective, and sought to abandon the approach in favour of Social Marketing. Similarly in a recent survey in Uganda, where like Zimbabwe, a pilot project had been set up to use PHAST principles during the 1990's, little evidence of hygiene behaviour change was found (PDG, 2003). However, the CHC Model using structured participation and the same PHAST Tools and methods, has during the same period and in the same country, succeeded in achieving highly significant levels of change. As this study now shows PHAST can be used cost-effectively. Therefore, more thought needs to be given as to how to extend PHAST, rather than to abandon the approach completely (See Section 6.3). The weakness of the opened-ended participatory activities used in PHAST appears to lie, not in the participatory methods, which were also successfully used in Community Health Clubs, but in the fact that trainer's are not given a structured intervention which is properly monitored and evaluated against observable proxy indicators (Waterkeyn and Waterkeyn, 2004). There is a need to reconsider reversing years of development along the PHAST route and conduct an independent evaluation into levels of behaviour change and cost-effectiveness in Community Health Clubs in Zimbabwe and now in Uganda using PHAST training techniques.

### **11.6.6. Social Capital**

In the course of the research, the author came across an interesting research method that would be applicable to replicate in Community Health Club areas. Simple surveys are used to assess levels of Social Capital (Kawachi and Berman, 2000) to measure level of trust within communities. Informal reports from the police in Tsholotsho at the time of intervention indicated that the crime rate in areas where there are Community Health Clubs seemed to be reduced and this would provide an interesting new aspect to the model. Surveys to measure levels of interpersonal trust, an indicator of Social Capital could be done in the Health Club and compared with non-Health Club areas, and the results compared.

If it can be shown that Community Health reduce levels of distrust and aggression and builds community cohesion, this would be a useful model for use in high density areas of urban migration, where development efforts are stalled due to lack of social capital.

### 11.3.6. Effect of Community Health Clubs on reduction of disease

In addition there is an interest to monitor disease reduction in longitudinal studies to see if there is any significant difference between Health Club areas and non CHC areas. A preliminary study (Waterkeyn, 2005) has been done analysing records of ten health centres which shows some interesting declining trends particularly of diarrhoea, skin disease and bilharzia (See Annex 14). As this was not the main thrust of this study it could not be adequately researched within the time available. The declining disease trends in some Health Centres could be explained in other ways, such as shortage of drugs, increases cost of treatment, staff, national shortage of fuel with a resultant fall-off of reported cases. However this does not explain why in many wards disease start to slowly *increase* after a dip for a few years between 1999 - 2002. In all wards there is a decline, but in only one ward (Ruombwe) does the decrease *continue*. Statistics need to be gathered for the past two years.

It is surmised that much of the explanation between the fluctuating number of cases, and the decreasing trends and upward turns in wards could be tracked to the movement and intensity of training within Health Clubs. It is also apparent to the author that in wards where the more effective trainers are active there is sometimes a more significant decrease. However this observation needs to be supported with careful research into the exact start and finish of health sessions in each ward, density of membership, availability of facilitating EHT, and leadership within the ward and correlated more carefully against the Health Club activities in each ward.

The next stage should be to examine each ward in turn to isolate confounding variables, in order to understand the influence of Community Health Clubs upon the reduction of certain diseases in some wards. The CHC wards also need to be compared with a non-CHC control area, to establish if this trend is also apparent in non-intervention areas.

### 11.6.8. Prevention of malaria

When interviewed, thirteen out of twenty Health Club members, claimed that malaria has been reduced in their family due to their preventative practices: burning cow dung at night, covering up well against mosquitoes, and clearing the surrounding bush near the house (See Annex 13.4.2). Local wisdom does place much credibility on such means of prevention, and members maintain their methods are effective. If this is true it goes against much well documented academic research that maintains that the only completely effective method of malaria prevention is the use of insecticide treated nets. It is not known how many members are using mosquito nets, and it would be of

interest to track some of the claims made by Community Health Club members, to see if some of their methods (e.g. burning cow dung) is indeed proving effective, as this is also used in other parts of East Africa, amongst the nomadic Orma people of North East Kenya.

#### **11.6.9. Herbal remedies for opportunistic infections for HIV/AIDS**

If success is gauged by community uptake, the popularity of herbal cures for many of the opportunistic infections that diminish the quality of life of those infected with HIV/AIDS need to be properly tracked and analysed medically. Home-based carers report continual success at alleviating painful symptoms such as herpes, urine infections, sores, throat infections, and even reduction in high blood pressure (See Annex 4). It has been impossible within the scope of this research to find out if there is any substance to these claims. However the groundswell of home based remedies has resulted in propagation of western and local herbs, and most of the registered PLWAs have their own herb garden and regularly treat themselves. Individuals who have been bed bound are now only housebound, and those that were housebound are in some cases back at work. There is an urgent need to track these cases as the herbal remedy is fast becoming of national interest and many NGOs and individuals are beginning to emulate this programme.

#### **11.6.10. School Health Clubs: an entry point into the community**

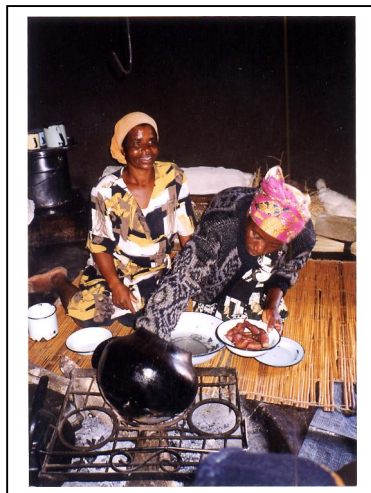
School Health Clubs have been tried in Zimbabwe (Mathew, 2004) and shown considerable success in raising awareness in child-to-child teaching programmes as well as child-to-parent interaction. Children learn faster than adults and are in a controlled environment and therefore well placed to be sources of information. In addition schools are often the pivot of the neighbourhood as most families will have one or more children at school. This makes it an obvious entry point into the community. Pilot programs using School Health Clubs in association with Parents Health Clubs would provide a full coverage of the area, and ensure equitable distribution of knowledge and practices, particularly in high density slum areas, where migrant workers often lack a sense of community.

### **11.7. CONCLUSION**

The model has demonstrated a means of scaling up according to demand, and the extent is dependent largely on the number of trainers available. Seed projects, providing first hand empirical evidence of the success of the Community Health Clubs, now exist in three regions: Uganda in East Africa, Sierra Leone in West Africa

and Zimbabwe in Central and Southern Africa. More advocacy is needed to highlight the achievements of these three interventions to enable governments to adapt this model to local requirements and institutionalise this intervention at national scale. The CHC Model is a cost-effective community-based health promotion intervention which can achieve sustainable behaviour change and genuine community development, and it is expected that agencies seeking this solution will be more proactive in supporting further scaling up and replication once concrete and rigorous data is available.

With only ten years left before 2015, time is running out to achieve the MDG target to halve the number without sanitation and safe drinking water. The question remains whether development workers and academics will actively apply some of the theoretical concepts that have been brewing for years. The scaling up of Community Health Clubs, at least in Africa where its cost-effectiveness has now been proved, would offer a viable solution to creating a demand for sanitation and improved hygiene within the home.



**Fig 25: Moving up off the mat:**

*Empowerment of CHC women is indicated from the changes in kitchen practice from traditional woman's place serving her husband from the fireplace (left) to eating alongside him (below) on a throne and tables moulded in clay.*

*Tsholotsho, 2001*



## GLOSSARY OF TERMS

**Acculturation:** Major cultural change that people are forced to make as a consequence of intensive, firsthand contact between societies, (Haviland, 1993).

**Adaptation:** A process by which organisms achieve beneficial adjustment to a new environment (Haviland, 1993).

**Bride price:** Compensation paid by the groom or his family to the bride's family upon marriage (Haviland, 1993). A traditional custom in Shona and Ndebele societies known as Ruora or Lobolo.

**Community :** a number of people who share a distinct location, belief, interest, activity or other characteristic that clearly identified their commonality and differentiates them from those not sharing it, (Hoffman, 1994)

**Community Based Organisation: (CBO)** A common interest association operating at village level, founded and run by community members themselves for their own objectives.

**Common-interest associations:** Associations not based on age, kinship, marriage or territory that result purely from an act of joining (Haviland, 1993)

**Community Health Clubs:** voluntary, common-interest associations at community level, formed to provide a forum for health information and good hygiene practice with the aim to improve family health.

**Cultural change:** the alteration of norms and values between two opposing worldview's through innovation, diffusion, cultural loss and acculturation, (Haviland, 1993).

**Cultural diffusion:** The borrowing by one society of a cultural element of another (Haviland, 1993)

**Cultural loss:** the abandonment of some trait or practice without a society with any replacement (Haviland, 1993)

**Culture:** A set of shared ideals, values and standards of behaviour which is the common denominator that makes the actions of an individual intelligible to the group (Haviland, 1993).

**Culture of health:** voluntary adherence to the norms and values, beliefs and actions that are focused on achieving the ideal of good health

**Cyclical worldview:** norms, values, beliefs and attitudes that are tied to seasonal lifestyle, with an annual repetition of events and little expectation of variation from year to year.

**Discipline:** an ordered area or field of study; bounded groups or federations of theories, perspectives and methods associated with an area of study. (Bunton and Macdonald, 2004)

**Discourse:** talk that works through particular institutional arrangements of power and knowledge, that circulates and organises conversations between specific producers and audiences that relies on specific conventions for establishing its authority. E.g. colonial discourse (Burke, 1997).

