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Health and Structural Adjustment in Rural and Urban Zimbabwe

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"They cry over nothing" so you say
The workers, town dwellers on the edge
The pensioners, the beggars, the unemployed youths
The underemployed, the retrenched
Ours is a cry of suffering people
Our cry is a demand for justice
But you say we cry over nothing
Our cry is becoming muted because of hunger
It is increasing in intensity again
Our cry is for sadza—parichi
Our cry is a plea for better health
A plea to be rescued from the epidemic of psychiatric illness
A plea for greater equality
A plea for meaningful participation in our story of life
A plea to be persons
A plea to be subjects, not objects of life
A plea to be agents of our liberation
A plea for economic transformation not adjustment
But you look down on us, "They cry over nothing"

from "Under ESAP we the poor scream"
by David Munhumeso

Contents

Foreword

This report is a product of an on-going longitudinal study on the implications of the Economic Structural Adjustment Programme (ESAP) of the Zimbabwean state on the country's health sector. The study is an integral part of the Nordiska Afrikainstitutet's research programme on *The Political and Social Context of Structural Adjustment in Sub-Saharan Africa* which was launched in October 1990. The first phase of the programme, co-ordinated by Peter Gibbon, ran from 1990 to October 1994 when the second phase started.

The data which Bassett, Bijlmakers and Sanders have analysed in this report was gathered in 1993 and 1994 and is being presented for the first time in this form in the hope that it will attract the attention of a wider audience and stimulate interesting responses. Being longitudinal in nature and based on repeat surveys with the same broad group of respondents in Chitungwiza and Murehwa, this report offers some of the best and most detailed insights into the effects which market-based economic reforms have had on the health sector of one African country. It is on this basis that I believe that both researchers and policy makers will find the issues which are discussed and analysed interesting.

During the course of 1995, another round of interviews and focus group discussions was undertaken in Chitungwiza and Murehwa with the respondents whose health-seeking practices have been followed since 1993. A further follow-up survey is being planned for 1996. At the end of the survey, it is hoped to produce a comprehensive report that will attempt to make sense of the trends observed over the period 1993 to 1996.

At this stage, we would like to extend our thanks to the Swedish International Development Cooperation Agency (Sida) and the Norwegian Agency for Development Cooperation (NORAD) for their financial support to the Nordiska Afrikainstitutet's research programme on structural adjustment in Africa generally and the Zimbabwe health sector study in particular.

Readers who have enquiries about this report are welcome to contact the authors directly through the Department of Community Medicine, University of Zimbabwe, Harare, Zimbabwe or the structural adjustment research programme co-ordinator at the Nordiska Afrikainstitutet in Uppsala, Sweden.

Adebayo Olukoshi
Programme Co-ordinator

Preface

The "Health and Structural Adjustment in Rural and Urban Settings in Zimbabwe" research project is part of a larger research programme entitled *The political and social context of structural adjustment in Sub-Saharan Africa*, which was launched in October 1990 by the Nordic Africa Institute in Uppsala, Sweden. Along with a number of other research projects on adjustment-related social and economic change in Ghana, Kenya, Nigeria, Tanzania, Zambia and Zimbabwe, the health and structural adjustment research project in Zimbabwe receives its main funding from SIDA (the Swedish International Development Agency), through the Nordic Africa Institute. Additional funding for specific project components was granted by the local NORAD and SIDA offices in Harare.

The health and structural adjustment research project was developed on the basis of a position paper produced by Frances Chinemana and David Sanders in January 1992, which was presented and discussed at an international workshop in Harare in March 1992. The paper was published in 1993 by the Nordic Africa Institute along with work from other authors (Chinemana and Sanders, 1993). A project proposal was forwarded to the Medical Research Council of Zimbabwe (MRCZ) in early 1993. Project activities started almost immediately after official approval was received from the MRCZ in May 1993. The first project phase ended in early 1995 and funding was secured for a second phase which will continue until February 1996.

The results of the first year of project operations were presented and discussed at a conference in Kampala, Uganda, in April 1994. They were published by the Nordic Africa Institute in 1995 (Bijlmakers, Bassett and Sanders, 1995), along with two other research papers related to structural adjustment in Zimbabwe. This publication was launched at another international conference, jointly organised by NAI and the SAPES Trust in Harare, in May 1995.

The current report comprises the results of household surveys conducted during the first two years of the project. The introductory chapter gives an overview of structural adjustment in Zimbabwe and reviews Zimbabwe's performance in the economic and social sectors during the pre-adjustment and early adjustment period (up to 1993).

Chapter 2 describes the methodology employed to study socio-economic changes, as well as changes in health and health-seeking behaviour at the household level in one urban and one rural area. Chapter 3 describes the results of this study, for which the same households were visited twice in two consecutive years (May–June 1993 and May–June 1994). Chapter 4 puts the findings in the context of the macro-economic and social changes that have taken place since 1993, relates them to other literature and draws some conclusions. It also discusses two major policy issues that have emerged from the research so far.

Some of the work that was completed in the first project year will not be repeated in full in this report, although reference will be made to it in the final chapter. This concerns a series of focus group discussions that were held with nurses and community members, in which the main focus was on survival and professionalism amongst health workers and the quality of care. The results form part of the 1995 publication by Bijlmakers, Bassett and Sanders.

Still forthcoming is an analysis of changes in clinic attendance in the two study areas since 1991, which shows a strong correlation between changes in user fee policies and clinic attendance. Also still in the write-up stage is a report on household case studies that were conducted in early 1995, with a view to investigating further the causes of changes in nutritional status that were detected among under-fives in the household surveys conducted in 1993 and 1994.

In the third year of the project, which started in early 1995, the same households that were involved in the 1993 and 1994 surveys were visited for follow-up interviews. Also, more qualitative research was undertaken in the second half of 1995 to explore certain issues in a more in-depth manner. A full report of these findings is scheduled to come out by the end of 1996.

Whereas the primary concern remains to identify policy implications for health sector development and general socio-economic development in Zimbabwe, it is expected that the research project will also contribute further to the international debate about the desired response by national governments and international organisations to changing economic conditions.

Acknowledgements

We are grateful to SIDA, Sweden, for funding this research project and to the NORAD and SIDA offices in Harare for funding specific components of the study.

Special thanks go to Peter Gibbon and his successor Adebayo Olukoshi at the Nordic Africa Institute in Uppsala, Sweden, for organising funding and for the technical support.

We thank the health authorities in Chitungwiza and Murehwa for allowing us to carry out the project, and involving their staff. Special thanks go to Dr Simoyi, Dr Bossyns, Dr Lasore, Dr Macq, Ms Mukanda, Dr Renfrew and Dr Vincent. Their cooperation is greatly appreciated.

Mr Nicholas Madziwanzira from the Community Medicine Department, University of Zimbabwe, remains invaluable for the organisation of our field work, translating questionnaires into Shona, and for data entry.

All research assistants worked very hard to accomplish their task of conducting household interviews, for which often more than one visit per household was needed. Ms Maggie Chikore, Ms Ratidzai Mapfungautsi, Ms Esnart Maponga, Ms Deliwe Matsika and Ms Engena Muzivi: we thank them all and are confident that they will maintain the high standard of work for the remainder of the project.

Dr Glyn Chapman joined the project early in 1995 as the new local coordinator based in Harare. His critical comments on earlier versions of this report were very useful.

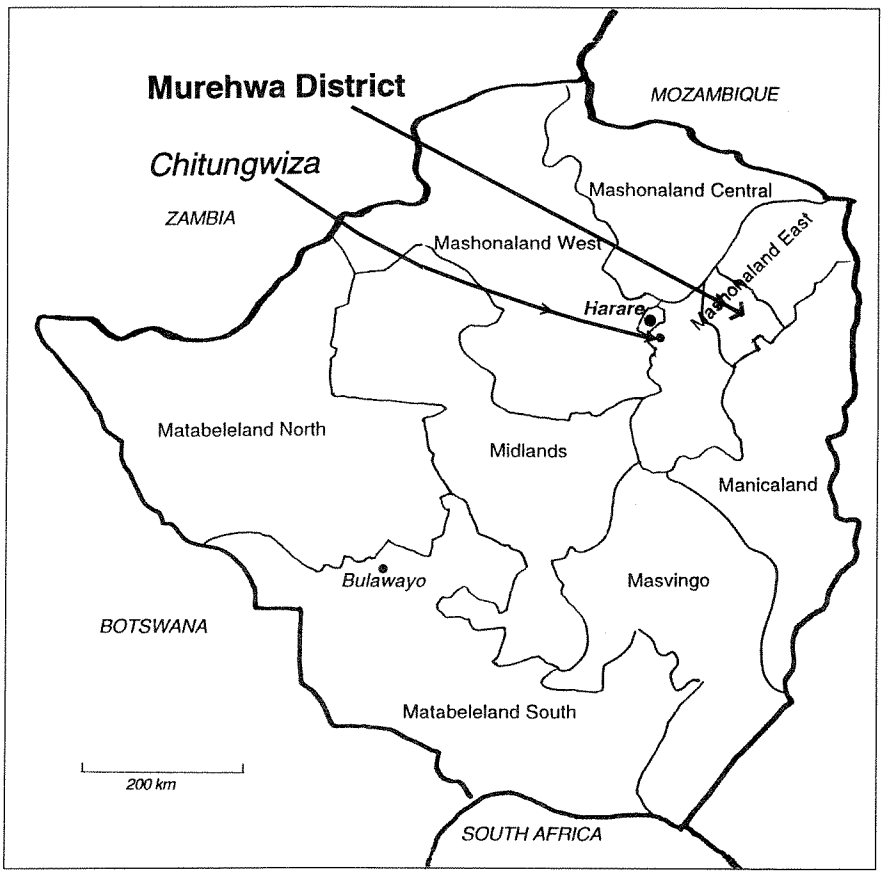
And finally, we are indebted to all community members and health professionals who were willing to participate in interviews and to share information, experiences and ideas. We will keep relying on their kind cooperation for the future success of this project.

Leon A. Bijlmakers
Mary T. Bassett
David M. Sanders

Abbreviations

AIDS	Acquired immuno-deficiency syndrome
AFC	Agricultural Finance Corporation
ANC	Antenatal care
ARI	Acute respiratory infection
c.i.	confidence interval
CPI	Consumer price index
CSFP	Child Supplementary Feeding Programme
CSO	Central Statistical Office
EPI	Expanded Programme on Immunization
ESAP	Economic Structural Adjustment Programme
ETP	Employment and Training Programme
GDP	Gross domestic product
GOZ	Government of Zimbabwe
HIV	Human immuno-deficiency virus
IMF	International Monetary Fund
MMB	Medicus Mundi Belgium
MOHCW	Ministry of Health and Child Welfare
MRCZ	Medical Research Council of Zimbabwe
NAI	Nordic Africa Institute (formerly, Scandinavian Institute of African Studies)
NGO	Non-governmental organisation
NORAD	Norwegian Agency for Development Cooperation
p.	probability
PAAP	Poverty Alleviation Action Programme
RHC	Rural health centre
r.r.	relative risk
SAP	Structural Adjustment Programme
SAPES	Southern Africa Political Economy Series Trust
s.d.	standard deviation
SDA	Social Dimensions of Adjustment Programme
SDF	Social Development Fund
SIAS	Scandinavian Institute of African Studies (now Nordic Africa Institute)
SIDA	Swedish International Development Agency
STD	Sexually transmitted disease
SWP	Social Welfare Programme
TB	Tuberculosis
VCW	Village community worker
WB	World Bank
UNDP	United Nations Development Programme
UZ	University of Zimbabwe
ZWD	Zimbabwe Dollar

Map of Zimbabwe



1. Introduction

1.1 Background

Structural adjustment in Zimbabwe

The Economic Structural Adjustment Programme (ESAP) was formally introduced in Zimbabwe in October 1990, but started in earnest in March 1991 after a meeting with foreign aid agencies and the World Bank in Paris. The framework of ESAP was spelt out in the January 1991 document entitled *Zimbabwe: A Framework for Economic Reform (1991–95).* The ESAP package, as outlined in this document, contains the standard features of IMF/World Bank economic reform strategies, including, *inter alia*, (GOZ, 1991a): a reduction in the budget deficit through a combination of cuts in public enterprise deficits and rationalisation of public sector employment; trade liberalisation, including price decontrol, and deregulation of foreign trade, investment and production; phased removal of subsidies; devaluation of the local currency; and enforcement/introduction of cost recovery in the health and education sectors.

Economic indicators

Between independence in 1980 and 1991, the performance of the national economy fluctuated considerably. In the immediate post-independence period, Zimbabwe's real income as measured by the gross domestic product (GDP) per capita rose to a peak of ZWD 484 in 1981, then fell slightly to ZWD 477 in 1982 and then declined further to fluctuate around ZWD 453 until 1990. Average real earnings in the formal sector (excluding agriculture) rose from ZWD 2213 per annum in 1979 to a peak of ZWD 2758 in 1982. After that, they declined to ZWD 2091 in 1987 (Loewenson *et al.*, 1991). The boom in the first two to three years after independence was clearly followed by a stabilisation period that lasted until 1990, when the real per capita income was about the same as that in 1980. Some of the economic indicators for Zimbabwe for the period 1988 to 1993 are summarised in Table 1.

It was unfortunate that a severe drought, the worst this century, hit the country in 1991/92. The maize harvest was reduced by over 80 per cent compared to previous years. As a result, Zimbabwe was forced to resort to imports and food aid for its grain requirements. The reduced agricultural output also caused shortages in the agro-industrial sectors. Combined with water and electricity shortages, reduced consumer demand, and high interest rates, this resulted for the year 1992 in a 7.7 per cent fall in real GDP and a 10.5 per cent decline in real GDP per capita (GOZ, 1993b). Following the drought, the World Bank estimated that it would take three to four years before Zimbabwe would recover to its 1990 per capita income levels, even if the rains continued to be good. During 1993, a partial economic recovery occurred. Real GDP officially rose by 1.7 per cent, but this still implied a net economic contraction since the start of the ESAP (Gibbon, 1995).

In accordance with the aims of the ESAP, the Zimbabwe dollar was devalued against all major foreign currencies. The biggest devaluation came in early 1993, when the local currency was allowed to depreciate by 35 per cent over less than three months. In August 1992, subsidies on super-refined maize meal were completely removed while those on roller meal and bread were reduced. In June 1993, maize marketing regulations were liberalised and the last subsidies on maize meal and bread were removed, after which bread riots broke out in some urban areas.

Table 1: *Economic indicators for Zimbabwe (adapted from GOZ, 1993b)*

	1988	1989	1990	1991	1992	1993
Domestic product:						
Real GDP (1990, in million ZWD)	4143	4332	4426	4641	4284	4357
Real GDP per capita (in ZWD)	453	459	455	462	413	407
Prices (1980=100):						
CPI (December)[1]	281.8	321.9	377.8	489.6	716.4	834.2
Inflation rate		14.2%	17.3%	29.0%	46.3%	20.0%
Food CPI	302.0	364.7	435.4	572.2	984.5	1182
Food inflation rate		17.3%	19.4%	31.4%	72.6%	24.5%

[1] Consumer Price Index

Table 1 also shows that the official inflation rate had mounted to 46.3 per cent in 1992, whereas the inflation rate for food was estimated at 72.6 per cent. For 1993, the figures were estimated at 20.0 per cent and 24.5 per cent respectively (GOZ, 1993b).

Social indicators

Government commitment to maintaining mass access to health services in Zimbabwe was beyond question in the 1980s. This policy of consistent real increases in public financing of health services could not be sustained under conditions of the ESAP. Although the share of government expenditure allocated to the health sector was kept at around the level maintained during the 1980s (about 6 per cent; 5.9 per cent for the 1993/94 fiscal year; GOZ, 1993b), the pressure to reduce expenditure led to a significant decrease in real per capita expenditure in the early 1990s (Table 2). Real per capita expenditure on health had risen from ZWD 10.25 in 1980/81 to a peak of ZWD 14.78 in the 1990/91 fiscal year, despite the relatively low average annual GDP growth rate of 3.1 per cent over that period. It fell by 17.9 per cent in 1991/92, and by a further 11.5 per cent in 1992/93 (Chisvo and Munro, 1994).

