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SINTEF REPORT

TITLE

Living conditions among people with activity limitations in Zimbabwe.
A representative regional survey.

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This research report provides results from a study on living conditions among people with and without activity limitations in Matabeleland, Manicaland and Midlands, Zimbabwe. The study began in 2001 and was completed in 2003.

	ENGLISH	NORWEGIAN
GROUP 1	National study	
GROUP 2	Living condtions	
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Preface

There are numerous reasons for carrying out studies on living conditions among people with disabilities[1] in Southern Africa. Firstly, since 1990 the United Nations has called for the collection of quality data. Secondly, to the extent that National Disability Policies have been developed in Southern Africa, specific formulations on the need for data on living conditions among people with disabilities are found in the National Disability Policies of Namibia (MLRR, 1997), South Africa (ODP, 1997), Malawi (draft) (OMSPWD, 2001), and others. Thirdly, and most importantly, we, who have carried out this work, strongly believe that studies like this, in combination with other efforts, have a strong potential for contributing to an improvement of the living situation for people with disabilities, as they have in many high-income countries. Lastly, the researchers behind this report are driven by an interest for the conceptual development in the disability field and see this research as a unique possibility for applying and studying certain elements of the theoretical model behind the recently adopted International Classification of Functioning, Disability and Health (ICF).

[1] Disability and activity limitations are applied in the text. See 3.1.)

The initiative to carry out this study in Zimbabwe (and the parallel one in Namibia) was developed as a collaboration between the Southern Africa Federation of Disabled People (SAFOD), the Norwegian Federation of Organisations of Disabled People (FFO), and SINTEF Unimed. A number of organisations of disabled people, and several ministries have been involved in the research process. At the University of Zimbabwe Medical School, the Departments of Psychiatry and Rehabilitation have been responsible for carrying out all aspects of data collection and have had a co-ordinating role throughout the entire project. SAFOD has handled project finances in a highly professional manner. The National Council of Disabled Persons of Zimbabwe (NCDPZ) and other organisations of disabled people, have provided valuable support during the data collection, taken part in development of research design and recruited enumerators and supervisors. Valuable support has also been provided by the African Rehabilitation Institute[2]. SINTEF Unimed has maintained overall responsibility for the study, and funding has been provided through the Norwegian Agency for Development Co-operation (NORAD) and the Atlas Alliance in Norway.

A Reference Group for the study comprised of the following:

- Dr. Sekai Nhiwatiwa, University of Zimbabwe, Medical School, Department of Psychiatry

[2] The African Rehabilitation Institute (ARI) is the specialized agency of OAU member States relating to disability, based in Harare, Zimbabwe.

- Ms. Jennifer Muderedzi, University of Zimbabwe, Department of Rehabilitation
- Mr. Alexander Phiri, SAFOD, Secretary General
- Mr. Crispen Manyuke, National Council of Disabled People in Zimbabwe (NCDPZ), Executive Director
- Mrs. W. M. Jokonya/Mr. Papa Fall, African Rehabilitation Institute
- Mrs. Sheila Chidyausiku, Director, Ministry of Health
- Mr. Reggies Mamina, Central Statistical Office
- Mr. A. Vere, Central Statistical Office
- Mrs. E. Matare, Zimbabwe National Association of Mental Health (ZIMNAHM)
- Ms. Flora Shiringo, National Association of Societies for the Care of the Handicapped (NASCOH)
- Mrs. Hilda Chakadini, Ministry of Labour, Department of Social Welfare

At the time of publishing this report, an important milestone in this research initiative has been accomplished. The Namibian study of Living Conditions among People with Disabilities was published earlier this year (Eide, van Rooy & Loeb, 2003). Together these two studies are among the very first representative studies of living conditions among people with disabilities to be carried out in Africa. Results from a corresponding study that was started in Malawi late 2002 can be

expected in mid 2004. Further studies in the SADCC region may follow after this.