**Empowerment:** enabling individuals or communities to enhance their ability to control their immediate environment or to make personal choices, which make effective use of available resources.

**Enculturation:** The process by which a society's culture is transmitted from one generation to the next (Haviland, 1993)

**Extended family:** A collection of nuclear families, related by ties of blood, that often live together in one household (Haviland, 1993)

**Functionalism:** Theoretical interpretation in social science that searches for the interconnection between social institutions rather than seeking causal explanations (Keesing, 1975)

**Gender:** The elaborations and meanings assigned by cultures to the biological differentiation of the sexes (Haviland, 1993)

**Group consensus:** the general agreement within a group as to basic understanding of an issue, the acceptance of certain information as true and the ability to work together to achieve agreed objectives.

**Gross National Product (GNP):** the amount of wealth produced in a country per year, usually measured as per head of population (Giddens, 1995)

**Health education:** refers only to the *actual transfer of factual information* on health and hygiene, which forms part of the training content within the health sessions.

**Hypothesis:** a tentative explanation of the relation between certain phenomena (Haviland, 1993).

**Influence:** the power which stakeholders have over a project to control what decisions are made, facilitate its implementation or exert influence that can negatively affect the project. (Reed & Skinner, 1998)

**Importance:** indicates the priority given by the project to satisfying those stakeholders needs and interests through the project. In general terms they can be determined by examining the goal, purpose and outputs of the project. (Reed & Skinner, 1998)

**Informal sanctions:** Externalised social control designed to encourage conformity to social norms of the group, involving spontaneous expressions of approval or disapproval by members of the group (Haviland, 1993)

**Integration:** The tendency for all aspects of a culture to function as an interrelated whole (Haviland, 1993)

**Integrative mechanism:** Cultural mechanism such as a common-interest association, that oppose forces for differentiation in a society (Haviland, 1993)

**Key message:** a one sentence slogan containing core information on an topic provided to assist rapid assimilation of an important health fact.

**Levelling Mechanisms:** A societal obligation compelling a family to distribute goods so that no one accumulates more wealth than anyone else (Haviland, 1993).

**Levirate:** A marriage custom according to which a widow marries a brother of her dead husband (Haviland, 1993)

**Linear worldview:** norms, values, beliefs and attitudes with an open ended expectation of events, tied to an ideology of change.

**Model:** a temporary conceptual construction used to assist our thinking prior to the formation of a proven theory. (Bunton and Macdonald, 2004)

**Modernisation:** The process of cultural and socio-economic change whereby developing societies acquire some of the characteristics of Western industrialised societies (Haviland, 1993).

**Norms:** expectations by a group of people about appropriate behaviour, which serve as common guidelines for social action. (Abercrombie et al, 2000)

**Paradigm:** A context in which theories exist. It constitutes the agreed way seeing, describing and acting upon the world, or a particular field of study, and predicts the course of future investigation. (Bunton and Macdonald, 2004)

**Paradigm shift:** A revolution in thinking when on paradigm is replaced by another, when several theories compete for dominance. (Bunton and Macdonald, 2004)

**Perspective:** The epistemological basis or core assumptions about how a certain theory is generated. (Bunton and Macdonald, 2004)

**Reciprocity:** The exchange of goods and services of approximately equal value between two parties (Haviland, 1993)

**Self efficacy:** Perceived personal ability to affect change (Bandura, 1977).

**Society:** A group of people who occupy a specific locality and who share common cultural traditions (Haviland, 1993)

**Social Structure:** The relationships of groups within a society that hold it together (Haviland, 1993)

**Structural Differentiation:** fragmentation of holistic, traditional society where individuals perform multiple tasks into a society where individuals perform specialised functions and roles.

**Subcultural variation:** a distinctive set of standards and behaviour patterns by which a group within a larger society operates (Haviland, 1993)

**Syncretism:** In acculturation, the blending of indigenous and foreign traits to form a new system, (Haviland, 1993)

**Tradition:** In modernising society, those cultural practices, which may oppose new forces of differentiation and integration, (Haviland, 1993)

**Traditional Culture:** the norms of an indigenous culture, prior to absorbing of alien values

**Theory:** Systematically organised knowledge applicable in a relatively wide variety of circumstances devised to analyse, predict, or otherwise explain the nature or behaviour of a specified set of phenomena that could be used as the basis for action (Van Ryn & Heany, 1992).

**Values:** a fundamental outlook recognised by the group of people in question, which provide a general standard by which the group or society maintains a certain identity which informs their most likely action.

**World View:** The conceptions, explicit and implicit, of a society or an individual of the limits and workings of its world.

## REFERENCES

- Abacci.** (2000) Website. [www.abacci.com/atlas/demography](http://www.abacci.com/atlas/demography)
- Abercrombie, N., Hull, S., and Turner, B.** (2000). The Penguin Dictionary of Sociology (4<sup>th</sup> ed) London: Penguin Books.
- Ahern, M.** (2000). Are health promotion techniques effective? A systematic literature review of available evidence: 1987-2000. M.Sc. London School of Hygiene and Tropical Medicine.
- Ajzen, I.** (1988). Attitudes, Personality and Behaviour. Great Britain: Open University Press.
- Ajzen, I. and M. Fishbein.** (1980). Understanding Attitudes and Predicting Social Behaviour. New Jersey: Prentice Hall.
- Alant, C.** (ed.) Sociology and Society: A Humanist Profile. Cape Town: University of South Africa.
- Alam, N. and L. Wai** (1991). Importance of age in evaluating effects of maternal and domestic hygiene practices on diarrhoea in rural Bangladesh children. Journal of Diarrhoea Diseases Research **9** (2): 104-110.
- Allen, L.** (2000). Representations, Gender and Women in Black South African Popular Music: 1948-1960. Cambridge University: unpublished PhD thesis.
- Allen, T. and A. Thomas** (1990) Poverty and Development in the 1990's. Milton Keynes: Oxford University Press.
- Allen, S., Aerufilira, A., Bogaerts, J., Van de Perre, P., et al.** (1992). Confidential HIV Testing and Condom Promotion in Africa: Impact on HIV and Gonorrhoea Rates. JAMA. 268: (23) 3338-3343.
- Allport, G.** (1953). The trend in motivational theory. Journal of Orthopsychiatry. **23**:107-119
- Almedom, A. Blumenthal U, et al.** (1997). Hygiene Evaluation Procedures: Approaches and methods for assessing water and sanitation-related hygiene practices. London & Brisbane: LSHTM & University of Queensland Medical School.
- Alpasca, M., Siegal, D., Mandel, J.S., Santan-Arciga, R.T., et al.** (1995). Results of a model AIDS prevention program for high school students in the Philippines. AIDS. **9.** (Supplement 1) S7-S13.
- Amin, S.** (1990) Maldevelopment. London: Zed Press.
- Anarfi, J.K.** (1995). The condition and care of AIDS victims in Ghana: AIDS sufferers and their relations. Health Transition Review Supplement **5**(5): 253-263.
- Andreasen, A.R.** (1995) Marketing social change: changing behaviour to promote health, social development and the environment. San Francisco: Jossey-Bass.
- Apter, D.** (1988) Rethinking Development: Modernisation, Dependency and Post Modern Politics. Newbury Park: Sage.
- Aronoff, J.** (1967). Psychological needs and cultural systems. New York: Van Nostrand.
- Aronoff, J.** (1971). The cane-cutters of St Kitts. Psychology Today. 53-55
- Aronson, E.** (1958). The need for achievement as measured in graphic expression In JW Atkinson (Ed) Motives in fantasy, action and society. Princeton, NJ: Van Nostrand
- Asch, S.E.** (1955). Opinions and Social Pressure. Scientific American **193**(5): 31-5.
- Ashley, C and Carney, D.** (1999) Sustainable Livelihoods: Lessons from early experience. Department for International Development. London.
- Atkinson, J. Heyns, R.W. and Veroff J.** (1954) The effects of experimental arousal of the affiliation motive on thematic apperception. Journal of the Abnormal and Social Psychology. **49.** 405-410
- Auret, D.** (1990) A Decade of Development in Zimbabwe (1980-1990) Harare: Mambo Press.