Public financing of the education sector shows similar trends. Per capita real recurrent expenditure, which stood at around ZWD 38 in the late 1980s up until the 1990/91 fiscal year, fell to around ZWD 32 in the next two years. Primary education was affected more than higher education (Chisvo and Munro, 1994).

Table 2: *Health expenditure indicators for Zimbabwe (adapted from GOZ, 1993b; and Chisvo and Munro, 1994)*

	'88/89	'89/90	'90/91	'91/92	'92/93
GOZ health budget					
Nominal expenditure (million ZWD)	329.0	421.4	566.8	631.4	802.5
Share of total budget	6.0%	6.5%	6.8%	5.7%	6.0%
Real expenditure (1990, million ZWD)	403.1	453.0	513.4	433.9	396.3
Real per capita expenditure (ZWD)	12.39	13.50	14.78	12.14	10.74
Change (%)	+1.9%	+9.0%	+9.5%	-17.9%	-11.5%

Health status

During the 1980s, infant mortality (children under one year of age) in Zimbabwe declined from pre-independence levels of 120 to 150 per

1000 live-births, to 61 by 1990. Child mortality (children one to four years) declined from 40 per 1000 in 1980, to 22 in 1990 (UNICEF, 1994). However, evidence is now accumulating that mortality figures have started to rise in the late 1980s and on into the 1990s, and that the gains made in the previous decade are being reversed. This trend is attributed to several factors that reinforce each other: the declining per capita expenditure on health and the declining quality of health services, the drought, the HIV/AIDS epidemic and the general deterioration in living conditions for large segments of the population (UNICEF, 1994).

No negative trend has been observed with respect to child nutritional status. UNICEF (1994) reports that several sources indicate that overall malnutrition levels remained remarkably consistent during the period 1989–92. The proportion of children who have a low weight for their age remained relatively high at 15 to 20 per cent in all age groups. The proportion of stunted children (i.e. those who are short for their age) in a national random sample survey conducted in 1992 was nearly 30 per cent during the first and second years of life and between 20 and 25 per cent during the third and fourth years of life. Malnutrition is not evenly distributed throughout the country, though. It is more prevalent in the drought-prone provinces of Matabeleland North and South and Masvingo. Also, a rural child is almost twice as likely to be malnourished (as measured by mid-upper arm circumference) as a child from an urban high density area (UNICEF, 1994).

Health service user fees

In 1991, the Zimbabwean government began systematically to enforce the collection of user fees for health services which it had earlier introduced in 1985. Those earning more than ZWD 150 per month were made to pay for health services. Unemployed people and those earning less than ZWD 150 were entitled to free treatment. A letter from the local councillor or from a social welfare officer could serve as proof of eligibility for free treatment.

A new regulation, announced in November 1992, raised the income level for free treatment from ZWD 150 to ZWD 400 per month. Shortly afterwards, in January 1993, the government abolished fees at rural health centres and most rural hospitals, in order to alleviate the effects of the 1991/92 drought on rural populations. It should be noted, though, that most council and mission clinics con-

tinued charging fees. In June 1993, user fees were reintroduced at rural government health facilities.

Several other policy changes with regard to user fees were introduced in the course of 1994 and 1995. The most dramatic change occurred in January 1994 when a huge increase in charges for all services was effected. This will be described in more detail in Chapter 4, where the impact of these changes will also be discussed.

Government's response to alleviate adverse effects of ESAP

The government of Zimbabwe recognised that "... during the period of transition, certain population groups would be adversely affected by the changes in the economic environment ..." and it therefore "... resolved to protect and support the vulnerable, particularly during the hardships associated with the initial phase of the ESAP ...". In this spirit, a Social Dimensions of Adjustment programme was designed. A detailed outline of the activities to be undertaken within this programme was provided in a document published in November 1991 entitled *Social Dimensions of Adjustment (SDA): A programme of actions to mitigate the social costs of adjustment.* The objectives of the SDA were (GOZ, 1991b) to effectively target and design programmes for disadvantaged groups over the economic reform period, while minimising costs to the treasury, by maximising participation and support from third parties, notably NGOs, employee organisations, employer organisations and local authorities.

The major areas targeted for action were employment and training; targeting of food subsidies; cost recovery and social services; and monitoring and evaluation. To co-ordinate the first three activities, a Social Development Fund (SDF) was established to operate two main programmes, namely the Employment and Training Programme (ETP) and the Social Welfare Programme (SWP). Both programmes were to be coordinated by the Social Welfare Department of the Ministry of Labour, Public Service and Social Welfare. The SWP mainly involved the targeting of subsidies in the areas of food, health and education.

While the SDF measures were intended to work as a safety net to protect the vulnerable, their implementation was hampered by a number of factors. This will be discussed in Chapter 4. Recognising that the impact of the SDF was minimal, especially in non-urban areas, the government launched a new *Poverty Alleviation Action Plan,*

in October 1993. The details of this plan and the implementation status to date will also be discussed in Chapter 4.

It should be emphasised here that prior to the ESAP and the social safety nets that were designed along with it, there were other measures in place that aimed at protecting people from starvation, especially those in drought stricken areas. The biggest drought mitigation operations were the nation-wide 1983/84 drought relief and child supplementary feeding programmes (CSFP). After the severe drought in 1991/92, these programmes became operational again. In early 1993, drought relief maize rations were distributed to 5.5 million out of the 10.4 million people living in Zimbabwe and almost 1.1 million children received supplementary feeding. Also, drought recovery packages of maize seed and fertiliser were distributed to communal and resettlement farmers in 1993 and into 1994 (UNICEF, 1994).

1.2 Rationale for the research project

The relationship between macro-economic change, including economic structural adjustment, and health has been studied in a large number of countries in sub-Saharan Africa. Evidence from many of these studies shows the negative effects that structural adjustment can have on both the health sector and people's health status. The current project was designed with a view to monitoring and documenting the changes that took place during the structural adjustment process in Zimbabwe. Through the project, started in 1993, about two years after inception of the ESAP, an attempt is being made to collect as much data as possible that reflects the changes that have occurred since 1990/91.

The serious drought that hit Zimbabwe, as well as most other parts of Southern Africa, in 1991/92, has definitely had its impact on the government's ability to implement ESAP. It has also complicated attempts at pin-pointing the specific impact which structural adjustment has had so far on the population's health status and people's ability to cope with ESAP. These developments pose some methodological questions that will be discussed in section 1.3.

It has been a concern for those involved in the project that the outcome of the research be both meaningful and useful. A great interest in the project has been shown, both within the country and outside, by government and non-governmental organisations as well as multi- and bilateral donor organisations and officials from the

World Bank. Health workers and community members at the research sites who learn about the project, and whose collaboration is being sought to make the project a success, show great interest in cooperating and learning more about the results and how these will be utilised to redress some of the negative effects of ESAP.

It is sincerely hoped that the results already obtained, as well as those still to come, will indeed be utilised and fed into policy decisions at the highest levels. At the local level, the practical information generated by involving urban and rural communities, as well as governmental and non-governmental organisations, will hopefully result in action-oriented interventions that reach the most vulnerable groups.

1.3 Methodological considerations

Some of the methodological issues which must be taken into consideration in conducting research relating to structural adjustment and its impact, particularly in respect of health and health services, are highlighted in this section. As will become clear, while the economic reform programme in Zimbabwe is expected to have a major impact on almost every economic and social sector, it is extremely difficult to isolate and attribute causality to the effects of such a programme alone in a rigid, one-to-one fashion. The focus of research is, therefore, more feasibly, directed at monitoring the extent and nature of overall change in the health sector during the period of economic reform. A range of indicators may be utilised for monitoring purposes, but decisions about selection for inclusion (particularly in a research project of limited duration) must be based on an understanding of the existence of some other key influences and important contextual issues.

The influence of reforms inside and outside the health sector

Firstly, there was a need to look at factors (specific economic reform components) which originate *outside* the health sector, as well as at those which originate *inside* the health sector. Historical and contemporary experiences have shown that there is a definite but complex relationship between economic growth on the one hand and health status on the other. In general, sustained economic growth over the long run does lead to improved health and nutritional status, but there is, however, no direct correlation between health and nutrition indicators and GDP per capita because improved income distribu-

tion—even at low levels—can accelerate improvements in health. In the short term, the inter-relationship is even more complex. There are examples of countries in which high growth has been associated with a decline in health status as reflected by the normal indicators (Brazil), but there are equally cases where severe economic decline has been associated with significant improvements in health status (Chile, Tanzania), suggesting that issues of access and equity are important.

Evidence from many countries shows that income is probably the most important of the outside factors, while others include social inputs such as education, environmental inputs, such as access to clean water, and general economic measures, such as food rationing and subsidies, and so forth. Factors originating inside the health sector are the usual range of health care provisions: for example, hospitals, health services, health personnel, immunisation, etc.

Although health sector inputs may appear to be the most obvious determinants, the effects of non-health sector inputs are probably more important. While it is relatively easy to achieve rapid improvements in health as measured by the standard quantitative indicators (which are in reality disease indicators), sustained improvements in the quality of life are more difficult to produce and measure. For instance, certain indicators, such as infant and child mortality rates, may be rapidly improved by selected health care interventions targeted at these high risk groups. There is, however, little evidence to suggest that improved nutrition levels, for example, can be maintained by the application of this technical package in the absence of more general improvements in access to resources.

Given the foregoing, it is clear that in assessing changes in health services and health status which may be related to structural adjustment, it is necessary to analyse the influence of factors operating both inside and outside the health sector.

Different types of indicators and factors influencing their appearance

Changes in health status and health services may be assessed by two different types of indicators: those relating to *process* and those relating to *outcome*. While both are important, they have distinctly different characteristics, particularly in respect of ease of interpretation. In general, it is easier to attribute causality to process indicators, while outcome indicators are more likely to be influenced by a number of factors, additional to the direct impact of economic changes.

The initial changes experienced in Zimbabwe after one or two years of structural adjustment were most immediately reflected by changes in process indicators: rising prices, differing utilisation of services after the implementation of user charges, etc. They are likely to be followed in the medium- to long-term by changes in outcome indicators, relating to patterns of morbidity and mortality, and changes in nutritional status. Additional process indicators may be discernible in the longer term, too; for example, changes in the quality and quantity of health service provision as public expenditure cuts reduce manpower levels, access to recurrent funds and thus overall service delivery capacity.

Changes in certain indicators which may be used to monitor trends accompanying structural adjustment relating to health and health services may, thus, take considerable time to become apparent. Furthermore, some indicators, both of process and outcome, may well be subject to seasonal variation. For example, disease incidence—which affects health service utilisation—is influenced in some cases by climatic factors, e.g. malaria, diarrhoea. Also, during the agricultural season (from October to April), labour demands at the household level may reduce utilisation, particularly in the case of rural women. Finally, in terms of outcome indicators, it is recognised in rural Zimbabwe that childhood nutritional status is usually worse during the agricultural season and improves in the immediate post-harvest period.

The influence of factors other than economic reforms

There exists a fundamental problem of directly attributing changes, in respect of both process and outcome indicators, to the impact of the modalities and interventions of the structural adjustment programme. It is difficult to separate the impact of adjustment policies from that of other influences, both historical and contemporary. Thus, it must be recognised that the economic reform programme in Zimbabwe became operational in the context of the existing effects of previous economic and social inequalities, already operating as determinants of access to and utilisation of resources. There are also influences already in place relating to pre-existing health status; for example, many children were already affected by chronic undernutrition prior to the ESAP. Some influences on health status in the population in general result themselves from a number of factors which are in part independent of economic factors. Droughts, such as the severe one of 1991/92, can definitely have a serious impact,

which cannot be easily isolated from the influence of ESAP. Also, in respect of disease-specific outcomes, such as malaria, seasonal and climatic influences are of particular importance. Diseases with a long latent period, such as AIDS and hypertension, may only become apparent during the ESAP implementation period. It is, therefore, almost impossible to disaggregate the influence of economic reforms and other factors.

In view of the above, it was believed that, ideally, time series comparisons would need to be made between equivalent seasons in successive years. This implied that the research period as a whole had to be extended over at least two consecutive years. For the purpose of the current research project, a range of indicators is being monitored. Indicators were chosen on the basis of the criteria that they were likely to be easy to measure meaningfully, and not be too greatly influenced by factors other than those resulting from economic reform strategies, and that they were likely to be indicative of immediate (although not necessarily immutable) change, particularly at the household level.

1.4 Objectives

The general objective of the research is to measure the changes occurring in health and health services, during the implementation of the structural adjustment programme, through the monitoring of selected indicators.

The specific objectives of the study are:

a. To assess to what extent price rises have reduced the value of disposable household incomes and to what extent this leads to changes in food purchasing and consumption.

b. To determine whether any changes have occurred in employment status (formal as well as informal employment), and the effect on disposable income, time utilisation (especially women's time utilisation for child care) and food purchasing and consumption.

c. To determine people's health-seeking behaviour (utilisation of health services and other forms of care in case of illness) and to assess the role of factors such as cost and perceived quality of services in making choices; to assess whether any changes can be detected over time.

d. To determine households' expenditures on various forms of health care—in absolute terms and as a proportion of household income.

e. To identify and describe the strategies used by people to cover major expenses, specifically for health care.

f. To monitor the nutritional status of under-five year old children and, if any change is observed, to identify the possible causes.

g. At health facility level, to determine whether any changes occur (or have occurred) in utilisation of specific health services (for acute, minor and chronic diseases) and to explore the possible reasons for these changes.

h. To describe the capacity of health services to cope with the numbers of patients they are getting, specifically their ability to deal with AIDS-related illness.

i. To uncover perceptions of both the general public and professional health workers on issues related to professionalism of health workers and quality of care.

j. To promote the utilisation of the findings of this study in policy making at national level, as well as in planning and management of health services at provincial and district levels.

1.5 Operational method and guidelines

Three guiding principles informed the operational method employed in undertaking the research project:

a. The study had to investigate both *quantitative and qualitative* factors as both are important to understanding the impact of economic reform on the health sector. Thus, while it was necessary to obtain figures on health facility utilisation rates, it was found equally essential to engage in discussions with community members and key informants at the local level, to elicit perceptions and ideas about changes occurring in these rates, and to seek "popular" explanations for them. Local knowledge gained in this manner is crucial in defining the relative importance of influences other than those of the economic reform programme.

This approach implied the use of questionnaires at the household level, together with focus group discussions at the community level, through which ideas about and attitudes towards the SAP and its specific impact in relation to health and health services could be explored.

b. In keeping with the above, the research was to adopt a *participatory* approach to investigation and data collection. For the research to be practicable and meaningful, it had to be tied to policy development, and based on an action-approach. Presentation of documen-

tary evidence on the levels of changes and their influence on various population groups, including "vulnerable" groups, would be of limited utility if it served only to add to the academic literature.

It is more fruitful to investigate the changes associated with SAP by drawing on the experiences of those affected, and as part of this research process, facilitating the framing of responses and strategies at the local level, where data collection is carried out. Information collected in this manner can have a multiplier effect, and act as a tool for advocacy purposes at all levels. It was therefore necessary to involve communities, both urban and rural, as well as those governmental and non-governmental organisations which play a significant role in health service provision at the community level.

c. *Comparative* data were considered important. As noted earlier, differential access to health services, and differential health status are factors which existed prior to the implementation of SAP, and are largely determined by the structural imbalances occurring between and within the urban and rural areas. Differential access to environmental inputs, health care facilities, income and other inputs or services is clearly distinguishable along this rural-urban demarcation. It was therefore necessary to undertake monitoring in at least one rural and one urban area.