Parallel to these studies, capacity building programmes for the organisations of disabled people have been developed and carried out. An important next initiative will be to establish a programme with the aim of ensuring that the results from these studies are applied to the benefit of people with disabilities in the Southern Africa Region.

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Summary

This representative study on living conditions among people with disabilities in Zimbabwe is the result of an international co-operation between Southern Africa Federation of the Disabled (SAFOD), Norwegian Federation of Organisations of Disabled People (FFO), University of Zimbabwe (Medical School; Department of Psychiatry and Department of Rehabilitation), and SINTEF Unimed. The study has been funded by the Atlas Alliance on behalf of Norwegian Agency for Development Co-operation (NORAD). In addition to the study itself, a capacity building component has been an important part of the collaboration.

Forming part of a Regional initiative to establish baseline data on living conditions among people with disabilities in Southern Africa, the study in Zimbabwe is the second to be published. The report, though largely descriptive, also comprises bi-variate and multivariate analyses. Further results from the study will be presented later in more focused scientific publications.

The study design was developed in close collaboration with a broad range of stakeholders. Organisations of people with disabilities and individuals with disabilities have played a

particularly active role during development of the design as well as in the data collection. Based on previous studies in the Region, the research instrument comprises a study on living conditions among households with and without disabled members, a screening instrument (for disability), a section with specific questions to individuals with disabilities, and a matrix that represents an operationalisation of core concepts from the International Classification of Functioning, Disability and Health (ICF).

A two-stage stratified sampling was carried out with enumeration areas as strata. A total of 1943 households with disabled members and 1958 households without disabled members were sampled in three regional areas: Matabeleland, Manicaland and Midlands.

A comparison with results from the Namibia study is included for some major indicators. In general, the patterns observed (both similarities and differences) between people with and without disabilities demonstrated in Namibia were replicated in Zimbabwe. It is however worth noting that some of these differences tended, on a few important indicators, to be weaker in Zimbabwe than those seen in Namibia.

The study design allows for the following types of comparisons: between individuals with and without disabilities, and between households with and without disabled members. With regards to demographics, households with disabled

members were found to have higher mean age and they were larger, having more children than did control households. These and other socio-demographic differences may be the result of certain coping mechanisms that have been established in households with disabled members, mechanisms intended to cater particularly to the increased care duties found in these households.

In Zimbabwe, the study has been carried out as three consecutive surveys in three regions covering 44 % of the population. The reason for this step-wise procedure is found in the rather difficult political and economic situation in Zimbabwe during the research period. Due to time and financial constraints, the entire country could not be surveyed. Although this is a weakness as compared to a full National study, it is reassuring that the results from the three regional studies are for the most part similar. It is thus likely that including more regions in the study would not uncover new patterns, particularly not with respect to the main results.

School attendance as well as performance (measured as school grade completed) is clearly lower among persons with disabilities. Among children 5 years of age or older, 27.9 % of those with disabilities had never attended school, while the corresponding figure for non-disabled was 10.1 %. Among those who had attended school, 24.4 % of those with disabilities had completed 8^{th} – 12^{th} grades as their highest

grade, while the corresponding figure for non-disabled was 32.3 %.

Unemployment is high in Zimbabwe. No significant difference was however found between disabled and non-disabled, reflecting possibly that an extensive system of specialized services for individuals with disabilities, in particular employment opportunities in sheltered workshops, have existed in the country since 1950's. It was further shown that mean monthly salary among those who work is not affected by a disability status.

Comparison between the two types of households revealed expected differences, although not with regards to economy and work. On many other indicators on level of living, households with disabled members did however score lower than the control households. This goes for housing standard, access to information, and to some extent also for measures of income. An important reason for this difference is very likely that more households with disabled members reported that no one in the household was gainfully employed. The study also revealed that 12.5 % of respondents with disabilities received financial assistance through a disability grant or pension, mostly a disability grant from Department of Welfare. One fifth of those who received grants had an old age pension. These figures are lower than in Namibia and may contribute to balance somewhat the impression that individuals with disabilities are comparatively better off in Zimbabwe.