- Bahattacharya, R.** (1988) Impact of education in the knowledge and practices of rural mothers and key family members on diarrhoea and its treatment at home. Journal of Diarrhoea Diseases Research **6** (1): 15-20.
- Bandura, A.** (1977). Self-efficacy: towards a unifying theory of behaviour change. Psychological Review. **84**: 191-215
- Bandura, A.** (1986). Social Foundations of Thought and Action: A social cognitive theory. USA: Prentice Hall.
- Bandura, A.** (1995). Comments on the crusade against causal efficacy of human thought. Journal Behaviour Therapy Exp Psychiatry. **26** (3):170
- Bandura, A.** (1997). The anatomy of the stages of change. American Journal of Health Promotion. **12** (1): 8-10
- Bandura, A.** (2004) Health Promotion by Social Cognitive Means. Health Education Behaviour. **2**. 143-64.
- Baranowski, T., Smith, M., Baranowski J., Wang, D.T., Doyle, C., Lin, L.S., Hearn, M.D., Resnicow, K.** (1997) Low Validity of a seven-item fruit and vegetable food frequency questionnaire among third-grade students. J. Am. Diet Assoc. **1**. 66-68.
- Barrett, G.V, and Franke, R.H.** (1970). Psychogenic death: a reappraisal. Science. **167**: 304-306
- Bassett, M., Biljmakers A, and Sanders D.** (2000) Experiencing structural adjustment in urban and rural households of Zimbabwe in Turshen.M. (Ed). Africa Women's Health Africa World Press. Eritrea.
- Batteson, H.K. Davey, et al.** (1998) Guidance Manual on Water Supply and Sanitation Programmes, WEDC/DFID.
- Beauchlerk J., Narby, J and Townsend, J.** (1988) Indigenous Peoples: A Fieldguide for Development. (Development guidelines.v.2.) Oxford: Oxfam.
- Bendahmane, D.** (Ed.) Lessons learned in water, sanitation and health: Thirteen years of experience in developing countries, Water and Sanitation for Health Project (WASH) USAID.
- Bentley, M., Boot, M, et al.** (1994) The Use of Structured Observations in the Study of Health Behaviour. The Hague: IRC International Water and Sanitation Centre.
- Berlyne D.E.** (1967) Arousal and reinforcement. In D. Levine (Ed) Nebraska Symposium on Motivation. Lincoln: University of Nebraska Press.
- Bern, C., Martines,de Zoysa, I and Glass, R.I..** (1992) The magnitude of the global problem of diarrhoea: a ten year update. Bulletin of the World Health Organisation **70**: 705-714. **Beswick DG.** (1965). Theory and measurement of human curiosity. Unpublished doctoral dissertation. Harvard University.
- Bijlmakers, L. Basset, M and Sanders, D.** (1996). Health and Structural Adjustment in rural and urban Zimbabwe. Research Report No.101. Uppsala. Nordiska Afriainstitutet..
- Black, R., Dykes A, et al.** (1981). Handwashing to prevent diarrhoea in day care centres. American Journal of Epidemiology **113**(4): 445-451.
- Blum, D. and Feachem, R.** (1983). Measuring the impact of water supply and sanitation investments on diarrhoeal disease: problem of methodology. International Journal of Epidemiology **12**(3): 357-364.
- Bourdillon, M.** (1976). The Shona Peoples. Salisbury: Mambo Press.
- Boot, M.** Just Stir Gently. (date) The Hague: IRC International Water and Sanitation Centre.

- Boot, M. and S. Cairncross** (1993). Actions Speak: The Study of Hygiene Behaviour in Water and Sanitation Projects. The Hague: IRC & LSHTM.
- Bordieu, P.** (1986) The forms of capital. In Richardson J.G.,(ed.) The handbook of theory: research for the sociology of education. New York: Green wood Press. pp. 241-58
- Borghi, J., Guinness, L., Ouedraogo, J and Curtis, V.** (2002). Is hygiene promotion cost-effective? A case study in Burkina Faso. Tropical Medicine and International Health **7** (11), 960-969.
- Boroffice, O.B.** (1995). Women's attitudes to men's sexual behaviour. Health Transition Review **5**: 67-79.
- Boyatzis, R.E.** (1973). Affiliation motivation. In McClelland, D.C and Steele, R.S. (Eds.) Human Motivation: a book of readings. Morristown, NJ: General Learning Press.
- Bradburn, N.M and Berlew, D.E.** (1966). Need for Achievement in English economic growth. Economic Development and Cultural Change. **10**. 8-20
- Branigan, P. and Mitchel, I K.** (2000). The role of focus groups in evaluation. Evaluating Health Promotion: Practice and Methods. Thorogood, M. and Coombes, Y.
- Bullock, C.** (1928, 1970 Reprint) The Mashona: Indigenous natives of Southern Rhodesia. Cape Town: Westport.
- Bulmer, M and Warwick, D.** (eds.) ( 1993). Social Research in Developing Countries: Surveys and Census in the Third Wrold. Portsmouth: UCL Press.
- Bunton, R. and Macdonald, G.** (Eds.) (2004) Health Promotion: Disciplines, diversity, and developments. (2<sup>nd</sup> ed.). Great Britain: Routledge..
- Burke, T.** (1996). Lifebuoy men, Lux women: Commodification, Consumption & Cleanliness in Modern Zimbabwe, Durham & London:Duke University Press.
- Bussey, K. and Bandura, A.** (1992). Self regulatory mechanisms governing gender development. Child Development **63**(5): 1236-50.
- Bussey, K. and Bandura, A.** (1999) Social cognitive theory of gender development and differentiation. (Review). Psychological Review **106**(4): 676-713.
- Cairncross, A.M.** (1966). Water quality, quantity and health. Conference on Safe Water Environments, Eldoret, Kenya, Linkoping University.
- Cairncross, A.M.** (1990). Health impacts in developing countries: new evidence and new prospects. Journal of Institute of Water and Environmental Mangement **4**(6): 571-577.
- Cairncross, AM.** (1992). Control of enteric pathogens in developing countries. Environmental Microbiology: 157-189.
- Cairncross, A.M.** (1997). More water, better health. People and the Planet **6**(3): 10-11.
- Cairncross, A.M. Blumenthal U, et al.** (1996) The public and domestic domains in the transmission of disease. Tropical Medicine and International Health **1**(1): 27-34.
- Cairncross, A.M., Peries, H et al.** (1997) Vertical health programmes. The Lancet **349 (SUPPL III)**: 20-22.
- Cairncross, S.** (2003.a) Sanitation in the developing world: current status and future solutions. International Journal of Environmental Health Research.13. S123-S131.
- Cairncross, S.** (2003.b) Editorial: Hand washing with soap - a new way to prevent ARI's? Tropical Medicine and International Health. 8.(8) 677-679
- Cairncross, S., O'Neill, D., McCoy, A & Sethi, D.** (2003) Health, Environment and the Burden of Disease: a Guidance Note. London. DFID

- Caldwell, J.C.** (1979) Education as a factor in mortality decline: an examination of Nigerian data. *Popul Stud.* **33**. 395
- Caldwell, J.C.** (1986) Routes to low mortality in poor countries. *Popul.Dev. Rev.* **12**. 171
- Capell, A.** (1905). Personal diary: entry for 1905, ZNA CA 1/1/1.
- Cave, B and Curtis, V.** (1999) Effectiveness of promotional techniques in environmental health. Well Study Tasks 165.
- Chambers, R.** (1983). Rural Development: Putting the Last First. New York, Longman.
- Cheney, P.** (1990). The land and people of Zimbabwe. New York. JB Lippincott.
- Chigutu, H.** (1997). Zimbabwe Women's Resource Centre and Network: Knowledge, analysis, and equitable development. Reproductive Health Matters **10**: 40-45.
- Chiwandire, P.** (2000) An Analysis of the implementation of the rural water supply and sanitation Projects in Makoni District. Unpublished thesis for Post Graduate Diploma. Harare: Institute of Water and Sanitation Development.
- Clark, J.** (1991) Democratizing Development: the Role of Voluntary Organisations. Bristol: Earthscan Publications.
- Cleland, J. and Van Ginneken, J.** (1989). Maternal schooling and childhood mortality." Journal of Biosocial Science **10 Suppl.**: 13-34.
- Coleman, J.S.** (1990). Foundations of Social Theory. Cambridge, MA: Harvard University Press. p.300-321
- Coleman, J.S.** (1988). Social capital in the creation of human capital. Am. J. Sociology **94** (Suppl): S95-120
- Cohen, A.** (1985). The Symbolic Construction of Community. London: Routledge.
- Coleman, P., Goodman, C., et al.** (1999). Rebound mortality and the cost effectiveness of malaria control: potential impact of increased mortality in late childhood following the introduction of insecticide treated nets. Tropical Medicine and International Health **4** (3): 1775-186.
- Comaroff, J and Comaroff, J.** (1991). Of revelation and revolution: Christianity, colonialism and consciousness in South Africa. Vol 1. Chicago, University of Chicago Press.
- Connolly, K.J. and Kvalsvig, J.D.** (1993) Infection, nutrition and cognitive performance in children. Parasitology. **107**. 187-200.
- Coombes, Y and Thorogood, M.** (2000). Combining quantitative and qualitative approaches to evaluation. Evaluating Health Promotion:Practice and Methods. USA: Oxford University Press.
- Cornwall, A.** (1997) Towards participatory practice: participatory rural appraisal (PRA) and the participatory process. In de Koning and Martin. Participatory Health Research: Issues and Experiences. London: Zed books.
- Cottrell, L.S. Jnr** (1976) The competent community. In Kaplan B.H., Wilson R.N, & Leighton A.H. (eds) Further exploration in social psychiatry. New York: Basic Books. pp.195-209.
- Cousens, S., Kanki, B., Toure, S., Diallo, I., Curtis, V.** (1996). Reactivity and repeatability of hygiene behaviour: structured observations from Burkina Faso. Soc Sci.Med; **43**: 1299–308.
- Crawford, J.P.** (1967). Witchcraft and Sorcery in Rhodesia. London:Oxford University Press.
- CSO** (Central Statistic Office): (1993). Quarterly Report : Second Quarter, Harare: Macro International Inc.