In addition, given the objective of the SDA initiatives to maximise the participation of non-government organisations (NGOs), it was considered essential for the rural research site to be one associated with an NGO presence. In the Zimbabwean context, this implied that the rural area chosen should have a mission hospital, as well as government facilities of a comparable level, so that comparisons could be obtained on changes in the utilisation of services at both kinds of facility.

To satisfy the above, it was decided that research be conducted in:

- Chitungwiza, a large conurbation situated about 30 km south of central Harare, the capital city of Zimbabwe; and
- Murehwa district: located in Mashonaland East province, with Murehwa growth point situated at about 70 km to the north of the provincial capital Marondera, and at about 80 km to the east of Harare.

Chitungwiza was established in the mid-1970s to accommodate the rapid urbanisation resulting from the changing nature of the economy and the escalating war of national liberation. Few economic opportunities exist in Chitungwiza and many of the employed people commute to and from Harare on a daily basis. The official

population of Chitungwiza, according to the 1992 census, was 274,912, of which 49.8 per cent were females (CSO, 1994). 39 per cent of the population was below 15 years of age, while only two per cent was 60 years or older. The activity rate, which is the rate of economically active persons among those who are 15 years or older, was calculated at 63 per cent. Of these, less than a third were females (32 per cent). 61 per cent of the economically active persons were paid employees, 13 per cent worked for their own account and 24 per cent reported to be unemployed (the remaining two per cent fell in other categories). Households had 4.4 members on average, and 19 per cent of households were headed by females. With respect to tenure status, it is worth mentioning that not less than 56 per cent of households in Chitungwiza were lodgers, five per cent were tenants and 37 per cent were owners or purchasers of the house they were occupying at the time of the census (CSO, 1994).

Murehwa district comprises mainly communal farming areas and a small commercial farming area (Chitowa), that are administered by a rural district council. According to the 1992 census, the population of Murehwa district was 152,505, of which 52.2 per cent were females (CSO, 1993). Forty-eight per cent of the population was below 15 years of age and seven per cent was 60 years or older. The activity rate was calculated at 62.4 per cent. While the average household size in the district was 4.8 members, not less than 40 per cent of the households in Mashonaland East province as a whole were female-headed (CSO, 1993). This is mainly because a large group of male migrant workers stays in Harare, away from their families, for most of the year. Agricultural production is fairly good compared to other parts of the country but has varied considerably in the past few years. The estimated production of white maize in the entire district was 800,000 bags (of 91 kg) in the 1990/91 season, a mere 156,000 bags in 1991/92, when there was the severe drought, and over 1.4 million bags in 1992/93 (Agritex, personal communication). Other important crops are sunflower, rapoko, ground nuts and cotton.

Chitungwiza is served by one hospital and four municipal clinics. This extensive urban area was chosen for the study because it was already the site of a community health programme in progress through the Department of Community Medicine, in the University of Zimbabwe's Medical Faculty.

Murehwa District has two hospitals, one of which is owned by the Catholic mission (St Paul's hospital at Musami mission), and 12 rural health centres, of which five are owned by the government, six by the rural district council and one by the mission (Nhowe clinic).

The district receives long-term technical and financial health sector support from Medicus Mundi Belgium (MMB), a non-governmental organisation.

Thus, in terms of data sources, the following are being utilised:

- four clinics and one hospital in Chitungwiza;
- two hospitals and 12 rural health centres in Murehwa district;
- households in both areas;
- community members and key informants in both areas.

Data collection methods include the following:

- Measurement of parameters at clinics and hospitals in both Chitungwiza and Murehwa district, covering:
  * in-patient and out-patient attendances;
  * usage of facilities, including pharmacy;
  * patterns of morbidity;
  * fee for service and exemption policies.
- A baseline household survey conducted in May–June 1993 through interviews, in some 300 households in each of the two areas, covering:
  * demographic data;
  * employment status and sources of income;
  * household expenditures on food, housing, clothing, etc.;
  * illness episodes and health-seeking behaviour;
  * costs incurred in seeking treatment;
  * nutritional status of children;
  * maternal histories and outcome of pregnancies.

This baseline survey was repeated in May–June 1994 among the same households, in order to detect any changes in the topics of interest. The survey was conducted again among the same households in May–June 1995 to allow for further time-series analysis.

- In-depth questionnaire interviews undertaken in 60 to 70 households in each of the two areas, every three months over a 15 month period, to monitor changes in critical variables, such as:
  * sources of income;
  * patterns of expenditure and household consumption;
  * food consumption patterns among members of households;
  * illness episodes and health-seeking behaviour;
  * willingness and ability to pay for health services;
  * household coping strategies in the case of major expenses;
  * situation of pregnant women;

    * time utilisation of women;
    * behavioural change in view of the HIV/AIDS epidemic;
    * nutritional status of children.
- Focus group discussions with community members in both areas, to discover their perceptions of standards of health services, observations of any recent changes in these, ideas about the possible causes of these changes, and suggestions about what might be done at the local level in response to the situation.
- Focus group discussions with nursing staff of the clinics and hospitals in the two areas, to investigate their experiences with service delivery to patients and raise ideas about strategies that might be adopted in response to the impact of the ESAP on clinic and hospital functioning.
- Case studies through in-depth interviews with members of some of the households involved in the baseline household survey, to explore reasons for changes in child nutritional status that were detected after having repeated the survey.

The present report contains the results of the two large household surveys conducted in 1993 and 1994.

2. Methods

2.1 Definition of the study population

Baseline household surveys were conducted in May–June 1993 in one urban area (Chitungwiza) and a rural area (Murehwa district). The study population was defined as *households with one or more children aged 12 to 59 months*. Households were defined as comprising all those people who lived together for most of the week and who usually shared their meals.

The restriction of the study population to households with children in the age range of one to four years was based on the assumption that under-fives are most vulnerable to adverse socio-economic conditions in terms of their health and nutritional status. Those under one year of age were excluded because of the technical difficulties of height measurements. In May–June 1994, one year after the initial baseline household survey, *repeat interviews* were held in the same households. Households that had changed residence since the first interview and whose new addresses could be located were included in the repeat survey.

All interviews were conducted with adults only, i.e. those 18 years of age or older. Research assistants were instructed to encourage participation of more than one adult, if available, provided they formed part of the household. For all households involved in the study, the first and second interviews were conducted by the same research assistant.

2.2 Sampling

In order to be able to draw conclusions that would be valid for the entire populations of households in Chitungwiza and Murehwa district respectively, representativeness of the two samples was a requirement.

Sample size

Based on prior experience, it was expected that between 150 and 200 households would be adequate to compare urban and rural areas.

However, in order to accommodate subgroup comparisons (e.g. employed versus non-employed, female versus male headed households, households with well-nourished children versus those with malnourished children), the sample size was increased to 300 to 400 per area. This sample size was also based on previous work done by medical students in Chitungwiza who found that about 50 per cent of households had at least one episode of illness among their members over a four-week period. A four-week recall period of household illness and actions taken was thought to be reasonable. Since health and treatment-seeking behaviour were important aspects of the baseline survey, the requisite sample size would need to generate data from 150 to 200 households with illness episodes in each of the two study areas. To achieve these aims and taking into account the resources available, a target of 300 households was set for each of the two study areas, Chitungwiza and Murehwa district.

Sampling method for Chitungwiza

The sampling method applied for Chitungwiza households was of a multistage nature, combining cluster sampling and systematic sampling procedures. This was done as follows: Chitungwiza is divided into 24 administrative wards, each comprising between 400 and 2,400 stands. According to the 1992 census, each ward had between 1,050 and 4,550 households, and populations of 4,700 to 21,200 (CSO, 1994a). The list of wards provided a sampling frame for the selection of clusters from which households could be sampled. However, more popularly known than the wards are the town areas and town units: St Mary's area, Zengeza area (Units 1 to 5), and Seke North and South areas (Units A to P).

Based on information obtained from the Planning Department and the Health Department at Chitungwiza Town Council, town units were divided into four categories according to the socio-economic status of the households: upper (two units), upper middle (six), lower middle (eight) and lower category (five). Wards were then selected in such a way that units from all the above four categories were included. Through a combination of purposive and random sampling, ten wards were selected out of the total of 24 (see appendix I).

Using lists of stand numbers as a sampling frame, systematic sampling was then applied to select 25 stands from each of the ten wards (taking every n^{th} stand). Thus 250 stand numbers were obtained. Each of the five research assistants was assigned to two

wards, and they were each given a list of the selected stand numbers to take into the field.

It was realised that at a particular stand there could be one eligible household, more than one eligible household or none at all. Research assistants were instructed to include all eligible households living at the selected stands. If no eligible household was found at a selected stand, the next nearest household was selected as a replacement. In the case that people were absent at a selected stand or household, two call-backs on subsequent days were made before replacing the stand or abandoning the household.

Sampling method for Murehwa district

In Murehwa district, the sampling method that was applied was also a combination of cluster and systematic sampling. Unlike for Chitungwiza, though, primary schools were used as a sampling frame. Primary schools are much more densely spread than rural health centres in Zimbabwe, and over 90 per cent of children attend primary school. Using primary schools' catchment areas, rather than those of rural health centres, as sampling clusters ensured that communities far from a health facility had an almost equal chance of being selected as those that were close to a health facility.

Out of the total of 63 primary schools in Murehwa district, a weighted sample of 20 was obtained (taking into account the total enrolment at each school). Each of the five research assistants was assigned to four schools. The list of 20 selected schools is given in the appendix.

When out in the field, the research assistants used the school registers to perform a systematic sampling of five Grade One school children (taking every n^{th} child on the list). The research assistants went for interviews to the homesteads of each of the children selected. From the area around each of these homesteads, two more households were selected by choosing the fourth and eighth household on a straight line in a randomly chosen direction from the original household. As in Chitungwiza, if no eligible household was found at a selected homestead, the nearest homestead was taken. Thus, 15 household interviews were to be conducted for each of the 20 clusters.

2.3 Research instruments used

Interviews of household members were the main research technique used to collect information in both the 1993 baseline survey and the 1994 repeat survey. Questionnaires were very comprehensive and covered the following areas:

- Household composition and housing situation;
- Employment, rural holdings, income and expenditure, savings and debts;
- Health (including utilisation of health facilities, paying status, recent episodes of illness in the household, treatment-seeking behaviour, expenses incurred in seeking treatment, and satisfaction with treatment);
- Delivery and antenatal clinic attendance by mothers.

The questionnaires were translated from English into the local language, Shona, for use in the field.

Apart from interviews, children's heights and weights were measured. In the 1993 baseline survey, this was done for all children aged one to four years (12 to 59 months) who formed part of the household. In the 1994 repeat survey, measurements were taken for all children aged one to five years (12 to 71 months), thereby including those children who were too young at the time of the baseline survey, and retaining those who had had their fifth birthday. Children who would have been eligible but who were absent in 1993 were included in 1994, provided they belonged to the household.

Height was measured with the child standing in an upright position on a flat surface against a wall or door frame, using a tape measure and a wooden headpiece on top of the child's head to make a right angle with the head held straight. Heights were read to the nearest 0.5 cm. Weight was measured using a hanging scale of 25 kg capacity with a pair of weighing pants. Weights were read to the nearest 0.1 kg. All research assistants were provided with their own set of measuring equipment, to be carried into the field.

2.4 Organisation of field work

Five research assistants were recruited and contracted to conduct the baseline household interviews. All five were women and had considerable prior experience in conducting household interviews for various organisations. Prior to the 1993 baseline survey, they participated in a four-day training, which comprised a theoretical introduc-

tion to the objectives and methodology of the research project; an explanation of the sampling procedures to be used in the field; a revision of both the English and the Shona version of the household questionnaire; a theoretical and a practical session on measurement of height and weight in under-fives; a brief session on quality control, safe storage of completed questionnaires and supervision; a pre-test in the field, during which sampling procedures, introduction of the project to members of eligible households, questioning, anthropometric measurements and recording were tested and practised; and an evaluation of the pre-test, during which final amendments were made to the questionnaire.

The baseline survey was conducted between May 5th and June 4th, 1993, in Chitungwiza, and between June 7th and July 3rd, 1993, in Murehwa district. In Chitungwiza, each research assistant was assigned to two wards, and they were provided with lists of stand numbers to be visited. In Murehwa district each research assistant was assigned to four primary schools, from which children were to be sampled according to the procedures described in section 2.2. The repeat survey was conducted 12 months later, between May 2nd and June 3rd, 1994, in Chitungwiza, and between June 6th and July 8th, 1994, in Murehwa district.

The research assistants were advised to check the data at the end of each day of field work, and to complete or correct information where necessary. Supervision was provided by two of the principal researchers and the research supervisor.

For data entry, processing and analysis, Epi-Info software was used. Anthropometric measurements were entered in a separate file using the anthropometry programme of Epi-Info, which calculates various indices per individual child for the variables weight-for-age, weight-for-height and height-for-age.

3. Findings

3.1 Description of samples

The target of conducting 300 household interviews in the 1993 baseline survey in each of the two areas, Chitungwiza and Murehwa district, was met. In Chitungwiza, the number of interviews that were conducted was 327 from 247 different stands. In Murehwa district, 300 household interviews were completed. Repeat interviews in the 1994 survey were held with 281 and 278 households in Chitungwiza and Murehwa district respectively, corresponding to follow-up rates of 86 per cent and 93 per cent (see Table 3).

Table 3: *Number of completed household interviews in the 1993 baseline survey and the 1994 repeat survey*

	No. of household interviews		Follow-up rate
	1993	1994	
Chitungwiza	327	281	85.9%
Murehwa district	300	278	92.7%
Total	627	559	89.1%

In most households, interviews were held with one female adult. In Chitungwiza an average of 1.3 adults per household participated in the baseline interviews, and 1.2 adults participated in the repeat interviews. In Murehwa district, the averages were 1.4 and 1.3 respectively. 78 per cent and 83 per cent of interviewees in the two consecutive surveys in Chitungwiza were females, whereas in Murehwa district this was 85 and 81 per cent.

The total number of children whose heights and weights were measured in the 1993 baseline survey was 769 (384 in Chitungwiza, 385 in Murehwa district). Of these, 46 children (six per cent) were not included in the analysis of nutritional status. This was either because the measurements were incomplete or implausible, or birthdates were missing, or the children did not fall within the required age range of 12 to 59 months. The number of children with complete and valid measurements was 363 for Chitungwiza and 360 for Murehwa district (see Table 4). In the 1994 repeat survey, a total of 582 children

were measured (275 in Chitungwiza and 307 in Murehwa district). Of these, 18 children (three per cent) were not included in the analysis because of incomplete or implausible measurements. A significant proportion of the children measured in 1994 were not measured in 1993, as they were either not present at that time or they were less than 12 months old. The number of children for whom complete measurements were obtained in the two consecutive years was 219 for Chitungwiza and 238 for Murehwa district, resulting in follow-up rates of 60 per cent and 66 per cent respectively. Table 4 summarises this information.

Table 4: *Number of children with valid and complete measurements in Chitungwiza and Murehwa district*

	No. of children with valid and complete measurements		Children with repeat measurements
	1993 (12–59 months old)	1994 (12–71 months old)	
Chitungwiza	363	268	219 (60.3%)
Murehwa district	360	296	238 (66.1%)
Total	723	564	457 (63.2%)

The 1993 survey data were analysed to find out in what respect the households not followed up in 1994 differed from those that were followed up. Households in Chitungwiza that were less likely to be followed up were those that did not own the house they were living in at the time of interview in 1993 (relative risk = 9; 95% confidence interval = 2.9 to 28.4) and those that reported illness episodes amongst their members (r.r. = 1.9; 95% c.i. = 1.1 to 3.2). Households in Murehwa district that were less likely to be followed up were also those that did not own the house they were living in (r.r. = 2.5), as well as those that were on medical aid (r.r. = 4.2; 95% c.i. = 1.4 to 12.5).