Disability was found to be evenly spread with respect to age. This profile results from the demographic situation in Zimbabwe with more than half the population being under 20 years of age and relatively fewer in the 50 + age ranges. Around 45 % of those with disabilities had mobility difficulties (major or minor disability, paralysis), one third reported sensory impairments, while intellectual disabilities, learning disorders and emotional disorders accounted for 11 % of reported cases. It is interesting to note that this is very close to the corresponding profile for Namibia. The major causes of disability were reported to be either the result of illness, birth-related or congenital, and accidental. Close to half of the respondents reported onset of disability before the age of 5 years, indicating a serious challenge to health services for mothers and children in the country.

Among services available to persons with disabilities, health services were found to be available for the large majority of people with disabled, with more than 90 % of those who needed this service having actually received it. The most noticeable shortcomings with regards to service provision were vocational training, assistive devices, welfare services and counselling services. The first two were received by less than one fourth of those who claimed that they needed them.

An assessment of various forms of assistance that may be needed by individuals with disabilities in performing daily life

activities showed that a large majority of respondents claimed to need emotional support, surpassing by far all other types of assistance required. Economic support, or assistance with finances, was the second most often mentioned form of assistance needed. It is interesting to note that, within the family, the role of the individual with a disability does not appear to be much affected by their disability status.

While an overview of accessibility to different services, facilities and institutions gives a mixed picture, it is clear that certain of these facilities are not generally accessible to all. Hotels, workplaces, magistrate offices, recreational facilities and banks are all accessible to less than 30 % of individuals with disabilities. Health care clinics, hospitals and public transport are on the other hand reported to be accessible by the large majority. The mixed picture demonstrated with regards to accessibility indicates that the potential exists for improving accessibility for people with disabilities.

Assistive devices are used by a little more than one fourth of those surveyed with disabilities. Again it is interesting to note that this figure is higher than the corresponding figure for Namibia (< 20 %). It is further shown that most of the devices in use are functioning well, that many have received instructions on how to use them, but that only a small portion of devices are maintained professionally. In Zimbabwe, the supply of devices is apparently balanced between private and public sources. Compared with Namibia, a higher share of

devices is supplied by private sources in Zimbabwe, reflecting the strong tradition of privately initiated and organised services for individuals with disabilities in the country.

A matrix was developed and applied to map an individual's activity limitations and participation restrictions according to different parameters, domains or life situations (sensory experiences, basic learning and applying knowledge, communication, mobility, self care, domestic life, interpersonal behaviours, major life areas and community, social and civic life). It was found that individuals with mental/emotional impairments needed more help in their daily activities than did those in other disability categories. This group also reported more activity limitations and restrictions in social participation than others. Individuals with mental/emotional problems thus reported that they experience more barriers to full participation in society.

Activity limitation and participation restriction scores are higher in urban than in rural areas, indicating that complex societies in a sense produce disability. A further indication of this finding is reflected in the finding that needs for services were reported to be higher among those who attend school or are employed. Assessing the constructed indices based on activity limitations and participation restrictions with respect to indicators of living conditions revealed that both indices were associated with indicators on level of living. The more severe an individual's disability is as measured through limitations in

daily life activities and restrictions in social participation, the lower the level of school attendance and employment.

The baseline data and results produced through this study can be applied later for monitoring purposes. Results can be applied directly as documentation of the standard of living among people with disabilities and their families, and as a basis for comparison with non-disabled individuals and families without a disabled family member. This information is potentially useful when decisions are made on utilisation of meagre resources, as documentation and evidence to prospective donors or other funding sources, and as a tool for organisations of disabled people in setting priorities, educating their own members and the population in general, and as a basis for advocacy.