- C.S.O.** (Central Statistic Office): (1995). Zimbabwe Demographic and Health Survey. Harare: Macro International Inc.
- Curtis, V.** (1993). Structured Observation of hygiene in Burkino Faso, validity, variability and utility. Social Science and Medicine. **41** (3): 383-393
- Curtis, V.** (2000). The Dangers of Dirt. Wageningen: Grafisch Service Centrum
- Curtis, V., Cairncross, S and Yonli, R.** (2000) Domestic hygiene and diarrhoea, pinpointing the problem. Trop Med Int. Health; **5**: 22–32.
- Curtis, V. and Cairncross. S.** (2003). Effect of washing hands with soap on diarrhoea risk in the community: a systematic review. Lancet Infectious Diseases **3** (5), 275-81
- Curtis, V., Kanki, B. et al.** (1995) Potties, pits and pipes: explaining hygiene behaviour in Burkino Faso. Social Science Med. **41**(3): 383-393.
- Curtis, V., Kanki, B. et al.** (2001) Evidence of behaviour change following a hygiene promotion programme in Burkino Faso. Bulletin of the World Health Organisation. (79): 518-527.
- Davidson, A.F.** (1915) South and Central Africa: A record of fifteen years missionary labours among primitive peoples. Elgin, Ill: Brethren Publishing House.
- Darendorf, R.** (1959) Class and Conflict in Industrial Society. London. Routledge and Kegan Paul.
- Department for International Development DFID** (2000). Better health for poor people: strategies for achieving the international development targets.
- de Vries, H., Dijkstra, M. et al.** (1988) Self-efficacy: the third factor besides attitudes and subjective norm as a predictor of behavioural intentions. Health Education Research **3**(3): 273-282.
- De Zoyza I., Carson D., Feachem R., Kirkwood B., Lindsay-Smith E., and Loewenson, R.** (1984). Perceptions of childhood diarrhoea and its treatment in rural Zimbabwe. Soc.Sci.Med. **19** (17): 727-734
- Diamond, J.** (1997). Guns Germs and Steel : A Short History of Everyone for the Past 1600 Years. London: Chato & Windos.
- Durkheim, E.** (1895, 1982). The Rules of Sociological Method. (Ed.) Lukes (s) (tr. Halls, W.D, 1938) New York: Free Press.
- Durkheim, E.** (1897, 1997). Suicide: a study in sociology. (Ed.) Simpson, G. (tr. Spaulding J.A. and Simpson, G. 1933) New York: Free Press.
- Ehiri, J.E.** (2000). Critical control points of complementary food preparation and handling in eastern Nigeria.
- Emerson, P.M., Linsay, S.W., Walvraen, G.E., Faal H., Bogh, C., Lowe, K., and Bailey, R.L.** (1999) Effect of fly control on trachoma and diarrhoea. Lancet. 353. 1401-3.
- Emerson, P.M., Linsay S.W., Alexander N., Bah, N., et al.** (2004) Role of flies and provision of latrines in trachoma control: cluster -randomised controlled trial. Lancet. 363. (9415) 1088-9.
- Esrey, S.A., Feachem R.G. and Hughes J.M.,** (1985) Interventions in the control of diarrhoeal diseases among young children: improving water supplies and excreta disposal facilities. Bulletin of the World Health Organisation. **63**. 757-772.
- Esrey, S. Potash J, Roberts L et al.** (1991). Effects of improved water supply and sanitation on ascariasis, diarrhoea, dracunculiasis, hookworm infection, schistosomiasis control: A Review. Bulletin of the World Health Organisation **69**(5): 609-621.
- Esrey S.** (1996) Water, waste and well being: a multi country study. American Journal of Epidemiology. 143: 608-623.

- Esrey, S.** (1997) Environmental Sanitation and its relation to child health. Paper presented at the symposium on the Changing Status of Children in Latin America: Issues in child health and children's rights. Indiana: University of Notre Dame.
- Elborne, E.** (1994). Domesticity and Dispossession. The ideology of 'home' and the British construction of the 'primitive' from 18<sup>th</sup> century to early 19<sup>th</sup> century from Woodward, W., Hayes P. and Minkley G. (Eds). Deep Histories: Gender and Colonialism in Southern Africa. Series Cross Cultures. 57.
- Elder, J., et al.** (1998). Project Salsa - Development and institutionalisation of a nutritional health Promotion project in a Latino community. American Journal of Health Promotion. **12**. (6). 391-401.
- Engel G.L.** (1978) The need for a new medial model: a challenge for biomedicine. Science **16**. 129.
- Fawole , I.O., Asuzu, M.C., Oduntan, S.O. and Brieger, W.R.** (1999). A school-based AIDS education programme for secondary school students in Nigeria: a review of effectiveness. Health Education Research. **14**. (5) 675-683.
- Feachem, R.** (1978). Water Health and Development: an Interdisciplinary Evaluation. London: Tri-Med Books Ltd.
- Feachem, R.** (1984). Interventions for the control of diarrhoeal diseases among young children: promotion of personal and domestic hygiene. Bulletin of the World Health Organisation **62**(3): 467-476.
- Feachem, R.** (2000). Poverty and Inequity: a proper focus for a new century. Bulletin of the World Health Organisation **78**(1): 1-2.
- Feachem, R.** (2001). Globalisation: from rhetoric to evidence. Bulletin of the World Health Organisation **79**(9): 804.
- Feachem, R.** (2001). Globalisation is good for your health, mostly. British Medical Journal **323**(7311): 504-6.
- Feachem, R.** (2001). Infotech and biotech: learning the lessons. Bulletin of the World Health Organisation **79**(8): 693.
- Fellin, P.** (1987) The Community and the Social Worker. Itasca111.F.E: Peacock Publishers. p.15
- Fewrell L & Colford J.M.** (2004). Water, Sanitation and Hygiene: Interventions and diarrhoea. A Systematic Review and meta-analysis. Health Nutrition and Population (HNP) Discussion Paper. Washington: World Bank.
- Fiske D.W and Maddi S.R.** (1961). The functions of varied experience. Homewood: Doresy.
- Foster, C. and Williamson, J.** (2000). A review of current literature on the impact of HIV/AIDS on children in sub-Saharan Africa. AIDS **14**: S275-S284.
- Foster, G. M.** (1965). Peasant Society and the Image of Limited Good. American Anthropologist. **67**. 293-315
- Foster, G.M.** (1972). A Second Look at Limited Good. Anthropological Quarterly. **45**.57-64
- Frank, A.G** (1969). Latin America: Underdevelopment or Revolution. New York: Monthly Review..
- Frank, A.G.** (1978). World Accumulation. 1492-1789. London: MacMillan
- Freud, S.** (1918). The basic writings of Sigmund Freud. New York: Random House
- French E.G and Chadwick, I.** (1956). Some characteristics of affiliation motivation. Journal of Abnormal and Social Psychology. **52**. 296-300
- Friere, P.** (1973). Education for Critical Consciousness. New York: Seabury.
- Friere, P.** (1970). Pedagogy of the Oppressed. USA: Continuum Publishing.
- Fuerstein, M.T.** (1986). Partners in Evaluation: Evaluating Development and Community Programmes with participants. Hong Kong: Macmillan Education Ltd..

- Fukuyama, F.** (1989) The End of History. The Public Interest, Summer. p.63
- Gallimore, R.** (1981). Affiliation, social context, industriousness and achievement. In Munroe, R.H., Munroe R.L and Whiting B.B (Eds) Handbook of cross-cultural development. New York: Garland STPM.
- Gelfand, M.** (1953). Charms in the native infant. S.Afr.Med J. **27**: 282
- Gelfand, M.** (1964). Medicine and Custom in Africa. Harare: Mambo Press.
- Gelfand, M.** (1967). The African Witch: with reference to witchcraft beliefs and practise among the Shona of Rhodesia. Harare: Mambo Press.
- Gelfand, M.** (1971). Diet and Tradition in an African Culture. London: Longman.
- Gelfand, M.** (1976). A service to the sick: A History of the Health Services for Africans in Southern Rhodesia. Harare: Mambo Press.
- Gelfand, M.** (1977). The Spiritual Beliefs of the Shona. Gwelo: Mambo Press.
- Gelfand, M.** (1979). Growing up in Shona Society: from birth to marriage. Harare: Mambo Press
- Gelfand, M.** (1984). The Genuine Shona: Survival values of an African Culture. Harare: Mambo Press
- Giddons, A.** (1993) Sociology (2<sup>nd</sup> ed) Press, T.J. Great Britain: (Padstow) Ltd.
- Giddons, A.** (ed) (1981). Introductory Sociology. London: Macmillan Press.
- Glanz, K., F. Lewis, et al.** (1990). Health Behaviour and Health Education: Theory, Research and Practice. San Francisco: Jossey-Bass.
- Goffman, E.** (1967) Interaction Ritual. New York: Doubleday Anchor.
- Green, A.** (1999). An Introduction to Health Planning in Developing Countries. Oxford: University Press.
- Green, L. and Kreuter, M.** (1991). Health Promotion Planning: an Educational and Environmental Approach. Mountain View: C.A.Mayfield.
- Green, L.W.** (1982). Community Health St Louis: Times Mirror/Mosley.
- Guijit, I. and Shah M.K. (eds.)** (2001). The myth of Community.: Gender issues in participatory development. Exeter: ITDG Publishing.
- Haggerty, P.A.** (1994). Community based hygiene education to reduce diarrhoeal disease in rural Zaire: impact of the intervention on diarrhoeal morbidity. International Journal of Epidemiology **23**(5):1050-9.
- Hall C.S and Linzey, G.** (1957). Theories of personality. New York: Wiley.
- Handy, C.** (1993). Understanding Organisations. London: Penguin.
- Harrison, J.A. et al,** (1992) A meta-analysis of studies of the Health Belief Model. Health Education Research. **71**.107-116
- Hart, C.** (1998) Doing a literature review: releasing the social science research imagination. London: Sage Publishing Press.
- Hassan M.K., Enayatullah and Khalique, A.** (1977). A Study of anxiety in school children as related to child rearing attitudes and some personality traits of parents. Indian Journal of Psychiatric Social Work. 1-7.
- Hausman, C.** (1998). Nonformal Education for Women in Zimbabwe: Empowerment Strategies and Status Improvement. European University Studies. Series XI. Education. Vol./Bd.751.Germany: Peter Lang GmH.
- Haviland, W.A.** (1993) Cultural Anthropology (7th ed.) University of Vermont. Florida: Harcourt Brace Publishers
- Hewstone, M and Stroebe W.** (eds.) Introduction to Social Psychology: a European perspective (2<sup>nd</sup> ed.) Oxford: Blackwell publishers.