Because of concern that there might have been differential loss of follow-up according to nutritional status, the 1993 survey data were analysed to identify special characteristics of children measured in 1993 but missed in 1994. It was found that loss of follow-up was not related to nutritional status at baseline.

3.2 House ownership and household mobility

In Murehwa district, the large majority (84 per cent) of households included in the 1993 baseline survey owned the house they were

living in. Fifteen per cent stayed for free in someone else's house and only one per cent were renting. In Chitungwiza, house ownership was just 25 per cent. Fifty-five per cent were renting, six per cent stayed for free and the remaining 14 per cent were in the process of buying the house ("rent-to-buy"). In the 1994 repeat survey, about two-thirds of the Chitungwiza households (66 per cent) reported that they were paying rent, compared to just one per cent in Murehwa district.

Households in Chitungwiza were found to be very mobile, with 20 to 25 per cent of households per year changing residence since 1992. In the 1993 baseline survey, 14 per cent had stayed less than six months at the place they were occupying at the time of the interview and about one third (34 per cent) had stayed less than 18 months (see Table 5). The 1994 repeat baseline survey showed that 23 per cent of the households (76 out of 327) had changed residence during the 12 months since the first interview. Fifty per cent of these (38 out of 76) were followed up for interviews at their new addresses, and the reasons given for moving house included: unaffordable rent (14 households), house was too small or did not have electricity (13 households), and other reasons (14 households). The majority of households followed up had remained within Chitungwiza (34 out of 38). Of those who were not followed up, some were reported to have gone to live in the rural areas.

Table 5: *Households' length of stay at residence in Chitungwiza and Murehwa district*

	Chitungwiza (n=327)	Murehwa district (n=300)
before 1980	13%	39%
1980–1984	21%	22%
1985–1989	21%	20%
1990	5%	5%
1991	6%	3%
1992	20%	8%
1993 (first 5–6 months)	14%	2%
TOTAL [1]	100%	100%
mid-1993 to mid-1994 [2]	23%	3%

[1] Data from 1993 baseline survey

[2] From 1994 repeat survey

Household mobility was much less in Murehwa district, where only ten per cent of households had changed residence in the 18 months prior to the 1993 baseline survey (see Table 5). During the 12 month period between the first and the second interview, only three per cent had moved house (ten out of 300; three were followed up for interview).

3.3 Demographic and other household characteristics

The mean household size in Murehwa district was slightly larger than in Chitungwiza, and had increased slightly between 1993 and 1994 in both areas (see Table 6). The rural area, however, had fewer adult men and more children compared to the urban area. Thirty-nine per cent of households in Murehwa district in 1993 had no adult man, compared with nine per cent in Chitungwiza. The child-to-adult ratio was, therefore, much higher in Murehwa district than in Chitungwiza.

Changes in household composition, other than through birth or death, were found to be frequent. Of the households that were re-interviewed in Chitungwiza in 1994, 17 per cent had had one or more people joining the household during the previous 12-month period, while in 20 per cent, one or more members had left the household. In Murehwa district, this was 15 and 19 per cent, respectively.

Table 6: *Household composition in Chitungwiza and Murehwa district (mean values, 1993 and 1994)*

	1993	1994
Chitungwiza	(n=327)	(n=281)
members per household	5.84	5.93
adult women	1.45	1.48
adult men	1.25	1.24
children below 18 yrs	3.14	3.21
child/adult ratio	1.16	1.18
Murehwa district	(n=300)	(n=278)
members per household	5.97	6.08
adult women	1.44	1.42
adult men	0.81	0.87
children below 18 yrs	3.72	3.78
child/adult ratio	1.65	1.65

Questions on church membership, which were asked in the 1994 repeat survey, revealed that about one out of six households in

Chitungwiza and one out of six households in Murehwa district considered themselves as not belonging to any church (see Table 7). Membership of Apostolic Faith churches, many of which are against the use of modern health care, was almost 20 per cent in both study areas.

Table 7: *Church membership in Chitungwiza and Murehwa district (1994)*

	Chitungwiza (n=281)	Murehwa district (n=278)
Roman Catholic	20%	23%
Apostolic Faith	20%	18%
Methodist	15%	19%
Anglican	4%	8%
Zimbabwe Assembly of God Africa	5%	6%
Seventh-Day Adventist	6%	2%
Salvation Army	4%	3%
Other churches	11%	1%
Total church membership	84%	79%
Not affiliated	16%	21%

3.4 Birth and death

Between the 1993 and 1994 surveys, there had been 42 births in each of the two study samples. During this same 12 month period, there had been 14 deaths in Chitungwiza, and 19 in Murehwa district. Two households, one in each area, had had two cases of death. Two other households in Murehwa lost the husband/father who, as the breadwinner, was living and working in Harare.

Crude birth rates were calculated at 25.2 per 1000 population per year for Chitungwiza and 24.9 per thousand per year for Murehwa district. These are lower than the crude birth rates (obtained through direct methods) found in the 1992 national census, which were 34.6 and 32.6 for Chitungwiza and Murehwa district, respectively (CSO, 1994a; CSO, 1993).

The 14 deaths recorded in the Chitungwiza sample and the 19 deaths recorded in the Murehwa sample translate into mortality rates of 8.4 per 1000 per year for Chitungwiza and 11.2 per 1000 per year for Murehwa district. These figures compare well with the crude death rates found in the 1992 national census: 7.94 for Chitungwiza and 11.1 for Murehwa district (CSO, 1994a; CSO, 1993).

Of the 33 people who died in both areas combined, nine were females, 23 were males and the sex of one infant was not recorded.

There were three infants (below one year) and six children between one and four years old. Eighteen out of the 33 died in a hospital. Three out of the six one to four year-old children who died were severely malnourished (according to the 1993 anthropometric measurements). In at least one case, this was known to be AIDS-related.

3.5 Socio-economic status

Employment status

The households that were visited again in 1994 were asked about changes in employment situation. In Chitungwiza, ten households (four per cent) reported to have lost and found employment; another ten households (four per cent) reported loss of employment without having found an alternative; and 19 (seven per cent) had found employment. Thus, there was a small net increase in employment of three per cent. In Murehwa district, four households (one per cent) reported they had lost and found employment, whereas 16 households (six per cent) reported loss and 12 (four per cent) reported new employment, resulting in a small net decrease in employment of two per cent.

The overall employment status of households in 1994 was as shown in Table 8. About three-quarters of the household in Chitungwiza had at least one member who was formally employed. In Murehwa district, this was only 14 per cent. The proportion of adult members of households (18 years and above) who were earning an income from formal employment in 1994 was calculated at 29.3 per cent for Chitungwiza and 3.9 per cent for Murehwa district.

About half of the households in Murehwa district had an employed family member staying elsewhere, and of these, more than two-thirds received money from them on a regular basis. In 1994, 33 per cent of all households in the Murehwa district study group had the husband/father staying elsewhere because of employment (mostly in Harare) and a further 13 per cent had another employed family member staying elsewhere (in most cases a son or a sister). The total of 46 per cent of households with an employed family member staying elsewhere, was slightly lower than that found for the 1993 sample, which was 52 per cent. 70 to 72 per cent of the Murehwa households with one or more family members staying elsewhere received money from them on a regular basis, whereas 23 to 24 per cent received money occasionally. Of the total sample of households in Murehwa district, 44 per cent were receiving remittances.

Table 8: *Household sources of income in Chitungwiza and Murehwa district (1994)*

	Chitungwiza (n=281)	Murehwa district (n=278)
Income from both formal and non-formal employment	39.3%	9.7%
Income from formal employment only	35.0%	4.0%
Income from work in non-formal sector only	23.2%	85.3%
Not working, dependent on remittances	2.5%	1.1%

In Chitungwiza, only seven to eight per cent of the households had one or more employed family members staying elsewhere who were remitting money. In most cases this was the husband/father or a son, staying in Harare. Three households had someone remitting money from South Africa.

Sources of income

A steady diversification in reported sources of income since 1991 was found for Chitungwiza households (see Table 9). Between 1991 and 1993, households had increased their sources of income from an average 1.34 to 1.52 (13 per cent increase), and further to 1.70 in 1994 (12 per cent increase). In Murehwa district, it was only between 1993 and 1994 that households had started diversifying their sources of income. In 1991, the rural households had 1.50 sources of income on average. In 1993, this had hardly changed (1.51), but one year later, it had increased by 44 per cent to 2.17 sources of income per household. In 1994, only 20 per cent of the rural households relied on one source of income compared with more than half of the households one year earlier.

Wages from formal employment formed the most important source of income for two-thirds of the households in Chitungwiza (1994; see Table 10). Vending and trading was the most important source of income for 17 per cent of the households, followed by remittances (six per cent). In Murehwa district, the sale of crops and/or garden produce was the most important source of income for more than half of the households, followed by remittances (27 per cent) and wages (seven per cent).

Table 9: *Number of sources of income per household in 1991, 1993 and 1994*

	1991 [1]	1993	1994
Chitungwiza	(n=327)	(n=327)	(n=281)
1 source	67.0%	53.5%	40.9%
2 sources	30.6%	40.7%	48.8%
3 sources	2.4%	5.8%	8.9%
4 sources or more	0.0%	0.0%	1.4%
Murehwa district	(n=300)	(n=300)	(n=278)
1 source	53.4%	53.7%	20.9%
2 sources	42.3%	41.7%	47.8%
3 sources	4.0%	4.3%	25.5%
4 sources or more	0.3%	0.3%	5.8%

[1] Sources of income in 1991 were those as reported in the 1993 survey

Table 10: *Major sources of income for Chitungwiza and Murehwa district households in 1994*

Rank	Chitungwiza (n=281)		Murehwa district (n=278)	
1	Wages	67.6%	Sale of crops	51.1%
2	Vending and trading	17.1%	Remittances	27.0%
3	Remittances	6.0%	Wages	6.8%
4	Other [1]	9.3%	Other [1]	15.1%

[1] Other sources of income include: shop keeping, small-scale manufacturing, pensions, house rent, motor mechanics, maintenance work, brick moulding, lending money for profit, etc.

Rural holdings

Land use rights in the 1993 baseline survey were claimed by 22 per cent of households in Chitungwiza and by 93 per cent of households in Murehwa district. Cattle ownership in 1993 was reported by 14 per cent of households in Chitungwiza and by 52 per cent of households in Murehwa district.

Food production

The large majority of households in Murehwa district harvested maize: 93 per cent in 1993 compared with 95 per cent in 1994. Self-sufficiency in maize was reported by 76 per cent of the households

involved in the 1993 baseline survey. One year later, this was 80 per cent. These differences, however, are not statistically significant.

The impact of the 1991–92 drought was probably responsible for the observed shift in types of agricultural products. Rapoko, sunflower and sorghum were the most important crops other than maize in 1993, in that order. The most popular crop in 1994 was ground nuts, which were grown by two-thirds (66 per cent) of all households. Sunflower, rapoko and beans were all mentioned less frequently (26, 17 and 7 per cent of all households).

In Chitungwiza, growing maize appeared to have become more popular. Whereas in 1993, 12 per cent of all households harvested maize (or 53 per cent of those who had land), this had increased to 21 per cent in 1994 (or 70 per cent of those who had land). This difference is statistically significant ($p<0.01$ and $p<0.05$, respectively). Self-sufficiency in maize had almost doubled from nine per cent of all households to 16 per cent ($p<0.01$).

Sale of agricultural produce did not change much in Murehwa district, where around 60 per cent of the households that had a harvest reported they intended to sell or had already sold some of their crops. In Chitungwiza, however, sale of crops by households reporting a harvest had decreased from 64 per cent in 1993 to 38 per cent in 1994. It is concluded that the new food growers in Chitungwiza mainly produce for their own consumption.

Food consumption

In the 1993 baseline survey, the majority of households in both study areas (79 per cent in Chitungwiza and 73 per cent in Murehwa district) said they were no longer buying certain food items because of expense. Meat, bread, rice and cooking oil were the most frequently mentioned items in this regard. A follow-up question that asked whether certain food items were being consumed less than before was answered affirmatively by 91 and 73 per cent of the respondents in the two respective areas. Here the items that were mentioned most frequently were bread, cooking oil, meat, mealie meal and sugar. Remarkable was the high proportion of urban households who had reduced the amount of *sadza* (the staple food in Zimbabwe which is made from maize meal) that they consumed (31 per cent of all households). In Murehwa district, this was the case in five per cent of all households.

In the 1994 survey, 23 per cent of the households in Chitungwiza and eight per cent in Murehwa district claimed that since the first

interview (12 months earlier), they had experienced times when they did not have enough food to feed the family. In the majority of these households in Chitungwiza (59 per cent), this had been the case throughout the year, whereas for 20 per cent it had lasted for three months or less. For the households in Murehwa district, such precarious food situations had held on for shorter periods (25 per cent the whole year, 45 per cent for 3 months or less).

The most important food items that had become unaffordable for Chitungwiza households were meat (91 per cent of households reporting food shortages), bread (40 per cent), milk (35 per cent) and potatoes (21 per cent). Maize meal, rice, sugar, margarine, cooking oil, fish, eggs and peanut butter were each mentioned by 10 to 13 per cent of the households reporting food shortages. In Murehwa district, 82 per cent of the households with food shortages (or six per cent of all households) said they did not have enough maize meal. Meat (32 per cent), cooking oil (23 per cent) and bread (18 per cent) were also mentioned in this connection.

Food aid and other assistance

When the baseline survey was conducted in Murehwa district in 1993, the Child Supplementary Feeding Programme (CSFP), which was started in mid-1992 after the severe drought, was still operational. In most places, this programme was stopped in late 1993. The Food-for-Work programme, which was also started in 1992, was discontinued in April 1993 in most places, and somewhat later in a few other places when construction projects were completed. The baseline survey showed that between January and June 1993, 44 per cent of the households had participated in the CSFP, and 41 per cent in the Food-for-Work programme. No households benefited from these programmes in 1994.

In Chitungwiza, five per cent of the households involved in the baseline survey reported they had received assistance from welfare institutions during the first six months of 1993. Three households had received food money from the Department of Social Welfare whereas two had received assistance to pay school fees. Ten other households had received other forms of assistance (letters for free medical care, food, blankets). In the 1994 repeat survey, the situation had slightly changed. Five households had received assistance from the Department of Social Welfare (food money, school fees), but only two reported other forms of assistance in the six months prior to the interview.

In Murehwa district, only three households (one per cent) had received assistance from the Department of Social Welfare in the first half of 1994. Thirteen other households (five per cent), all in the South-Eastern part of the district, had received fertiliser and/or seeds.

Household expenditure

In the 1993 baseline survey, 28 per cent of the Chitungwiza households claimed to support financially at least one person staying elsewhere. In the 1994 survey, this had fallen to 22 per cent, but the average number of people supported had gone up from 1.9 persons per household claiming to support others to 2.1. In Murehwa district, 14 per cent of households reported financial support to other people in 1993, compared with ten per cent in 1994. The average number of people supported went down from 1.7 persons per household claiming to support others to 1.5.

The proportion of Chitungwiza households reporting "major" expenditures in the year prior to the survey was 43 per cent in both the 1993 and the 1994 surveys. In Murehwa district, however, it increased significantly from about one quarter of all households in 1993 to almost 40 per cent in 1994 (see Table 11). The types of expenditures that were most frequently mentioned in Chitungwiza in 1994 were: funerals (26 per cent of households reporting "major" expenditures), household furniture or electrical appliances (25 per cent), school fees (21 per cent), building materials (12 per cent) and medical care (eight per cent). In Murehwa district these were: funerals (28 per cent), school fees (22 per cent), building materials (21 per cent), fertiliser (20 per cent) and medical care (six per cent).

Table 11: *Households with "major" expenditures in the year prior to the survey*

	1993	1994	Statistical significance of difference
Chitungwiza	43.1%	42 %	Not significant
Murehwa district	25.8%	38.5%	$p<0.01$

The amounts of money involved in these reported major expenditures ranged from 60 to 22,000 ZWD in Chitungwiza and from 85 to 8,000 ZWD in Murehwa district. The mean amount in Chitungwiza was 1,798 ZWD per expenditure or 2,095 ZWD per household

reporting expenditures, whereas in Murehwa district this was 1,030 dollars per expenditure or 1,170 ZWD per household reporting expenditures. Expenditure on funerals was between 60 and 3,000 ZWD in Chitungwiza, with an average of 1,177 ZWD, and between 85 and 4,000 ZWD in Murehwa district with an average of 840 ZWD. Seven per cent of the Murehwa district households reporting major expenditures in 1994 said they had sold household assets. Others had to borrow money (nine per cent in Chitungwiza and seven per cent in Murehwa district). The majority claimed they had the money at hand or used their savings (89 and 81 per cent in the two respective areas).

Responses to questions in the 1994 repeat survey concerning reduction of household expenditure indicated that the main items for which households had reduced expenditure were clothing, transport and soft drinks (see Table 12). Two-thirds of the Chitungwiza households had reduced expenditure on maize meal, either by buying the cheaper forms or by growing their own maize.

Table 12: *Reduction of household expenditure by item*

	Chitungwiza			Murehwa district		
	Reduction	No reduction [1]	No expenditure	Reduction	No reduction [1]	No expenditure
Clothing	78%	19%	3%	74%	14%	11%
Transport	49%	46%	4%	67%	27%	5%
Soft drinks	64%	13%	23%	47%	9%	44%
Alcoholic drinks	41%	12%	47%	29%	16%	55%
Maize meal	66%	31%	3%	9%	13%	78%
Medical care	24%	61%	15%	27%	58%	14%
Schooling	9%	67%	24%	4%	76%	20%
Housing	7%	90%	3%	1%	3%	96%

[1] Households that did not incur any expenditure are grouped in the category 'no expenditure'.

Reduction of expenditure on medical care was reported by about a quarter of the households in both areas. This was mainly achieved by reducing clinic or hospital attendance, so as to avoid paying clinic fees. Most of those who said they spent less on medical care reported they did not seek treatment unless illnesses were serious, with some saying they would treat minor illnesses at home. Only two house-

holds were spending less on medical care than they used to, because they recently obtained letters for free treatment. One woman claimed she negotiated for cheaper fees at the nearby clinic if she could not afford paying the full rate.

Savings and debts

Ability to save money from earned income increased in both areas between 1993 and 1994, as shown in Table 13.

Table 13: *Households' ability to save money from income*

	1993	1994	Statistical significance of difference
Chitungwiza	28.4%	44.6%	$p<0.001$
Murehwa district	24.3%	40.3%	$p<0.001$

Similarly, households with savings at home or at the bank at the time of interview also increased, as shown in Table 14.

Table 14: *Households with savings at home or at the bank*

	1993	1994	Statistical significance of difference
Chitungwiza	35.8%	52.9%	$p<0.001$
Murehwa district	19.0%	33.1%	$p<0.001$

Participation in funeral societies or local savings clubs in 1994 was reported by over a third of the Chitungwiza households (36 per cent) and by over one fifth of the households in Murehwa district (21 per cent; see Table 15). This was significantly more than the year before, but this could be partly due to under-reporting in 1993, because of the way the question was phrased.

Financial indebtedness among Chitungwiza households significantly decreased from 30 per cent in 1993 to less than 20 per cent in 1994. However, it increased in Murehwa district by about five per cent to around 20 per cent (see Table 16). In Chitungwiza, the mean size of debts decreased between 1993 and 1994 by about 18 per cent, from 1,183 ZWD to 970 ZWD (median values remained the same at 300 dollars). In Murehwa district mean debts did not change much (1,904 and 1,978 ZWD in the two consecutive years; median values 300 and 200 ZWD).

Table 15: *Households participating in funeral societies or local savings clubs*

	1993	1994	Statistical significance of difference
Chitungwiza	(n=327)	(n=281)	
funeral society		26.0%	
savings club	17.7%	22.9%	p<0.001
either of two		36.0%	
Murehwa district	(n=300)	(n=278)	
funeral society		10.4%	
savings club	4.0%	14.0%	p<0.001
either of two		21.2%	

Table 16: *Households with financial debts*

	1993	1994	Statistical significance of difference
Chitungwiza	29.4%	18.6%	p<0.01
Murehwa district	14.3%	19.8%	Not significant

School drop-out

Primary school drop-out and delay in school enrolment were investigated as these are considered sensitive indicators of poor socio-economic status. In the 1993 survey, five per cent of the households in each of the two study areas were found to have at least one child who had stopped going to school. Most of the drop-out had occurred after completion of Grade 7, although in Chitungwiza there was also significant drop-out between Grades 1 and 3 (nine cases out of 23). Inability to pay school fees was the main reason advanced for school drop-out.

In the 1994 survey, school drop-out was again investigated. During the 12 month period since the first interview, there had been seven children who had dropped out from primary school in each of the two study areas, involving four households in Chitungwiza (1.4 per cent) and seven in Murehwa district (2.5 per cent). In all but one case, the main reason was inability to pay school fees. In the 1993 baseline survey, delay in school enrolment involving seven to nine year old children was reported by seven households in Chitungwiza (two per cent of all households) and by two households in Murehwa district (one per cent). The total number of children involved was 11 and two, respectively. Inability to pay school fees was again the main

reason that was given by five Chitungwiza households. Two households in both areas gave other reasons for delaying school enrolment (child unfit to go to school or no birth certificate).

3.6 Health care utilisation and paying status

Usual source of health care

In the 1993 baseline survey, 86 per cent of households in Chitungwiza and 97 per cent in Murehwa district claimed to usually seek their health care from clinics or hospitals (see Table 17). Use of private practitioners was quite popular in Chitungwiza (11 per cent in 1993, 13 per cent in 1994), but almost non-existent in Murehwa district. Two per cent of the households in both areas went to spiritual healers in the case that someone was ill, but in the 1994 repeat survey this was four per cent in Murehwa district.

Table 17: *Usual source of health care*

	1993	1994
Chitungwiza	(n=327)	(n=281)
Clinic or hospital	86%	83%
Private doctor	11%	13%
Church/spiritual healer	2%	2%
Other sources [1]	1%	1%
Murehwa district	(n=300)	(n=278)
Clinic or hospital	97%	96%
Private doctor	1%	0%
Church/spiritual healer	2%	4%

[1] Other sources include army health facilities

Of those in Chitungwiza who usually went to the nearest health facility, the overwhelming majority (98 per cent) went on foot, with a travel time of less than one hour. A few people went to a clinic or hospital other than the nearest facility, because they thought they received better care (two cases), or because waiting times were shorter (two cases) or because they knew someone at the other facility (two cases).

In 1993, only two per cent of households in Chitungwiza usually bypassed their nearest clinic and went to Chitungwiza general hospital or one of the hospitals in Harare. On the other hand, three per cent stated that they had to go to Zengeza clinic for medical care

despite the fact that they were closer to Chitungwiza general hospital.

Of those in Murehwa district who usually went to the nearest health facility, 88 per cent went on foot and ten per cent by bus. Only one third (33 per cent) needed less than one hour to reach the nearest health facility, whilst 30 per cent needed one to two hours, 28 per cent needed two to three hours, and nine per cent claimed they needed more than three hours for a one-way journey to the clinic. For about one third of the households (34 per cent), the nearest health facility was either the district hospital or the mission hospital.

Paying status

The majority of households in both study areas claimed they were paying for health care. Surprisingly, in Murehwa district, more households were paying for health care than in Chitungwiza, as shown in Table 18.

Table 18: *Households' paying status (1994 data)*

	Chitungwiza (n=281)	Murehwa district (n=278)
Always paying	62%	79%
Some members paying	13%	4%
Sometimes paying	1%	1%
Never paying	24%	16%
Total	100%	100%

Those not paying or not always paying for health care, either had medical aid, or received employer-sponsored treatment or held letters which exempted them from paying user fees. Medical aid was the most common form of not paying directly for medical care among Chitungwiza households (17 per cent of all households; see Table 19). Employer-sponsored medical care was the second most common form (ten per cent). In Murehwa district, twelve per cent of the households held valid letters which enabled them to receive free medical care from government health institutions, compared with eight per cent in Chitungwiza. Few households in Murehwa district had medical aid (three per cent) or received free care through an employer (one per cent).

Table 19: *Medical aid, employer sponsored health care and Government sponsored care for households in Chitungwiza and Murehwa district (1994 data)*

	Chitungwiza (n=281)	Murehwa district (n=278)
Having medical aid	17%	3%
Receiving employer sponsored health care	10%	1%
Holding valid letters for free treatment	8%	12%

Almost half of the households that had medical aid had all members of the household covered by the insurance policy (49 per cent), whereas 22 per cent had only one member covered. Among those that received free medical care through an employer, 70 per cent had all household members covered and 18 per cent had only one person (the employee) covered. Of the households that held letters for free treatment, 60 per cent had all members covered, whereas 13 per cent had just one person covered.

Of those who had medical aid, 46 per cent held an insurance cover with CIMAS, 34 per cent with the Public Service Medical Aid Society (PSMAS), five per cent with BP/Shell and 14 per cent with other companies. The Zimbabwe National Army (ZNA) was the employer that was most frequently mentioned as providing free treatment to its employees (48 per cent of all households receiving employer sponsored care).

Exemption from paying user fees

Of those who held letters for free treatment at government health facilities (64 households in the two study areas combined), 83 per cent had received them from the Social Welfare Department. Only a few had obtained their letters from a health facility (nine per cent) or a local councillor (six per cent).

Thirty-nine per cent of the letters had been issued in the five to six months prior to the survey (since January 1994), and about half of the letters (51 per cent) had been issued in the course of 1993, some of which had expired at the time of the survey. The remaining ten per cent had been issued before 1993, and all of these did not have an expiry date.

Seven per cent of the households in both areas had tried to get an exemption letter, but their attempts had been unsuccessful. Of these, 38 per cent had tried this since January 1994 and 79 per cent had tried it with the Social Welfare Department. The reported reasons for failure to get a letter indicate that hardly any of the applicants knew that the criterion which makes one qualify for free treatment is that the monthly family income has to be 400 dollars or less. The most commonly cited reason was that the applicant was found fit enough to work (38 per cent of all applicants). Several answers indicated malfunctioning of the application system: six households, all from Chitungwiza, reported that they were told on several occasions to come back *"until we got fed up"*. Others said they were referred to the local councillor or they did not know the reason why they were not given a letter.

Willingness to pay for health services

In the 1993 baseline survey, about 90 per cent of the interviewees in both Chitungwiza and Murehwa district were of the opinion that health services should be free in rural areas. More than half the people in Chitungwiza (54 per cent) and about a third of those in Murehwa district (35 per cent) thought it was reasonable for hospitals where there is a doctor to charge fees. Payment for drugs was found to be much more accepted than payment for consultations. Many people indicated they preferred paying a flat fee which included the price of drugs, rather than paying for consultation and drugs separately. Separate charges for consultation and treatment used to be common practice in many rural health centres, but since early 1994, this is no longer the case.

3.7 Reported illness and treatment seeking behaviour

Reported illness

The proportion of households reporting illness among their members in the four week period prior to the interviews was significantly less in 1994 compared to 1993 in both areas (see Table 20).

It is not very likely that the decrease in reported illness represents a significant real reduction in illness over the one year period. One of the reasons for the observed difference could possibly be that interviewees were inclined to only report illness for which treatment was

Table 20: *Households reporting illness among their members in 1993 and 1994*

	Households reporting illness among members		Statistical significance of difference
	1993	1994	
Chitungwiza	45.6%	34.5%	$p < 0.01$
Murehwa district	54.0%	35.3%	$p < 0.001$

sought. As shown before (section 3.5), about a quarter of the households in both areas indicated they had reduced expenditure on medical care by refraining from treatment at clinics and hospitals, especially for illnesses considered less serious.

Analysis of the incidence of reported illness episodes among the total population of adults and children (below 18 years of age) belonging to the survey households reveals that the reduction of illness episodes was most significant among children in Murehwa district, followed by children in Chitungwiza and adults in Murehwa district (see Table 21).

Table 21: *Reported illness episodes among total population of adults and children in 1993 and 1994*

	Reported illness episodes		Statistical significance of difference
	1993	1994	
Chitungwiza			
adults	9.0%	8.3%	Not significant
children	8.8%	5.0%	$p < 0.01$
Murehwa district			
adults	12.3%	7.4%	$p < 0.01$
children	10.8%	5.5%	$p < 0.001$

Among Chitungwiza adults, hardly any reduction was observed. This may mean that children, especially those in the rural areas, are most affected in terms of reduced health care by the increase in user fees and general economic hardship.

Table 22 shows the types of self-reported illnesses in the two consecutive surveys for the two study areas. The major changes identified were an increase in the proportion of reported diarrhoea and a decrease in flu/cough/acute respiratory infection in Murehwa dis-

Table 22: *Self-reported illness in 1993 and 1994*

	Chitungwiza		Murehwa district	
	1993 (n=149)	1994 (n=97)	1993 (n=162)	1994 (n=98)
Flu, cough, ARI	12.8%	9.3%	17.3%	8.2%
Diarrhoea	9.4%	8.2%	8.6%	20.4%
Malaria	10.0%	10.3%	6.2%	8.2%
Chronic diseases	10.7%	7.2%	4.3%	7.1%
Pneumonia	2.7%	6.2%	3.1%	5.1%
Childhood diseases	6.0%	4.1%	1.9%	2.0%
STD/pelvic inflammation	2.0%	0.0%	0.0%	0.0%
Pregnancy-related illness	3.4%	2.1%	0.0%	1.0%
Throat/tonsils problems	6.0%	3.1%	5.6%	1.0%
Heart problems (non-chronic)	2.7%	2.1%	0.6%	1.0%
Ear problems	2.7%	1.0%	1.2%	3.1%
Eye problems	0.0%	0.0%	1.9%	0.0%
Tooth problems	2.0%	2.1%	0.0%	1.0%
Scabies	2.0%	1.0%	7.4%	2.0%
Septic wounds/ulcers	1.3%	0.0%	4.3%	0.0%
Abscess	2.0%	3.1%	1.9%	3.1%
Swellings	1.3%	3.1%	1.2%	3.1%
Body rash	1.3%	1.0%	0.6%	0.0%
Injuries/burns/fractures	2.0%	3.1%	3.7%	3.1%
Aches and pains	10.7%	20.6%	17.3%	16.3%
General malaise	1.3%	4.1%	9.3%	5.1%
Other illnesses	7.4%	8.2%	3.7%	9.2%

trict; and an increase in aches and pains in Chitungwiza. It is not possible, though, to conclude whether people were rationing their medical care for specific diseases. No attempt was made to assess seriousness of disease.

Treatment seeking

The proportion of reported illnesses for which no treatment was sought among the Murehwa district residents was more than twice as high as among the Chitungwiza residents (21 to 22 per cent versus eight to ten per cent; see Table 23). Spiritual or traditional healing were considered as forms of treatment. Significant changes in refraining from treatment between 1993 and 1994 were not found in either of the two areas.

Table 23: *Refraining from treatment for reported cases of illness in 1993 and 1994*

	Proportion of reported illnesses for which no treatment was sought		Statistical significance of difference
	1993	1994	
Chitungwiza	10.1% (n=149)	8.2% (n=97)	Not significant
Murehwa district	21.0% (n=162)	22.4% (n=98)	Not significant

Those ill in 1994 and not seeking any treatment (eight cases in Chitungwiza and 22 in Murehwa district), were all usually paying directly for health care, except for one person who had medical aid. Lack of money for treatment was the main reason given for not seeking treatment in both areas (20 out of the total of 30 cases, or 67 per cent). In 1993, 47 per cent gave lack of money as the main reason for not seeking medical care.