- Heyns, R.W., Veroff, J. and Atkinson J.W.** (1958). A scoring manual for the affiliation motive. In JW Atkinson (Ed) Motives in fantasy action and society. Princeton NJ: Van Nostrand.
- Hill, A.** (1989) Introduction. Journal of Biosocial Science **10** (Suppl.): 1-4.
- Hole, M.H.** (1928) Old Rhodesian Days. London: Frank Cass and Company.
- Hopkins, J.R., Zelazo P.R., Jacobson, S.W and Kagan, J.** (1976). Infant reactivity to stimulus-schema discrepancy. Genetic Psychology Monographs. **93**: 27-62
- Horney, K.** (1945). Our inner conflicts. New York: Norton
- Hughes, A.J and Van Velsen, J.** (1955). The Shona and Ndebele of Southern Rhodesia. London: International African Institute.
- Hubely, J.** (1993) Communicating Health - an action guide to health education and health promotion. London: Macmillan.
- Huntington, E.** (1915) Civilization and Climate. New Haven, Con: Yale University Press.
- Huttly, S.R., Morris, S.S, and Pisani, V.** (1997). Prevention of Diarrhoea in young children in developing countries. Bull. World Health Organ; **75**: 163–74.
- IUHPE** (1986). Ottawa Charter; 1st International Conference on Health Promotion. Ottawa: International Union on Health Promotion and Education, and World Health Organization.
- Jackson, H.** (1992). AIDS Action Now, Harare: National AIDS Counselling Programme.
- Janis, I. L.** (1971). Groupthink. Psychology Today: 43-6.
- Janz N.K., and Becker, M.H.** (1984). The Health Belief Model: a decade later. Health Education Quarterly. **11**. 1-47.
- Jary, D and Jary J.** (1984). Collins Dictionary: Sociology (3<sup>rd</sup> ed.) Glasgow: Harpers Collins Publishers.
- Jewkes, R.** (1998). Community representatives: representing the community? Social Science and Medicine **46**: 843-58.
- Jewkes, R.** (2000). Evaluating Community Development Initiatives in Health Promotion in Thorogood, M and Coombes, Y. (Eds.) Evaluating Health Promotion: Practice and Methods. Oxford: Oxford University Press.
- Jewkes, R. and Murcott A.** (1996) Meanings of Community. Social Science and Medicine. **43**. (555-63)
- Jenkins, J.G.** (1933). Instructions as a factor in 'incidental' learning. Amer. Jour. Of Psychology **45**: 471-477
- Jung, C.G.** (1961). Memories, Dreams, reflections. (A.Jaffe, Ed.) New York: Random
- Kachur, S., Odhacha, A.M. et al** (1999). Maintenance and sustained use of insecticide-treated bed-nets and curtains three years after a controlled trial in Western Kenya. Tropical Medicine and International Health **4**(11): 728-735.
- Kandeh, H.B.** (1997). Community motivators promote use of emergency obstetric services in rural Sierra Leone. International Journal of Gyneacology and Obstetrics **59**(2): S209-18.
- Kanfer and Scheft.** (1988) in **Glanz, K., F. Lewis, et al.** (1990). Health Behaviour and Health Education: Theory, Research and Practice. San Francisco, Jossey-Bass.
- Kawachi, I.** (2002). Editorial: Social Epidemiology. Social Science & Medicine. **5**. 1739-1741
- Kawachi, I. and Berman, L.F.** (2000). Social Cohesion, Social Capital and Health in Kawachi, I and Berman, L. (Eds) Social Epidemiology. New York: Oxford University Press

- Kawachi, I., Colditz, G.A., Ascherio, A., Rimm, E.B., Giovannucci, Stampfer, M.J., and Willett W.C. (1996)** A prospective study of social networks in relation to total mortality and cardiovascular disease in men in the US. J Epidemiol Community Health, **50**. p.245-51
- Kawachi, I., Kennedy, B.P., Lochner, K., and Prothrow-Stith, D. (1997a)**. Social capital, income inequality and mortality. Am J Public Health. **87**:1491-8
- Kawachi, I., Kennedy, B.P., Wilkinson, R.G. (1999a)** Crime: social disorganisation and relative deprivation. Social Science & Medicine . **48**. p.719-713
- Kawachi, I., Kennedy, B.P., Glass, R. (1999;1989)** Social Capital and self-rated health: A contextual analysis. Am. J Public Health. p.1187-1193
- Kawachi, I., Levine, S., Miller, S.M., Lasch, K. and Amick, B. (1994)** Income Inequality and Life Expectancy: theory Research, and Policy. Joint Program on Society and Health Paper Series. Boston, Mass. Health Institute, New England Medical Centre. Working Paper. 94-2.
- Kawachi, I. and Kenedy, B.P. (2002.b)** The health of nations: why inequality is harmful to your health. New York: The New Press.
- Kawachi, I. and Berman LF. (2003)** Neighbourhoods and Health. New York: Oxford University Press.
- Keesing, R.M (1981)** Cultural Anthropology: A Contemporary Perspective (2<sup>nd</sup> ed) Australian National University. Florida: Harcourt Brace Publishers.
- Khan, M. (1982)** Interruption of shigellosis by hand washing. Transactions of the Royal Society of Tropical Medicine and Hygiene. **76**. 164-168
- Khan. K (2004) ???**
- Klepp, K. (1997)**. AIDS education in Tanzania: Promoting risk reduction among primary school children. American Journal of Public Health. **87**. (12) 1931-1936.
- Kileff, C and Kileff, P. (1985)** Shona Customs. Zimbabwe: Mambo Press.
- Kirkwood, B. (1988)**. Essentials of Medical Statistics. Oxford: Blackwell Science Ltd.
- Kirkwood, B. and Morrow, R. (1989)**. Community based intervention trials. Journal of Biosocial Science **10**. (Suppl.) 79-86.
- Knight-Bruce, G. (1895)** Memories of Mashonaland. London: Edward Arnold.
- Kotler, P and Roberto, E.L. (1989)** Social Marketing: Strategies for changing public behaviour. NY. Free Press.
- Kriel, A. (1971)**. An African Horizon. Communication **35**. School of African Studies. University of Cape Town.
- Kroeger, A. (1983)**. Health interview surveys in developing countries: a review of the methods and results. International Journal of Epidemiology **12**(4): 465-481.
- Kroeger, A., Meyer R. et al. (1996)**. Health education for community based malaria control: an intervention study in Ecuador, Colombia and Nicaragua. Tropical Medicine and International Health **1**(6): 836-846.
- Kumar, A. and C. Vlassoff (1997)**. Gender relations and education of girls in two Indian communities: Implications for decisions about childbearing. Reproductive Health Matters **10**: 139-150.
- Lansing, J.B and Heyns, R.W. (1959)**. Need for affiliation and frequency of four types of communication. Journal of Abnormal and Social Psychology. **58**: 365-372
- Levine, R. (1966)**. Dreams and deeds: Achievement motivation in Nigeria. Chicago: University of Chicago Press
- Levine, R. et al. (1976)** Failure of sanitary wells to protect against cholera and other diarrhoeas in Bangladesh. Lancet. **2**. 86-89
- Lerner, D. (1964)** The Passing of Traditional Society, New York: Free Press.