First place of treatment

In both study areas, the proportion of patients seeking treatment from the nearest clinic had increased slightly over 12 months (see Table 24), though the differences were not statistically significant. In Chitungwiza, not less than 20 to 22 per cent of patients went to a private doctor. Three-quarters of these were on medical aid, with the remaining one quarter paying for themselves. The proportion of patients resorting to home treatment, drugs from pharmacies or shops, traditional healing or spiritual healing had decreased in Chitungwiza (from a total of 12 per cent to three per cent) but had increased in Murehwa district (from ten to 15 per cent).

Table 24: *First place of treatment in 1993 and 1994*

	Chitungwiza		Murehwa district	
	1993 (n=134)	1994 (n=89)	1993 (n=128)	1994 (n=76)
Nearest clinic	57%	61%	73%	79%
Other clinic/hospital	11%	13%	15%	8%
Private doctor	20%	22%	2%	0%
Home treatment	2%	0%	3%	3%
Drugs from pharmacy/shop	4%	0%	3%	3%
Traditional healer	1%	2%	1%	3%
Spiritual healer	5%	1%	3%	5%

3.8 Cost of medical care

Cost of treatment

Of those who went for treatment to a public health facility in Chitungwiza in 1993, 71 per cent paid for the services received, compared with 62 per cent in 1994 (see Table 25). In Murehwa district, the situation was the reverse: 59 per cent paid a fee in 1993, whilst 68 per cent did so in 1994. This is surprisingly high for a rural area, where the majority of people are expected to qualify for free treatment.

Table 25: *Proportion of paying patients among those who sought treatment from a public health facility in 1993 and 1994*

	Paying patients in 1993	Paying patients in 1994	Statistical significance of difference
Chitungwiza	71.1% (n=90)	62.1% (n=66)	Not significant
Murehwa district	59.1% (n=110)	68.2% (n=66)	Not significant

Those paying for public health services in Chitungwiza in 1994 either paid the adult's consultation fee of 16 dollars or the children's fee of 8 dollars. No separate charges were made for drugs, which is according to government policy. In 1993, when clinic fees in Chitungwiza were 3.60 dollars and 1.50 dollars for adults and children respectively, some people had to pay for drugs separately. Thus, the amounts that were paid at the first place of treatment in 1993 varied between 1.50 dollars and 52 dollars, with an average of 6.20 dollars per paying patient. In 1994, the average amount paid was almost twice that much (12 dollars; see Table 26).

Table 26: *Average cost of treatment at first place of treatment in 1993 and 1994*

	Average cost in 1993	Average cost in 1994	Percentage increase
Chitungwiza	$ 6.20	$ 12.00	94%
Murehwa district	$ 6.67	$ 8.26	24%

Seven patients out of 50 who had paid for initial consultation at a public health facility in 1994 incurred other costs for medical care (ranging from 8 to 145 dollars). Among these, there were five cases where people had been made to pay at Chitungwiza General Hospital, after having already paid a fee at one of the municipal clinics. This is against the rules laid out by the government.

In one of these cases a woman first paid 16 dollars consultation fee at St Mary's clinic. From there she was referred to Chitungwiza General Hospital, where she was made to pay another 26 dollars. There she was given a prescription for medication, which she obtained from a private pharmacy for 54 dollars. By then she had spent already six times the amount she should have paid. When she did not get better she went to a private doctor, who charged her 30 dollars consultation fee and 35 dollars for drugs, bringing the total expense to 161 dollars (or ten times the clinic fee).

Those paying for public health services in Murehwa district in 1994 paid anything between three dollars and 25 dollars, with an average of 8.26 dollars. This represented a 24 per cent increase compared to 1993, when an average amount of 6.67 dollars was reported (see Table 26). Those attending rural health centres in 1994 paid consultation fees of 6.50 dollars for adults or three dollars for children. However, a substantial number went to one of the two hospitals as their first, and in most cases nearest place of treatment. They paid the higher fee of 17 dollars for adults or 8.50 dollars for children. Six patients out of 49 who had paid for initial consultation at a clinic or hospital incurred other costs for medical care: this was mostly for drugs or hospitalisation and the amounts ranged from ten to 307 dollars.

The average cost incurred by non-medical aid patients visiting a private doctor in 1994 (all from Chitungwiza) amounted to 66 dollars, making it four to eight times more expensive than a visit to a municipal clinic. They paid between 20 and 60 dollars consultation fee, and most of them also paid for drugs (between 18 and 64 dollars). None of those who consulted a spiritual healer in 1994 paid any fee. Those who went to a traditional healer (three cases) paid 10, 20 and 30 dollars respectively.

Travel time and cost

Eighty-five per cent of those seeking treatment in Chitungwiza in 1993 reached the first place of treatment in less than one hour. In

Murehwa district, where many people live at greater distances from health facilities, this was only 42 per cent.

In Chitungwiza, 23 per cent incurred costs in reaching the first place of treatment in 1993, while in 1994 this was 21 per cent. In 1993, 60 per cent of them paid less than two dollars for a single trip, but in 1994 this had fallen to about a quarter (26 per cent). In Murehwa, 21 per cent incurred costs in reaching the first place of treatment in 1993, and in 1994 this had risen to 32 per cent. In 1993, 42 per cent paid less than two dollars for a single trip and 35 per cent paid between two and four dollars. In 1994, this was 38 per cent and 25 per cent respectively, indicating increased transport costs.

3.9 Utilisation and cost of maternal health services

In the 1994 repeat survey, 42 deliveries were reported in each of the two study areas. Of these, four cases in Chitungwiza and ten in Murehwa district were home deliveries. Although the numbers are small, comparison with results from the 1993 baseline survey indicates that home deliveries have increased since the late 1980s (see Table 27). Of the 14 home deliveries reported for the period mid-1993

Table 27: *Home deliveries as a proportion of total deliveries by period*

	1988–1991	1992–mid-'93	mid-1993—mid-'94
Chitungwiza	4% (10/259)	4% (3/72)	10% (4/42)
Murehwa district	18% (40/217)	21% (21/100)	24% (10/42)

Data for 1988–91 and 1992–mid-'93 are from the baseline survey conducted in 1993; data for mid-'93–mid-'94 are from the repeat survey in 1994.

to mid-1994, ten were from households who were usually paying directly for their medical care, three were from Apostolic Faith members who refused modern medical care and one was from a household which held a valid letter for free care.

Maternity fees along with other user charges were increased in early 1994. Table 28 shows the fees that were paid by those who delivered at a health facility. By 1994, the women reporting not to have paid any maternity fee had increased from 13 to 32 per cent in Chitungwiza, and from around ten per cent to 17 per cent in Murehwa district. Surprisingly, in the urban area more women were exempt than in the rural area. Those who did pay in Chitungwiza

saw the fees almost double over a period of just one year. The fee increase in Murehwa district was more modest.

Table 28: *Maternity fees paid at health facilities by period*

	1988–1991	1992–mid '93	mid '93–mid '94
Chitungwiza	(n=243)	(n=69)	(n=42)
women not paying	13%	13%	32%
mean fee paid	$ 51	$ 64	$126
mode	$ 15	$ 65	$120
Murehwa district	(n=202)	(n=98)	(n=42)
women not paying	11%	9%	17%
mean fee paid	$ 22	$21	$ 28
mode	$ 7	$ 7	$ 12

3.10 Children's nutritional status

The most important outcome indicator that is being considered in the study is child nutritional status. As shown in section 3.1, analysis of anthropometric data was done in two different ways. Firstly, the 1993 data set was compared with that of 1994. This was done in an unpaired way, as if the samples were two cross-sections, involving all children who met the age criteria (12 to 59 months in 1993 and 12 to 71 months in 1994) and for whom complete and valid measurements were obtained. Secondly, a paired analysis was done involving only those children for whom complete measurements were obtained in each of the two consecutive years.

Unpaired analysis of data on child nutritional status

Table 29 shows the sex and age distribution of children with complete and valid measurements that were included in the unpaired analysis of the 1993 and 1994 data sets for each of the two study areas. It shows that in both areas, the proportion of boys had increased by three to four percentage points.

Table 30 then shows that between 1993 and 1994, the mean height-for-age for children in Chitungwiza had improved significantly ($p=0.05$), with a slight reduction in the proportion of children found stunted (not statistically significant). The mean weight-for-height had slightly deteriorated, but the proportion of children classified as wasted had somewhat decreased (both not statistically significant). It is tentatively concluded that long-term food deficiencies at household level had decreased in Chitungwiza.

Table 29: *Sex and age distribution of children with complete and valid anthropometric measurements (unpaired data)*

	1993		1994	
Chitungwiza	(n=363)		(n=268)	
Girls	179	(49.3%)	121	(45.1%)
Boys	184	(50.7%)	147	(54.9%)
12–23 months	93	(25.6%)	23	(8.6%)
24–35 months	91	(25.1%)	59	(22.0%)
36–47 months	99	(27.3%)	58	(21.6%)
48–59 months	80	(22.0%)	74	(27.6%)
60–71 months	0	(0.0%)	54	(20.1%)
mean age (s.d.)	35.6	±13.5	45.4	±15.0
Murehwa district	(n=360)		(n=296)	
Girls	171	47.5%)	131	(44.3%)
Boys	189	(52.5%)	165	(55.7%)
12–23 months	107	(29.7%)	35	(11.8%)
24–35 months	94	(26.1%)	76	(25.7%)
36–47 months	91	(25.3%)	74	(25.0%)
48–59 months	68	(18.9%)	67	(22.6%)
60–71 months	0	(0.0%)	44	(14.9%)
mean age (s.d.)	33.8	±13.4	42.0	±15.2

Differences in weight-for-height between age categories in Chitungwiza were quite pronounced ($p<0.01$ in 1993; $p=0.07$ in 1994; not reflected in Table 30), with the oldest children worst off, and the one year old children best off. This is an indication that acute food deprivation in the urban area is relatively more prominent among the four to five year old children. For the indicator height-for-age, no statistically significant differences were found between age categories in Chitungwiza.

In Murehwa district, the mean height-for-age had slightly deteriorated between 1993 and 1994 (not statistically significant), whereas the proportion of children found stunted had slightly decreased. A more important change was found with respect to wasting. The mean weight-for-height had very significantly deteriorated ($p<0.001$), and in line with this, the proportion of children classified as wasted had increased from 1.9 to 4.1 per cent (not statistically significant).

Table 30: *Child nutritional status in 1993 and 1994 (unpaired data)* [1]

	1993	1994	Statist. significance of difference
Chitungwiza	(n=363)	(n=268)	
Mean height-for-age Z-score	- 1.009	- 0.809	Better, p=0.05
% Children stunted	19.8%	16.4%	Better, not significant
Mean weight-for-height Z-score	+0.024	- 0.060	Worse, not signific.
% Children wasted	3.0%	2.2%	Better, not significant
Murehwa district	(n=360)	(n=296)	
Mean height-for-age Z-score	- 1.288	- 1.348	Worse, not signific.
% Children stunted	28.9%	26.0%	Better, not significant
Mean weight-for-height Z-score	+0.111	- 0.216	Worse, p<0.001
% Children wasted	1.9%	4.1%	Worse, not signific.

[1] Stunted are those children whose height-for-age is more than two standard deviations below the reference curve; wasted are the ones with weight-for-height more than two standard deviations below the reference.

The height-for-age data for Murehwa district showed significant differences between age categories (p<0.001 both in 1993 and in 1994; not reflected in the table): the younger the children, the more stunted they were. Whereas the mean height-for-age Z-score of one year old children in 1993 and two year old children in 1994 was lower than among any of the older age categories (-1.7), it was even lower (-1.9) among the one year old children in 1994, who were too young to be measured at the time of the baseline survey in 1993. Almost half of the children in the latter category (15 out of 35) were found stunted. This may be a reflection of short stature at birth, due to poor nutritional status of the mother. No statistically significant differences in weight-for-height were found between age categories in Murehwa district.

The two study areas, Chitungwiza and Murehwa district, were also compared with each other (see Table 31). With regard to stunting (in terms of mean height-for-age Z-score), the difference between the two areas which was already significant in 1993 (p<0.01) had further increased in 1994 (p<0.001). With regard to wasting (in terms of mean weight-for-height Z-score), the difference between the two areas was not statistically significant in either of the two years, though it had become larger.

Table 31: *Comparison of Chitungwiza and Murehwa district with respect to child nutritional status in 1993 and 1994, by indicator*

	Chitungwiza versus Murehwa district	
	1993	1994
Height-for-age mean Z-score	- 1.009 versus - 1.288 $p<0.01$	- 0.814 versus - 1.349 $p<0.001$
Weight-for-height mean Z-score	+0.024 versus +0.111 not significant	- 0.057 versus - 0.217 not significant

Paired analysis of data on child nutritional status

As indicated already in section 3.1, about 60 per cent of children involved in the 1993 baseline survey in Chitungwiza, and 66 per cent of those in Murehwa district had height and weight repeat measurements taken in 1994 (see Table 4). Loss of follow-up was not related to nutritional status at the time of the 1993 baseline survey. The children with repeat measurements were included in a paired analysis, whereby each child's measurements in the two consecutive years were considered as pairs. Table 32 shows the sex and age distribution of the children included in this paired analysis.

For each child included in the paired analysis, the difference between the 1994 Z-score and that of 1993 was calculated for both anthropometric indices (height-for-age and weight-for height). Table 33 shows that all indicators had changed significantly between 1993 and 1994. Height-for-age had increased in both areas, whereas

Table 32: *Sex and age distribution of children with complete and valid anthropometric measurements involved in paired analysis of 1993 and 1994 data*

Sex and age [1]	Chitungwiza (n=219)		Murehwa district (n=238)	
Girls	99	(45.2%)	109	(45.8%)
Boys	120	(54.8%)	129	(54.2%)
12–23 months	55	(25.1%)	70	(29.4%)
24–35 months	54	(24.7%)	67	(28.2%)
36–47 months	67	(30.6%)	61	(25.6%)
48–59 months	43	(19.6%)	40	(16.8%)
mean age (s.d.)	35.2	±13.0	33.1	±13.1

[1] Ages are as calculated for the 1993 baseline survey

weight-for-height had deteriorated in both areas. This means that, on the average, children have caught up with their growth, but gains in weight have lagged behind gains in height.

Table 33: *Change in nutritional status between 1993 and 1994 in Chitungwiza and Murehwa district, by indicator and by age category (paired data)*

	Mean change in Z-scores between 1993 and 1994	
	Height-for-age	Weight-for-height
Chitungwiza (n=219)		
by age categories:	+0.364 (p<0.0001)	- 0.198 (p<0.01)
12–23 months [1]	+0.436	- 0.271
24–35 months	+0.370	- 0.069
36–47 months	+0.291	- 0.210
48–59 months	+0.405	- 0.249
Murehwa district (n=238)		
by age categories:	+0.153 (p<0.05)	- 0.316(p<0.0001)
12–23 months	+0.226	- 0.299
24–35 months	- 0.093	- 0.310
36–47 months	+0.138	- 0.334
48–59 months	+0.480	- 0.328

[1] Ages are as calculated for the 1993 baseline survey

Disaggregation of the data to age categories shows that the changes occurred in almost all age categories. The changes were least prominent among those who were two years old (24 to 35 months) at the time of measurement in 1993.

Figures 1 to 4 show the distribution of change in Z-scores between 1993 and 1994 for the two indicators under consideration in the two study areas:

Analysis of variance of the change in individual Z-scores between 1993 and 1994 showed few correlations with demographic and socio-economic household indicators. The only statistically significant changes in nutritional status were with regard to the following:

* neighbourhood in Chitungwiza ($p<0.05$ for both height-for-age and weight-for- height)
* neighbourhood in Murehwa district as far as change in height-for-age was concerned ($p=0.05$).

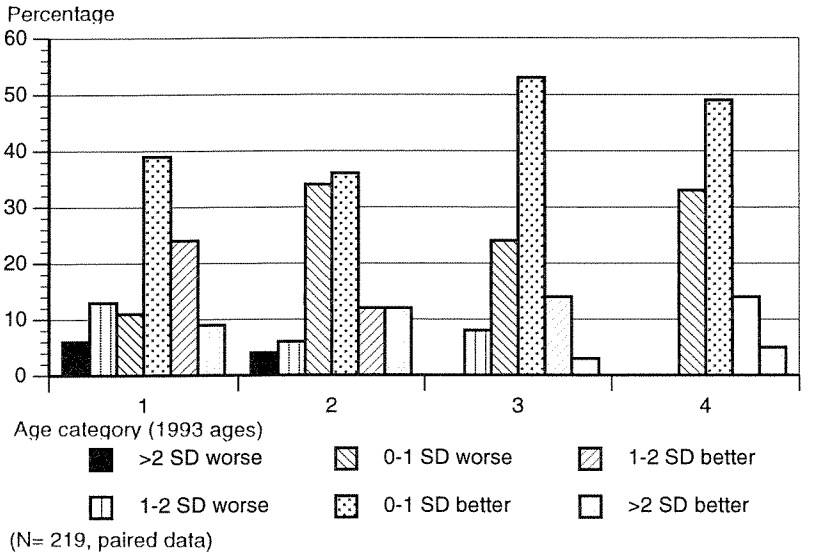


Figure 1: *Mean change in height-for-age Z-score between 1993 and 1994 in Chitungwiza, by age category*

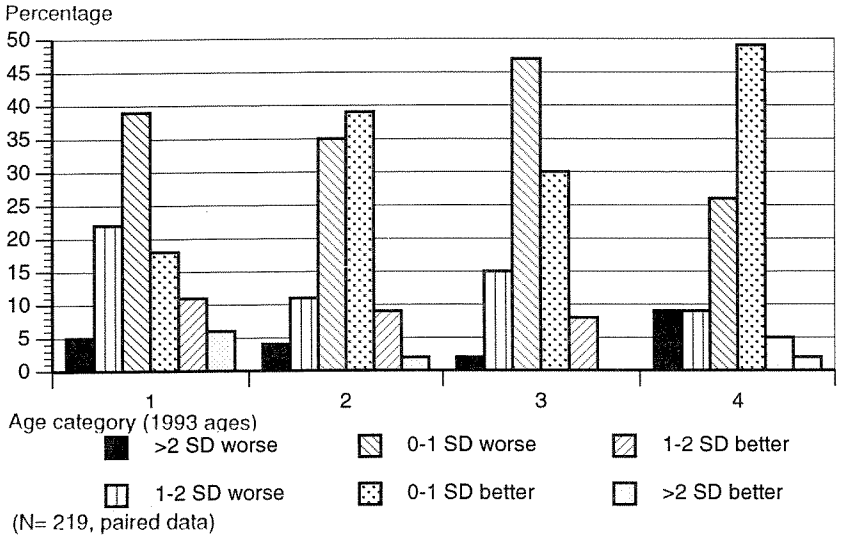


Figure 2: *Mean change in weight-for-height Z-score in Chitungwiza*

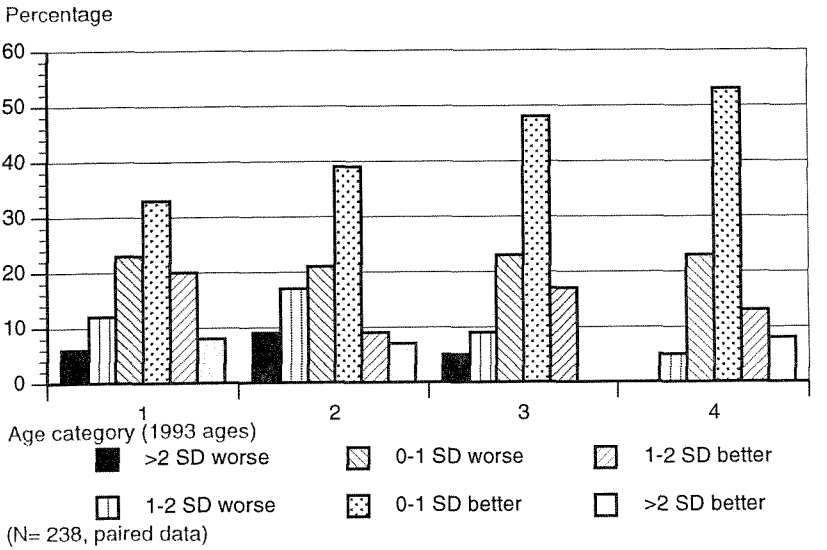


Figure 3: *Mean change in height-for-age Z-score in Murehwa district*

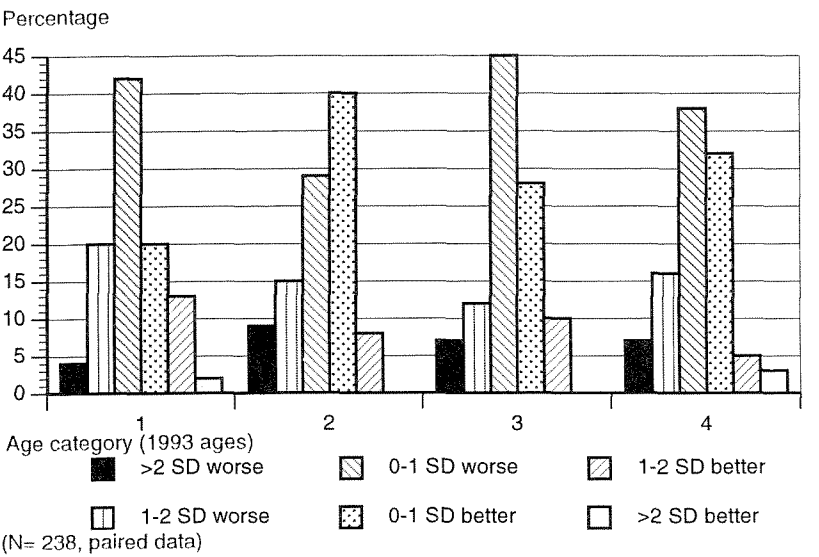


Figure 4: *Mean change in weight-for-height Z-score in Murehwa district*

No significant differences were found with respect to change in height-for-age and weight-for-height for the following household characteristics:

* household size
* child to adult ratio
* house ownership
* change of residence (between 1993 and 1994)
* ratio of dependants to income earners
* employment status
* self-sufficiency in maize
* ability to save from income.

There was some indication that Murehwa district households not reporting any major household expenditures in 1994 showed less deterioration in children's weight-for-height ($p=0.05$). On the other hand, Chitungwiza households reporting major expenditures on funerals showed a much larger deterioration in childrens' weight-for-height than those reporting other types of expenditure ($p<0.01$). This may be AIDS related.

4. Discussion and conclusions

4.1 Important developments during the period 1993–94

The most important socio-economic developments in Zimbabwe during the immediate post-independence period (1980–82), the stabilisation period (1982–90) and the early ESAP period (1990–92) have been described in the introductory chapter of this report. For a fair discussion and interpretation of the results described in the previous chapter, it is necessary to briefly describe some of the important changes that took place in Zimbabwe during the intermediate phase of adjustment (1993–94), when the present study was conducted.

Economic and social indicators

While Zimbabwe's real GDP officially fell by 7.7 per cent in 1992, a very modest economic recovery seems to have occurred in 1993, when GDP officially rose by 1.7 per cent. In per capita terms, however, this still represented a small negative growth (from ZWD 413 to ZWD 411). At the time this report was written in 1995, the GDP data for 1994 were not yet available, but the government was expecting a two per cent increase in real GDP per capita. The recovery in 1993 was almost entirely based in agriculture, mainly in maize and tobacco (Gibbon, 1995). Performance in other sectors gave a less bright picture. The index of manufacturing output, for example, which had started to fall between 1991 and 1992, declined further in 1993 to a level slightly above that of 1987. State debt increased from USD 2.6 billion in 1990 (or 45 per cent of GDP), to USD 4 billion (or 86 per cent of GDP) in 1994 (Gibbon, 1995).

Developments in the textile and clothing industries under the ESAP have been described extensively by Sachikonye (1995). Initially, these sectors were believed to have greater potential for expansion and improved export performance than most other industries. Before trade liberalisation, the textile and clothing industries were performing reasonably well, in spite of difficult access to foreign exchange and imported inputs. In 1991–92, the major companies undertook large capital investment programmes to modernise their plants. Among these companies was Cone Textiles

in Chitungwiza, which was owned by Lonrho, a multinational company. Cone Textiles incurred loans amounting to ZWD 300 million for investment in new equipment (Sachikonye, 1995).

In 1992 and 1993, the textile and clothing industries landed in a deep crisis, which was attributed to three inter-related problems: a liquidity crisis stemming from the new monetary measures introduced by the government; the domestic recession, which led to declines in real incomes and reduced purchasing power mainly in urban areas; and the drought, which affected domestic cotton production and depressed household incomes, mainly in the rural areas. Cone Textiles declared no profits for 1992, and retrenched 1600 workers in October 1992. In December 1994, the company closed down, bringing the total number of workers left jobless to six thousand. In June 1995, discussions about a possible take-over of Cone Textiles and re-employment of some of its former workers by the Industrial Development Corporation were still on-going. Meanwhile, the former employees had not yet received the termination benefits (ZWD 400) to which they were entitled under the Insolvency Act.

Table 34 clearly shows that the inflation rate was highest in 1992. The rates for 1993 and 1994, although lower than for 1992, are still much higher than the average of 13 per cent per annum recorded over the 1980–90 period. Since 1991, the Consumer Price Index has risen steadily by about 50 points per annum. The index for food recorded an even steeper increase, whilst that for medical care saw its major increase in early 1994. The latter is mainly attributed to the dramatic fee increases for health services at clinics and hospitals in January of that year (discussed below).

Table 34: *Price indicators for Zimbabwe (CSO, 1995b)*

	1990	1991	1992	1993	1994
Inflation rate	15.5%	23.3%	42.1%	27.6%	22.3%
Consumer Price Index (CPI) (1990=100)	100.0	123.3	175.2	223.6	273.4
Food CPI	100.0	112.6	192.7	267.4	336.8
Medical care CPI	100.0	116.3	144.4	169.3	415.9

The Sentinel Surveillance for SDA Monitoring (GOZ, 1994c) found that between March and December 1993, there was a dramatic shift in maize meal consumption by Zimbabwean households. The proportion of households consuming roller meal, which is milled by large-scale commercial millers, fell from 75 per cent to less than a

quarter. Over the same period, there was a corresponding increase in the consumption of straight-run maize meal, which is hammer-milled by small-scale millers, from 33 per cent to 71 per cent. This shift was attributed to the removal of subsidies on roller meal in May 1993 and the immediate 40 per cent increase in roller meal prices.

Changes in the health sector

After the significant fall in government real per capita recurrent expenditure for health between the financial year 1990–91 and 1992–93 (see Chapter 1), spending on health in 1993–94 rose by almost six per cent compared to the previous year. It is important to note, though, that this happened because the Ministry of Health and Child Welfare (MOHCW) overspent its original budgetary allocation by 13 per cent (Chisvo and Munro, 1994). The 1994–95 budgetary allocation to the MOHCW was about two per cent smaller in nominal terms than the actual 1993–94 expenditure.

In the past few years, several politicians and top health policy makers have confirmed the precarious financial position of the MOHCW, as well as the difficulty to attract and retain qualified staff—doctors, nurses, pharmacists—the unsatisfactory situation regarding availability of drugs and medical equipment, poor maintenance of buildings, and the general decline in the quality of health services.

An earlier study, that was done as part of the current research project, examined the changing attitudes among both professional nurses and community women towards the quality of health care and nurse professionalism (Bijlmakers *et al.*, 1995). The study showed that nurses and community women, from both urban and rural areas, shared much of their assessment of the state of health services, especially with regard to their dissatisfaction with the lack of resources, or the "structure of care". There was, however, a striking divergence of perspectives regarding the "process of care", especially the nurse-patient interaction. Community women found that nurses' attitudes towards clients followed a consistent pattern of indifference and sometimes patient neglect or even abuse. The strongest sentiments were voiced in the urban areas. While nurses acknowledged that they might be irritable and rushed with patients, they failed to identify the erosion of the nurse-patient relationship as a major patient complaint. The study concludes that the conflict between nurses and community members seems to have sharpened as nurses'

conditions of service deteriorated and their social standing was increasingly threatened by economic hardship.

The user fee policy in the early 1990s has been described in the introductory chapter of this report. After an enforcement of the system in 1991, the income threshold for free health care was raised from 150 to 400 dollars in November 1992. Because of the drought, government health facilities in rural areas were instructed not to charge fees between January and June 1993. Then, in January 1994, the system of user fees for health services was revised dramatically, with substantial increases in charges for all services. These new guidelines were intended to rationalise user charges across institutions, as well as increase cost recovery. The MOHCW had recognised the large variation of fee levels between the health institutions belonging to the ministry itself, local governments (rural district councils and municipalities), and missions. All fees were therefore standardised. In an attempt to discourage patients from by-passing the lower levels of care, which were often under-utilised, the fee levels were increased according to the level of the health facility. This had not been the case previously. The fees at provincial and district hospitals experienced the largest increases in relative terms. Thus, a reduction in the high patient-load at these hospitals was anticipated.

To illustrate some features of the fee schedule introduced in January 1994, Table 35 shows some of the old and the new fees at various health institutions. It should be noted that, prior to 1994, many health institutions, especially those falling under local authorities and missions, charged separate fees for drugs. From January 1994 onwards, the cost of drugs was included in the fees. But even if this is taken into account, it is evident that most of the increases were dramatic. Many people expressed concern with the impact this may have on clinic attendance in both rural and urban areas. The correlation between changes in user fee policies and clinic attendance levels in Chitungwiza and Murehwa district since 1991 has been an area of research of the current research project. Preliminary analysis has shown that such a correlation exists. The final results of the analysis, with data stretching from 1991 to mid-1995 will be available towards the end of 1995.

The Poverty Alleviation Action Plan

The Social Development Fund (SDF), announced in 1991, was intended to work as a safety net to protect the vulnerable from the

Table 35: *Selected health service user fees before and after January 1994 (in ZWD)*

	Old fee	New fee [1]
Outpatients consultation fees		
at provincial hospitals	$ 3	$ 26
at district hospitals	$1.50	$ 17
at Harare municipal clinics	$ 10	$ 20
at Chitungwiza municipal clinics	$3.60	$ 16
at rural hospitals and RHCs	$1.50 to $ 3	$ 6.50
Booking for delivery		
at provincial hospitals	varied	$ 80
at district hospitals	varied	$ 60
at Harare municipal clinics	$ 120	$ 120
at Chitungwiza municipal clinics	$ 65	$ 120
at rural hospitals and RHCs	varied	$ 10
Ward fees (per day)		
at district hospitals	$ 10	$ 50
at rural hospitals and RHCs	$4	$ 10

[1] All outpatient consultation fees are for adults. The new fee schedule stipulates that children up to 12 years of age pay half the amount of the adults' fee.

adverse effects of structural adjustment. From the onset, however, implementation of the SDF measures was hampered by the grossly inadequate initial funding. Total government expenditure for the SDF as of end of July 1994 stood at ZWD 88.7 million (GOZ, 1994b). Of this, the Social Welfare Programme absorbed 52.3 ZWD million, which mostly went to assistance for school and examination fees. Only ZWD 1.5 million was reported to have gone to assistance for health fees and ZWD 0.7 million to food money in urban areas. The government recognised that the impact of the social safety net was minimal, especially in non-urban areas. Some of the problems identified were cumbersome application procedures for assistance, over-centralisation in the processing of payments and unclear division of responsibilities between the departments involved in SDF (GOZ, 1993a).