- Leslie, J.** (1989). Women's time; a factor in the use of child survival technologies? Health Policy & Planning. **4**. (1), 1-16.
- Lewin, K.** (1935). A dynamic theory of Personality. New York: Macgraw-Hill
- Lewin, S., Stephens C, et al.** Reviewing health impacts of improvement in water supply.
- Lloyd, L.**, (1996) The design of a community-based health education intervention for the control of *Aedes aegypti*. American Journal of Tropical Medicine and Hygiene. **50**. (4) 401-11
- Ling, J.C., Franklin, B.A., Linstead, J.K., Gearo, A.N.** (1992) Social Marketing: Its place in Public Health. Annual Review of Public Health. **13**. 341-62.
- Lipton, M.** (1977) Why the Poor Stay Poor. London: Temple Smith
- Loevinsohn, B** (1990). Health Education Interventions in Developing countries: A method-ological Review of Published Articles. International Journal of Epidemiology. **19** (4), 788-794.
- Loewenson, R.** (1999). Public participation in health - making people matter. Institute of Development Studies. IDS working Paper.84.
- Lorenz, K.** The past twelve years in the comparative study of behaviour. In CH Schiller (Ed) Instinctive Behaviour. New York: International Universities Press.
- Lundy, A.C.** (1981). The reliability of the Thematic Apperception Test. Unpublished manuscript. Harvard University. Department of Psychology and Social Relations.
- MacCormac, C. and Strathem, M.** Nature, Culture and Gender. Cambridge: Cambridge University Press.
- Mace, C.A.** (1935). Incentives: some experimental studies (Rep. 72) London; Industrial Health Research Board (Great Britain)
- Marks, D., Murray, M., et al.** (2000). Health Psychology: Theory Research and Practice. London: Sage Publications Inc.
- Marx, K.** (1938) Capital (2 Vols) London: George Allen & Unwin. (Transl. Das Capital)
- Maslow, A.** (1937) from Lowry. R. (Ed) 1973. Dominance, Self Esteem, Self Actualisation: Germinal Papers of A.H.Maslow. California: Wadsworth.
- Maslow, A.** (1943). A Theory of Human Motivation. Psychological Review **50**(4): 370-96.
- Maslow, A.** (1954). Motivation and Personality. New York: Harper & Row.
- Maslow, A.H.** (1967) A theory of metamotivation: The biological rooting of the value life. Journal of Humanistic Psychology. **7**. 93-127
- Maslow, A.** (1968). Towards a psychology of being. New York: Van Nostrand.
- Mathew, M.** (2004) Ensuring sustained beneficial outcomes for water and sanitation programmes in the developing worlds. Unpublished PhD thesis. Institute of Water and Environment. Cranfield University
- Mathew, M. & Makuwe, R.** (1999). Health clubs: hygiene education in Bikita IRWSSP, 25th WEDC Conference: Integrated Development for Water Supply and Sanitation. Addis Ababa, Ethiopia.
- Mattson, S.** (1998). Maternal Child Health in Zimbabwe. Health care for Women International **19**(3): 231-42.
- May, J.** (1983) Zimbabwean Women in Customary and Colonial Law. (Zambeziانا: Vol XIV) Zimbabwe: Mambo Press.
- May, J.** (1979) African Women in urban Employment: Factors influencing their employment in Zimbabwe. (Socio-Economic Series No.12). Zimbabwe: Mambo Press.

- Mayoux, L.** (1998). Women's empowerment and micro-finance programmes: strategies for increasing impact. Development in Practise **8**(2): 235-241.
- MacLean, P.D.** (1975). Sensory and perceptive factors in emotional functions of the triune brain. In Emotions: their parameters and measurement. Ed. Levi. L. New York: Raven.
- Mbizvo, M. T.** (1997). Effects of a randomised health education intervention on aspects of reproductive health knowledge and reported behaviours among adolescents in Zimbabwe. Social Science and Medicine **44**(5): 573-7.
- McClelland, D.C., Atkinson J.W., Clarke R.A., and Lowell E.L.** (1953). The Achievement Motive. New York: Appleton-Century-Crofts.
- McClelland, D.C.** (1967). The Achieving Society. New York, Free Press
- McClelland, D.C., Davis, W.B, Kalin, R. and Wanner, E.** (1972). The drinking man: Alcohol and human motivation. New York: Free Press
- McClelland, D.C.** 1975. Power: the inner experience. New York: Irvington.
- McClelland, D.C.** (1984). Human Motivation. Boston: Oxford University Press.
- McClelland, D. C.** (1987). Human Motivation. Cambridge: Cambridge University Press.
- McCormack, W. et al.**, (1969) Endemic cholera in rural East Pakistan. American Journal of Epidemiology. **89**. 393-404.
- McGrew, A.** (1992) The Third World in the new Global Order in Allen, T and Thomas, A (Eds.) Poverty and Development in the 1990's. Oxford: Oxford University Press.
- McNeil, P and Townley, C.** (eds.) (1982) Fundamentals of Sociology. South Africa: Hutchison & Co.
- Mead, M.** (1935). Sex and temperament in three primitive societies. New York: Morrow.
- Merton, R.** (1957). Social Theory and Social Structure. (revised ed.) Glencoe: Free Press.
- Miell, D. and R. Dallos,** (eds). (1996). Social Interaction and Personal Relationships. London: Sage Publications.
- Milburn, K., Fraser E, et al.** (1995). Combining methods in health promotion research: some considerations about appropriate use. Health Education Journal **54**: 347-356.
- Miller, J., Jones C, et al.** (1999). A new strategy for treating nets. Part 2. User's perceptions of efficacy and washing practices and their implications for insecticide dosage. Tropical Medicine and International Health **4**(3): 167-174.
- Minkler, M. and N. Wallerstein** (1997). Health Behaviour and Health Education: Theory, Research and Practice. San Francisco: Jossey-Bass.
- Mooney, M.** (1975). Assessing rural health education programmes in Rhodesia. 249-252.
- Mooney, M.** (1992). Health education, ecology and the shamanistic world view. Health Education Research **7**(2): 301-303.
- Morris, D.** (1987) Bodywatching: A field guide to the human species. London: Grafton Books.
- Morrow, A.L., Guerrero, M.L., Shults, J., Calva, J.J. et al.** (1999) Efficacy of home-based peer counselling to promote exclusive breastfeeding: a randomised controlled trial. The Lancet. **353**. 1226-1231.
- Mouton J. and Marais, H.C.** (1991). Basic concepts in the methodology of the social sciences. HSRC Series in Methodology. South Africa
- Mpofu, S.** (2001) Factors influencing Low cost sanitation coverage in Zimbabwe: A case Study of Tsholotsho District. Unpublished thesis for Post Graduate Diploma. Institute of Water and Sanitation Development. Harare.

- Munodawafa, D., Gwede. C. et al.** (1995). Using focus groups to develop HIV education among adolescent females in Zimbabwe. Health Promotion International **10**(2): 85-91.
- Munro, L.** (1994). Children and Women in Zimbabwe: a situation analysis. Harare: Unicef.
- Murray, C.** (1996). Rethinking DALYS. The Global Burden of Disease. 1st Ed. Cambridge: Harvard School of Public Health.
- Murray, C.** 1994. Quantifying the Burden of disease: the technical basis for disability adjusted life years. Bull. World Health. **72.** (3) 429
- Murray, H.A.** (1938). Explorations in personality. New York: Oxford University Press
- Mutswairo, S.M.** (1996). Introduction to Shona Culture. Zimbabwe. Juta.
- M.R.C.C.S.I.R.** (1997). The effect of water supply, handling and usage on water quality in relation to health indices in developing countries, Medical Research Council & Council for Scientific and Industrial Research.
- N.A.C /NCU** (2000). National Rural Water Supply and Sanitation Programme: Annual Progress Report. Harare, National Action Committee for Rural Water Supply and Sanitation/Ministry of Local Government and National Housing.
- N.A.C.P.** (1998). HIV/AIDs in Zimbabwe: Background, Projections, Impact and Interventions. Harare, National AIDs Co-ordination Programme/Ministry of Health and Child Welfare.
- Naidoo, B.** (2000). Evaluating the use of public health risk factor simulation models. Evaluating Health Promotion: Practice and Methods. Thorogood, M., Coombes.Y.,(eds) Oxford University Press.
- Narayan, D.** (1993) Participatory Evaluation: Tools for Managing Change in Water and Sanitation. World Bank Technical Paper 207. Washington DC.
- Narayan, D. and Srinivasin, L.** (1994). Participatory Development Tool Kit: Training Materials for Agencies and Communities. Washington DC: World Bank.
- Ncubane, H.** (1977). Body and Mind in Zulu Medicine. London: Academic Press.
- Newman, W.L.** (1997) Social Research Methods: Qualitative and Quantitative Approaches. (3<sup>rd</sup> ed) U.S.A: A Viacom Company.
- Nichols, P.** (1991) Social Survey Methods: A Fieldguide for Development Workers. (Development guidelines,v.6) Oxford: Oxfam.
- Nilses, C., Lindmark, G., et al.** (1997). Trends of Fertility Patterns of Women in Rural Zimbabwe. Health Care for Women International **18**: 369-382.
- Noppen, D.** (ed) (1996) Village level operation and Maintenance of Handpumps; Experiences from Karonga, Malawi. IRC Project and Programme Papers. 3. IRC. The Hague: International Water and Sanitation Centre..
- Nord, W. R.** (1970). Beyond the teaching machine: the neglected area of operant conditioning in theory and practice of management. Organizational Behaviour and Human Performance **4**(4): 375-401.
- Nutbeam, D.** (1998.a). Evaluating health promotion - progress, problems and solution. Health Promotion International. **13.** (1) 27-44.
- Nutbeam, D.** (1998.b.) The challenge to provide 'evidence' in health promotion. Health Promotion International. **13.** (4) 349-364.
- Nutbeam, D. and E. Harris** (1999.a). Theory in a Nutshell: A Guide to Health Promotion Theory. Australia, McGraw-Hill.
- Nutbeam, D. and E. Harris** (1999.b). The Evidence of Health Promotion Effectiveness: Shaping Public Health in a New Europe.
- Nyaku, A. and S. Diamenu.** (1997). Water and dirt - matters of life and death. World Health Forum **18**: 266-268.

- Owomoyela, O.** (2002). Culture and Customs of Zimbabwe. USA: Greenwood Press..
- Ozer, E. and Bandura, A.** (1990). Mechanisms governing empowerment effects: a self-efficacy analysis. Journal of Personality and Social Psychology **58**(3): 472-86.
- Pacey, A.** (1982) Hygiene and literacy. Waterlines. **1**. 26-29
- Parsons, T.** (1964) Evolutionary Universals in society. American Sociological Review. **29**.
- Patson, R., Batsleer J, et al.** (1992). Managing Change. Change, Conflict and Culture. R. Patson, et al. Milton Keynes: Open University. **2**.
- Palmer Development Group** (2004) Cost-Effectiveness Study of PHAST in Uganda. Unpublished Report for W.S.P/World Bank (Water and Sanitation Programme)
- Parcel, G.S., Perry, C.L., Taylor, W.C.** (1990) Beyond Demonstration: Diffusion of Health Promotion Innovations in Bracht, N. (ed) Health Promotion at Community Level. Newbury Park, C.A: Sage.
- Piel, M.** (1977). Consensus and Conflict in African societies. : An introduction to sociology. England : Longman.
- Piel, M. and Oyeneye, O.** (1998) Consensus, Conflict and Change: A sociological Introduction to Africa Societies. Nairobi.: East African Education Publishers.
- Perrow, C.** (1997). The Short and Glorious History of Organizational Theory. Organizational Behaviour - an Introductory Text. Buchanan, D. A. H. Gt. Britain: Prentice Hall, Europe: 3-13.
- Pickford, J., Barker P., et al.** (1993). Water, Sanitation, Environment and Development. 19th WEDC Conference, Accra, Ghana, Intermediate Technology Publication/WEDC.
- Pickford, J., Barker P., et al.** (1996). Reaching the Unreached: Challenges for the 21st Century. 22nd WEDC Conference, New Delhi.
- Pickford, J., Barker P., Elson B, et al** (1995). Sustainability of Water and Sanitation Systems., New Delhi, Intermediate Technology Publications/WEDC.
- Pickford, J., Barker P., Elson B et al** (1997). Water and Sanitation for All. 23rd WEDC Conference, Durban, WEDC.
- Pinfold, J. and Horan, N.** (1996). Measuring the effect of a hygiene behaviour intervention by indicators of behaviour and diarrhoeal disease. Transactions of the Royal Society of Tropical Medicine **90**: 366-371.
- Pinker, S.** (1997). How the Mind Works. London: Penguin.
- Poverty Eradication Action Plan.** (2004). Uganda: Ministry of Finance, Planning and Economic Development.
- Preston-Whyte, E. M.** (1995). 'Bring us the female condom': HIV intervention, gender and political empowerment in two South African communities. Health Transition Review Supplement to Vol. 5(5): 209-222.
- Prochaska, J. and di Clemente, C.** (1984). The Transtheoretical Approach: crossing Traditional Boundaries of Therapy. Homewood. Dow Jones Irwin.
- Prochaska, J. and C. di Clemente** (1997). Transtheoretical Model and Stages of Change. Health Behaviour and Health Education: theory, Research and Practise. Glanz. K.E.A. San Francisco: Jossey-Bass
- Prochaska, J.** (1994). Decisional balance for twelve problem behaviours. Health Psychology **13**: 39-51.
- Putman, R.D.** (1993)a. Making democracy work: civic traditions in modern Italy. Princeton NJ: Princeton University Press
- Putman, R.D.** (1993)b. The prosperous community. Social Capital and economic growth. Am Prospect. p.35-42

- Putman, R.D.** (1995) Bowling alone: America's declining social capital. J Democracy. 6:65-78
- Rabie, T.** (2002) A cluster randomised controlled trial to assess the impact of hand washing with soap on diarrhoeal diseases and acute respiratory infections in children in rural Upper Egypt. Unpublished M.Sc. Thesis. London School of Hygiene and Tropical Medicine. London.
- Remington, & MacDonald,** 1985
- Rasmussen, R.K & Rubert, S.** (1990) From Metuchen, N. & Scarenow, J. (Eds) Historical Dictionary of Zimbabwe
- Ritzer, G.** (1960) Sociological Theory. (4<sup>th</sup> ed). Singapore: McGraw-Hill Companies Inc.
- Rhodes, R.I.** (1970) (ed.) Imperialism and Underdevelopment: a Reader. New York: Monthly Review press
- Rhodesia Native Quarterly** (1926)1.1 (July-September) : 5-6
- Rogers, CR.** (1951). Client centred therapy: its current practice, implications, and theory. Boston: Houghton Mifflin.
- Rogers, E.M. & Neill, R.E.** (1966). Achievement motivation among Columbian peasants. East Lansing: Michigan State University
- Rogers, E.** (1983). Diffusion of innovations. New York: Free press.
- Ross, M.G. and Lappin, B.W.** (1967) Community Organisation: Theory, Principles and Practice. New York: Harper Row.
- Ross, S., Loening W, et al.** (1983). Breast-feeding evaluation of a health education programme. South African Medical Journal **64**: 361-3.
- Rostow, W.** (1960). The Stages of Economic Growth. Cambridge University Press.
- Rothman, J. and Tropman, J.** (1987). Models of community organisation and macro practice: their mixing and phasing. Stages of Community Organisation. Cox, F., Rothan, J. and Tropman, J. Itasca, Ill.: Peacock.
- Saludung, D.** (1997). Community Mobilization and Empowerment for Health. World Health Forum **18**: 274-277.
- Sayegh, J. and Mosley, W.** (1976). The effectiveness of family planning education on acceptance of contraception by post partum mothers. John Hopkins Medical Journal **139 (Suppl.)**: 31-37.
- Schaffer, R. and Thompson, H.** (1992). Successful change programs begin with results. Harvard Business Review: 80-9.
- Sen, A.** (1999). Development as Freedom. Oxford: Oxford University Press.
- Simanowitz, A.** (1997). Community participation / community driven. 23rd WEDC Conference, Durban, WEDC.
- Simard, P.** (1998). Assessing autonomy among Sahelian women: an analytical framework for women's production work. Development in Practise **8(2)**: 186-202.
- Schmidt, E.** (1992). Peasants Traders and Wives: Shona Women in the History of Zimbabwe, 1870-1939. Portsmouth, N.H. Heinemann Educational Books.
- Schumacher E.F. (1973)** Small is Beautiful: A study of economics as if people mattered. Sphere Books Ltd. London
- Smetana, J.G and Adler, N.E.** (1980). Fishbein's value x expectancy model: an examination of some assumptions. Personality and Social Psychology Bulletin. **6**. 89-96
- Smith, C.A.** (1976) Beyond Dependency Theory: National and Regional Patterns of underdevelopment in Guatemala. American Ethnologist. **5** (3) 574-617

- Smout, I and Appleton, B.** (1998) Guidance Manual on Water Supply and Sanitation programmes. London School of Hygiene/WEDC for Department of International Development (DFID)
- Stanton, B. and Clemens, J.** (1987). An educational intervention for altering water-sanitation behaviours to reduce childhood diarrhoea in urban Bangladesh. II. A randomised trial to assess the impact of the intervention on hygienic behaviours and rates of diarrhoea. American Journal of Epidemiology **125**: 292-301.
- Snyder, J and Merson, M** (1982) The magnitude of the global health problem of acute diarrhoeal disease: a review of active surveillance data. Bulletin of the World Health Organisation. **60** (4): 605-613
- Southwood. K.E.** (1969). Some sources of political disorder: a cross-national analysis. Unpublished doctoral dissertation. University of Michigan.
- Stanton and Clemens,** (1987) in Loevinsohn, B (1990). Health Education Interventions in Developing countries: A method-ological Review of Published Articles. International Journal of Epidemiology, **19** (4), 788-794.
- Stretcher and Roenstock,** (1997) The Health Belief Model. In Glanz. K. et al. Health Behaviour and Health Education: Theory, Research and Practice. San Francisco. C.A.: Jossey-Bass
- Stern, E.** (1991). Evaluating innovatory programmes. In Issues in Voluntary and Non-Profit Management. J. Batsleer., Comforth, C., and Paton, R. Milton Keynes. Open University/Addison-Wesley Publishing Co.
- Summers, C.** (1964) Colonial Lessons: Africans education in Southern Rhodesia, 1918-1940
- Sullivan, H.S.** (1953). The interpersonal Theory of Psychiatry. New York. Norton
- Srinivasan, L.** (1990). Tools for Community Participation. A Manual for Training Trainers in Participatory Techniques. PROWESS/United Nations Development Programme Technical Series Involving Women in Water and Sanitation. New York.
- Srivastava, V.K., Malik, G.K., and Agarwal, S.K.** (1981) Ascariid infestation in asthmatic children, Ind. L.J. Parasitology. **5**. 255-6
- Swanson, M.** (1910) The Sanitation Syndrome : Bubonic Plague and Urban Native Policy in the Cape colony, 1900-1909. Journal of African History **18**:3:387-410
- Sylvester, C.** (2000). Producing women and progress in Zimbabwe; narratives of identity and work from the 1980's. Portsmouth: NH Heinemann.
- Tannahill, A.** (1990). Health education and health promotion planning for 1990s. Health Education Journal **49**: 194-198.
- Tappe, M. K.** (1992). The Model of personal investment: a theoretical approach for explaining and predicting adolescent health behaviour. Health Education Research **7**(2): 277-300.
- Tareen, E. and Omar, M.** (1998). Empowerment at village level through a workshop method. Development in Practise **8**(2): 221-225.
- Tayeh, A. and Cairncross, S.** (1996). The impact of health education to promote cloth filters on dracunculiasis prevalence in the northern region, Ghana. Social Science and Medicine **43**(8): 1205-11.
- Terry, G and Calagas, B.** (2003). Financing the Millennium Development Goals for domestic water supply and sanitation. London. WaterAid.
- Tichagwa, W.** (1998). Beyond Equalities: Women in Zimbabwe. Zimbabwe Women Resource Centre and network and Southern African Research and Documentation Centre. Harare: Printopak.
- Thornton, R.** 1989). Community concept and practice in South Africa. Critique of Anthropology **9**: 75-87.
- Thorogood, M and Coombes, Y.** (Eds.) (2000) Evaluating Health Promotion: Practice and Methods. Oxford University Press. Oxford.