In the course of 1993, two years after the start of the ESAP, Government started to recognise the need for reforming the SDF. A new *Poverty Alleviation Action Plan (PAAP)* was designed, which tried to address the problems encountered with the SDF. The plan consisted

of a first phase of eight months in which the institutional capacity required for the SDF to fulfil its objectives would be established, and a second phase, with a three-year time-frame, for implementation of projects and programmes aimed at reducing poverty and unemployment (GOZ, 1993a).

The PAAP was approved by the Cabinet in October 1993, and it was then presented to donors at the December 1993 Consultative Group meetings in Paris. Most donors represented at the meeting were of the opinion that the plan did not specify clearly enough how it would be implemented. PAAP was then launched again in January 1995, this time with an implementation plan. The total financial requirement was estimated at USD 150 million (about ZWD 1.2 billion), of which almost a third (USD 49 million) was for the targeted Social Safety Nets Programme. This programme is based on the old Social Welfare Programme, with its three elements (education fees, health fees and food money), but it promises to streamline, decentralise and simplify the operational systems. Criteria for access to the programme will be reviewed in line with the results of a poverty assessment study, which will not be completed until late 1995. By then, the ESAP will be almost five years old.

4.2 Discussion of main findings

The findings that are presented in Chapter 3 can be summarised according to three main areas of interest: changes in household economy, changes in health and health-seeking behaviour, and changes in health outcomes as evidenced by changes in child nutritional status.

Changes in household economy

It was found that household income sources had been diversified since 1991 in Chitungwiza and since 1993 in Murehwa district. This was done primarily by taking on a wider range of informal activities. Growing maize had significantly become more popular in Chitungwiza, where the new food growers were found to produce mainly for their own consumption. The pattern of household expenditure in both rural and urban settings had also changed, with funerals accounting for an increasing proportion of expenditure and a corresponding reported decline in expenditure on clothing, use of transport and consumption of food.

With regard to food consumption, a decline was found in both the quality and quantity of food. Spells of food shortages within the household in Chitungwiza appeared to be more common and of a longer duration than in Murehwa district. About three-quarters of households in both areas reported they no longer bought certain food items because of expense. Particularly meat, bread, rice and cooking oil had become luxury items. Remarkable, if not alarming, was the high proportion of urban households which had reduced the amount of *sadza* (the main staple food) that they ate: 31 percent. This contradicts the finding of the afore-mentioned report of the Sentinel Surveillance for SDA monitoring (GOZ, 1994c), which detected the significant shift in maize meal consumption away from roller meal to straight-run meal, but found that total maize consumption between March and December 1993 had remained unchanged. Three other Zimbabwean studies, though, confirmed the deterioration in the food basket of households, both in terms of quality and quantity (Brand *et al.*, 1995; Sachikonye, 1995; Kanji and Jazdowska, 1993).

A surprising finding was a reported increase in savings in many households between 1993 and 1994. It is doubtful whether this should be seen as a sign of an improving socio-economic climate. It could also be an indication that people are becoming apprehensive of the future. In Phase II of the project, the issue of savings will be further explored: What are people saving for? How much money is being set aside? Are people reducing expenditure in order to be able to save? If so, what type of expenditure is being reduced?

While significant proportions of households in Murehwa district benefited from food aid in 1993 through the Child Supplementary Feeding Programme and the Food-for-Work Programme, this was no longer the case in 1994 as these programmes were stopped in between the two surveys. Very few households reported having received assistance from social welfare organisations: five per cent in Chitungwiza and only one per cent in Murehwa district. Brand *et al.* (1995) found that less than one per cent of women informal traders in Mbare suburb in Harare received food money, whilst 6.8 per cent received assistance with school fees. Among 57 retrenched workers interviewed by Sachikonye (1995) none had received assistance of any kind from SDF. The fourth round of the Sentinel Surveillance for SDA monitoring, which was conducted in December 1993 (GOZ, 1994c), found that, in Zimbabwe as a whole, 24 per cent of the respondents had been exempt from paying health fees. It was not established when, for how long or on how many occasions, they had been exempt. Only between one and five per cent had been assured

of assistance with school fees, examination fees, food money (in urban areas only) or employment/training opportunities.

The number of households in need of assistance is difficult to estimate. A vulnerability assessment study conducted by USAID (1994) suggested that in Murewha district, 12.3 per cent of the population was eligible for food relief during the period 1982–91. This figure should be much higher after the 1991-92 drought and the start of the ESAP.

Gibbon (1995) argues that, in general, Social Adjustment Programmes in Africa suffer from an insubstantial conceptual basis, and that the genuinely poor are hardly reached. It is clear that, four years into the ESAP era in Zimbabwe, the "targeted assistance" is still very far from finding its target. There is little hope that the new Poverty Alleviation Action Programme, which was designed on the same basis as the SDF, will have a significant impact on the living conditions of those hardest hit by the economic decline, as the proposed measures hardly involve any structural changes that may improve the plight of the poor. Even the World Bank, in a review of 12 social action programmes and social funds in Africa (Marc *et al.*, 1993), acknowledges that targeting and monitoring of interventions is one of the weakest aspects in the design of such programmes. Costello *et al.* (1994) state that, although social action programmes and social funds can be beneficial, they cannot by any means be seen as an adequate response to the social impact of adjustment. It is clear that one of the main concerns for poverty alleviation requires that reform programmes should be equitable and give priority to measures that improve the access of the poor to productive assets and income-generating activities.

Changes in health and health seeking behaviour

Between 1993 and 1994, a significant decrease in reported illness was found in both study areas, but it is not very likely that this represents a real reduction in illness. There is some indication that it is at least partly due to some people not reporting illness for which no treatment was sought, which, in turn, may be attributed to the higher health fees in 1994 compared to those in 1993. About a quarter of the households in both areas indicated they had reduced clinic or hospital attendance, mostly for minor illnesses, so as to avoid paying fees. The reduction of illness episodes was most significant among children, especially in Murehwa district, which may mean that children in rural areas are most affected in terms of reduced health care by the

January 1994 increase in user fees and the general economic hardship.

Most of the households in both study areas stated they were paying for health care. A minority of 12 per cent in Murehwa district and eight per cent in Chitungwiza held valid letters which enabled them to receive free treatment. The government has not (yet) indicated how many people or households are estimated to fall below the income threshold of ZWD 400 per month and hence qualify for free treatment. An estimate of 20 per cent for urban areas and 50 per cent for rural areas seems to be on the conservative side, which would mean that in the two study areas, the health part of the social safety net programme remains far from reaching its target.

In both study areas, the proportion of patients seeking treatment from the nearest clinic, rather than from an institution further away, had increased slightly over 12 months. This may be an indication that the government's attempt to strengthen the use of primary care centres and take some of the patient load off the referral hospitals, which was one of the main arguments when the structure of health fees was revised in January 1994, is successful. It does not necessarily mean, though, that patients are getting better services.

Whereas the proportion of patients paying for treatment at a public health facility in Chitungwiza decreased between 1993 and 1994, it increased in Murehwa district, indicating stricter collection of fees or less accessible exemption in the rural area. The average amount paid almost doubled in Chitungwiza over the 12 months period, whilst in Murehwa district a smaller increase was noted. This is fully attributed to the fee increases that were instituted in January 1994. Similarly, mothers who had given birth and paid a hospital maternity fee paid significantly more in 1994 than in 1993, although the proportion of women not paying any maternity fee had also increased. With regard to utilisation of delivery services at health institutions it was established that the proportion of home deliveries had increased since the late 1980s. Although not statistically significant because of the small numbers involved, the trend is worrying as it may ultimately have a negative impact on morbidity and mortality among mothers and children.

Changes in nutritional status of under-five year old children

With respect to nutritional status of under-five year old children, which was chosen as an indicator of health outcome, some highly significant changes were found over the 12 month period. On the one

hand, the prevalence of stunted growth, which reflects long-term adverse influences, had significantly declined between 1993 and 1994. On the other hand, the prevalence of wasting, or excessive thinness, which reflects more recent negative effects, had significantly increased. This is an important finding, which is difficult to interpret without verification over the longer-term. It is possible that the 1991–92 drought is responsible for the high levels of stunting in 1993, from which children seemed to have partially recovered in 1994. The increase in wasting can only be attributed to short-term effects. Seasonality is not a possible explanatory factor, as the height and weight measurements in the two consecutive years were taken during the same season (May in Chitungwiza, June in Murehwa district). It is also not very likely that the observed increase in wasting is AIDS related, as the changes occurred in all age categories. It is tentatively suggested that failure to cope with adverse socio-economic conditions is a factor that may explain the higher levels of wasting.

While the levels of malnutrition were higher in Murehwa district than in Chitungwiza, the difference between the two areas had become larger over the 12 months period (especially for stunting). This may be an indication that, on average, households in the rural area found it harder to cope with the changing socio-economic environment than those in the urban area. Follow-up of the same children over a longer term—which is being done in Phase II of the research—is important to verify some of the observed trends.

4.3 Conclusions and policy implications

The issue of the social impact of structural adjustment has attracted a lot of attention since the mid-1980s, notably after the publication of the much-cited work, *Adjustment with a Human Face* by Cornia *et al.* (1987). Some claim that there is still little evidence of the existence of any general rule with respect to "winners" and "losers" in the adjustment process (for example, Azam, 1994). Others are more outspoken, not least the World Bank itself, the most powerful advocate of structural adjustment.

The 1994 World Bank policy research report *Adjustment in Africa—Reforms, results and the road ahead* investigated 29 countries in sub-Saharan Africa that were undergoing structural adjustment some time between 1987 and 1991 (World Bank, 1994). The report asserts that (page 7):

> In African countries that have undertaken some reforms and achieved some increase in growth, the majority of the poor are probably better off and almost certainly no worse off. The poor are mostly rural (sic!), and as producers, they tend to benefit from agricultural, trade and exchange rate reforms and from the demonopolization of important commercial activities. As consumers, both the urban and the rural poor tend to be hurt by rising food prices. But adjustment measures have seldom had a major impact on food prices in either the open market or the parallel market, which supplies most of the poor.

This view is clearly much too optimistic, and it is not supported at all by the findings of the current research, neither by work done by others.

In a very comprehensive, and probably the best review so far of studies on the impact of structural adjustment on the health of mothers and children, Costello *et al.* (1994), in their report *Human Face or Human Facade*, convincingly conclude that:

> .... there is indicative evidence that adjustment has had a negative effect on welfare ...

and

> ... at the same time there is little evidence for the proposition that adjustment promotes sustainable economic growth (at least in low-income countries), which is central to the view that the social costs of adjustment are temporary and off-set by long-term benefits.

The authors find it:

> ... equally questionable that 'safety net' programmes have had more than a marginal effect in limiting the impact (of adjustment).

They state that very few studies have attempted to document the changes undergone by households in sub-Saharan Africa over any length of time during structural adjustment periods. This is because, on the one hand, it is difficult to measure the social impact of structural adjustment, and on the other hand, the possibilities to do research were limited as few countries had not yet implemented structural adjustment programmes when social change became a topic of interest. With regard to the latter, Zimbabwe was an exception and therefore it offered the almost ideal setting to study the social and health dimensions of change at the household level.

The changes that are documented in this paper concern the period when Zimbabwe went through its early phases of economic

structural adjustment (1993–94). It has been a deliberate choice not to quantify poverty, or determine levels of "absolute" poverty, as these concepts are arbitrary, both scientifically and politically. There is strong evidence, though, that there has been a serious economic degradation of the poor in both urban and rural areas in Zimbabwe, and there is no sign that this process has come to a halt. It has also been demonstrated that very few households receive assistance from the SDF.

It is unfortunate, though foreseen, that the delayed effects of the severe drought of 1991–92 cannot be separated from the effects of structural adjustment. Also the impact of HIV/AIDS cannot be singled out. Official estimates as of late 1992 were that of a population of 10.4 million, about 800,000 Zimbabweans were HIV-positive, but unofficially the figure was estimated to be close to a million. Sero-prevalence estimates among sexually active people ranged from 25 to 30 per cent in urban and certain rural areas that were close to transport arteries, mines or military bases, and from 10 to 15 per cent in the more remote rural areas (UNICEF, 1994). It is clear that this has a bearing on household economies, as HIV/AIDS can reduce household incomes and at the same time bring about additional expenditure.

The question can be raised to what extent the findings presented here would apply to Zimbabwe as a whole. Chitungwiza, with its large commuter work force and high level of informal economic activities, is considered not very different from some of the "high-density" suburbs of Zimbabwe's major cities. Murehwa district, however, cannot be seen as a typical district, as it has mainly communal lands with relatively good farming conditions and a reasonable rainfall. It is further characterised by a high proportion of families who receive remittances from their employed fathers, children or other relatives. However, the advantage of having chosen Murehwa district for this research project is that drought is less a confounding factor than it would have been in most other districts. Changes in household economy, health and nutritional status are, therefore, more easily attributable to structural adjustment.

One of the limitations of this report is that it covers a relatively short period. Through follow-up of the same households in 1995—which has been successfully completed—and possibly in 1996, it is expected, though, that more insight will be gained into the effects of drought and adverse socio-economic conditions at the household level. The results of three years of follow-up will be published in the course of 1996. The aim is then to establish whether the households

that were found to have difficulties in coping with the adverse socio-economic conditions during 1993–94 will see a further deterioration in their living conditions in 1995 and 1996, or whether they are able to make up some of their arrears.

Policy issues

So far, there are two main policy issues that emerge from the research. Firstly, the government and the international aid organisations appear to be unable to adequately protect the poor from the adverse effects of economic decline. There is not much hope that the PAAP will perform better in this respect than its predecessor, the SDF. It has been argued by others (for example, Townsend, 1994) that diverging living standards, deepening poverty and growing social instability are not just long-term historical processes, but they are rather being created by institutional, particularly market, forces that have become marked features of the world in the past decade. In order to be able to effectively reverse these trends, one has to trace, measure and understand them, preferably through rigorous research on the effects of economic policies, including "safety net" programmes, at the household level. This is what the current research is trying to achieve.

The second issue that comes out clearly is that the government's failure to protect the health sector from budgetary cut-backs and to guarantee high quality and affordable services at the primary level of care since ESAP was introduced in 1991, appears to have a negative impact on households' welfare. It is therefore suggested that more resources be made available for primary health care facilities, and that no fees be charged for the services provided at this level, so as to make them accessible to all. The system of exempting those who are below a certain income level has proven to be cumbersome and ineffective. The government's decision to abolish health fees at rural health centres and most rural hospitals with effect from 1st March 1995 is to be recommended. But it would also be good to provide services free of charge in poor urban areas, such as Chitungwiza and the "high-density" suburbs of major cities. Furthermore, the government needs to put in place a mechanism to compensate missions and local authorities who own health facilities (i.e. the clinics owned by Town Councils and those owned by the Rural District Councils) for the loss of income, if fees at the primary level of care are abolished.

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Appendix

List of sample clusters in Chitungwiza and Murehwa district

List of 10 wards (with corresponding town units) selected out of the total of 24 town wards in Chitungwiza:

Wards 3, 4 and 5	together forming part of St Mary's
Wards 7 and 8	together forming Zengeza 1
Ward 13	part of Zengeza 4
Ward 17	Unit K
Ward 18	Unit L
Ward 20	Units B, H and E
Ward 24	Unit M

List of 20 primary schools selected out of the total of 63 in Murehwa district:

Chamapango
Chemhondoro
Chikupo
Chinhenga
Chitowa III
Dombodzvuku
Gumbanjera
Hokodzi
Kambarami
Magaya
Maponongwe
Mhembere
Murehwa Central
Mutowani
Nyamutumbu
Rota
Shamu
St Paul's Central
Zengenene
Zorizozo

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