- Tinbergen, N.** (1951). The study of instinct. London: Oxford University Press.
- Torun, B.** (1982) Environmental and educational interventions against diarrhoea in Guatemala. In Chen.I. and Scrimshaw, N. (eds.) Diarrhoea and malnutrition interactions, mechanisms, and interventions. New York Plenum Press. 235-266
- UNDP/RWS-ESA** (1998). Participatory Approaches in Hygiene and Sanitation/PHAST: Regional Workshop Report. Harare.
- Unicef.** (1994) Children and women in Zimbabwe: a situational Analysis. Harare: UNICEF.
- Unicef.** (1998) Participatory Approaches in Hygiene and Sanitation/PHAST. Regional Workshop Report. Unicef. Harare.
- Unicef.** (1999.a.) Growing up in Zimbabwe: Considering the rights of Zimbabwean Children and their families. Summary of the 1999 Situational Analysis. Harare: Unicef.
- Unicef.** (1999.b.) Sanitation and Hygiene: a right for every child. New York: United nations Children's Fund.
- Unicef / USAID.** (1999) An Impact Evaluation of HIV/AIDS Education in Tertiary Colleges. Harare: Ministry of Education and Technology
- Unicef.** (2001). A Situational Analysis of Orphans and Vulnerable Children and Adolescents in Zimbabwe: Summary Report. Harare: Unicef.
- Unicef.** (2002) Knowledge, Attitudes Beliefs and Practices: A baseline Survey for the Government of Zimbabwe/Unicef. Country Programme of Cooperation. 2000-2004. Harare: Unicef.
- UNDP/WSP-ESA** (1999). Participatory Hygiene and Sanitation: Report on the perspective review of participatory methods with a focus on PHAST. Zimbabwe: Institute of Water and Sanitation Development.
- Unterhalter, E.** (2001). The capabilities approach and gendered education: An examination of South African complexities. Operationalising Sen's capability approach. Cambridge.
- Vambe, L.** (1976) From Rhodesia to Zimbabwe. Pittsburg: University of Pittsburg.
- Van Ryn, M and Heany, C.A.** (1992). What's the use of theory? Health Education Quarterly **19**(3): 315-330.1.
- Valente, T.W., Kim Y.M., Lettenmaier, C., Glass, W and Dibba, Y.** (1994) Radio promotion of family planning in the Gambia. International Family Planning Perspectives. **20**. (3) 96-100.
- Veroff, J., Depner, C., Kulka, R. and Douvan E.** (1980). Comparison of American motives; 1957 versus 1976. Journal of Personality and Social Psychology. **39**: 1249-1262.
- Victoria, C.G., Bryce, J., Fontaine, O., Monasch, R.,** (2000) Reducing deaths from diarrhoea through oral rehydration therapy. Bull World Health Organ; **78**: 1245–55.
- Ward, L and Wilson, J.P** (1980). Motivation and moral judgement as determinants of behavioural acquiescence and moral action. Journal of Social Psychology. **112** (2): 271-286
- Warren, W.** (1980) Imperialism and development'. World Development. **6**. (7/8) 92-36
- Waterkeyn, J.** (1999). Structured Participation in Community Health Clubs, 25th WEDC Conference : Integrated development for water supply and sanitation. Addis Ababa, Ethiopia.
- Waterkeyn, J** (2001). Quantifying the Cost-Effectiveness of the Community Health Club Strategy in Rural Areas of Zimbabwe (unpublished poster), Research in Progress. London: Royal Society of Hygiene and Tropical Medicine.
- Waterkeyn, J.** (2003). Cost Effective Health Promotion: Community Health Clubs, WEDC Conference Paper. Abuja: Loughborough University.

- Waterkeyn, J.** (2005) Decreasing communicable diseases through improved hygiene in Community Health Clubs. WEDC Conference paper. Kampala. Loughborough University.
- Waterkeyn, J & Cairncross S.** (2005) Creating a demand for sanitation and hygiene through Community Health Clubs: a cost effective intervention in two districts of Zimbabwe. Social Science and Medicine. **61**. 1958-1970.
- Waterkeyn, A.** (2001) Rural Water-Point Upgrading and Rehabilitation Project in Matabeleland North and Masvingo Provinces. DFIDCA . Final Project Progress Report: 2001.
- Waterkeyn, A. & Waterkeyn, J.** (2002). Unpublished. Final Report on behalf of Watershed: CARE International, Sierra Leone.
- Waterkeyn, J, & Waterkeyn, A** (2000). Demand Led Sanitation in Zimbabwe, *26th WEDC Conference: Water, Sanitation and Hygiene: Challenges of the Millennium*. Dhaka, Bangladesh.
- Waterkeyn, J & Waterkeyn, A.** (2004) PHAST and Community Health Clubs. Unpublished Report for WSP (Water and Sanitation Programme)
- Weber, M.** (1930. 1904) The Protestant Ethic and the Spirit of Capitalism. New York: Scribner
- Webser, A.** (1990). Introduction to the Sociology of Development. (2<sup>nd</sup> ed.) London: Macmillan.
- WEDC,** (1999). Lessons learned from NGO Experience in the Water and Sanitation Sector. Loughborough, WEDC.
- Weinrich,** (1982). African Marriage in Zimbabwe and the impact of Christianity.
- Werner, D.** (1979) (2<sup>nd</sup> ed.). Where There Is No Doctor. : a village health care handbook. Macmillan Publishers. London.
- Wetheral, M.** (1996). Identities, Groups and Social Issues. London: Sage Publications/Open University.
- White, A.** (1981). Community Participation in Water and Sanitation: concepts, strategies and methods. The Hague, International Reference Centre for Community Water Supply and Sanitation.
- WHO** (1983). New approaches to health education in primary health care. World Health Organisation Technical Report Series 690: 7-44.
- WHO** (1986). Ottawa Charter for Health Promotion. World Health Organisation Health and Welfare, Ottawa, Canada.
- WHO** (2002) The World Health Report, 2002: Reducing Risks, Promoting Healthy Life. WHO Library Cataloguing in Publication Data. Geneva.
- WHO/ Unicef-JMP.** (2000). Global Water Supply and Sanitation Assessment, 2000 Report. Joint Monitoring Programme for Water Supply and Sanitation. World Health Organisation. Geneva.
- WHO/ Unicef.** (2004). Meeting the MDG Drinking Water and Sanitation Target: A Mid term Assessment of progress. World Health Organisation. Geneva.
- WHO/ UNDP-World Bank Water and Sanitation Programme** (1997). The PHAST Initiative: Participatory Hygiene and Sanitation Transformation: Anew Approach to working with communities. WHO. Geneva
- Wilson, J. M. and Chandler, G. N.** (1993). Sustained improvements in hygiene behaviour amongst village women in Lombok, Indonesia. Transactions of the Royal Society of Tropical Medicine and Hygiene **87**(6): 615-616.
- Wingood, D.** (2000). Theory of gender and power and HIV. Health Education & Behaviour: 539-557.
- Wonderling, D. and J. Karnon** (2000). Economic evaluation of health promotion programmes. Evaluating Health Promotion; Practice and Methods. Thorogood M, Coombes Y. (eds)
- Wood, M.** (1993) A handpump for Africa: The Afridev Experience. Waterlines. 11. (4) 29-31.



- World Bank/WSP/AF** (2001). Summary of strategy and FY02 business plan: hygiene. Annual Regional Review, Nairobi.
- Winter, DG.** (1973). The Power Motive. New York: Free Press
- WSP (Water and Sanitation Programme).** (1999) Report on the Prospective Review of Participatory Methods with a focus on PHAST in Zimbabwe. World Bank/WSP. Nairobi
- WSP (Water and Sanitation Programme).** (2001) Annual Work Programme for Hygiene for 2002. Nairobi. World Bank
- WSP (Water and Sanitation Programme).** (2004). National Sanitation Strategy to enable 100% Adoption of improved sanitation and Hygiene. Ethiopia.
- Yalom, I. D.** (1975). The Theory and Practice of Psychotherapy. New York, Basic Books Inc.
- Zajonc, R.B. and Sales, S.M.** (1966). Social facilitation of dominant and subordinate responses. Journal of experimental and Social Psychology. **2**: 160 -168.
- Zajonc, RB.** (1980). Feeling and thinking: preferences need no interference. American Psychologist. **35**: 151-175.
- Zimbabwe A.H.E.A.D** (1999). Annual Report. Harare: Zimbabwe A.H.E.A.D.
- Zimbabwe A.H.E.A.D** (2000). Annual Report. Harare: Zimbabwe A.H.E.A.D.
- Zimbabwe A.H.E.A.D** (2001). Annual Report. Harare: Zimbabwe A.H.E.A.D.
- Zimbabwe A.H.E.A.D** (2005) Annual Report. Harare. Zimbabwe A.H.E.A.D
- Zuckerman, M.** (1974). The sensation seeking motive. Progress in Experimental Personality Research. **7**: 80-148.



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