It is recommended that the results from this study are considered, together with other relevant sources, as a basis for dialogue between authorities, professionals and organisations of people with disabilities, for setting priorities, and for developing concrete measures within selected areas of priority.

Introduction

Based on the collaboration dating from 1995 between the Southern Africa Federation of Disabled People (SAFOD) and the Norwegian Federation of Organisations of Disabled People (FFO), an initiative was taken in 1998 to conduct two studies on living conditions among people with disabilities, one in Namibia and the other in Zimbabwe. Funded by the Norwegian Agency for Development Co-operation (NORAD), through the Atlas Alliance[3], SINTEF Unimed[4] was contracted by FFO to carry out first, pilot studies in Namibia and Zimbabwe in 1999-2000 (Eide et. al., 2001a; 2001b), and the main National data collections in 2001/2002. In Zimbabwe, the study was carried out together with University of Zimbabwe. SAFOD and the National Council of Disabled Persons of Zimbabwe (NCDPZ) have actively supported the study from its inception. Several ministries, organisations and professionals have been involved in the process leading up to the data collections that were carried out in November 2001, June 2002 and November 2003 (see list of involved parties in Appendix 1).

[3] The Atlas Alliance is an organization formed by Norwegian organizations of disabled, patients and their relatives, collaborating on support to disabled people in low-income countries. www.atlas-alliansen.no

[4] SINTEF Unimed is a contract based research institute in the SINTEF Group and is the largest health service research company in Norway. www.sintef.no

This report presents results from three Regional data collections in Zimbabwe. Results from the corresponding study in Namibia have been published in a separate report (Eide, van Rooy & Loeb, 2003).

The developmental objective for this project has been to contribute to the improvement of disabled people's living conditions, including also their level of social participation.

Specific aims include:

- To carry out representative nation-wide studies on living conditions among people with disabilities in Namibia and Zimbabwe
- To lay the groundwork for repeated and long-term data collections on living conditions among people with disabilities in the two countries
- To assist in capacity building among disabled peoples' organisations and among relevant professionals at ministerial level
- To assist the Southern African Federation of Disabled People in the establishment of The Disability Resource Centre for Southern Africa through training and technical assistance

For the study on living conditions, specific objectives or research topics have been:

- Development of an adapted design for studies on living conditions among people with disabilities in Southern Africa
- Establishment of a baseline on the level of living of people with disabilities in Zimbabwe
- Description and analyses of living conditions among people with disabilities in Zimbabwe
- Comparison of living conditions among people with and without disabilities
- Analyses of socio-demographic distribution of living conditions among disabled and non-disabled
- Applying components from the International Classification of Functioning, Disability and Health (ICF) in order to test their applicability in the context of a low-income country[5]
- Analyse the relationship between ICF components and standard of living

This report will concentrate on these specific objectives and research topics. Other publications will follow this report with specific focus on screening for disability, prevalence and the ICF model (activities and participation).

[5] Low-income countries will be applied throughout this report to cover terms like developing countries, non-industrialized countries, etc. Likewise, high-income countries are applied to cover developed countries, industrialized countries, etc.

1 Context[6]

History

Zimbabwe became independent in April 1980 bringing to an end 15 years of unilaterally declared independence by the former white-minority Government of Rhodesia and the armed conflict that it spawned. The Zimbabwe African National Union-Patriotic Front (ZANU-PF) has been in power since 1980.

Independent Zimbabwe inherited an economy that was more industrialised than most others in Africa, with a diversified productive base, well-developed infrastructure and a relatively sophisticated financial sector. Until recently, most of the productive land was owned by the white minority on large-scale commercial farms, while the majority of the population lived on less productive agricultural land.

Zimbabwe embarked on a substantial economic reform process in 1991 that was not successfully carried through. Since the late 1990's, the country has been grappling with the resolution

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[6] Sources:
World Bank (http://www.worldbank.org/afr/zw2.htm) Fact sheet on Zimbabwe, 2001
CIA (http://www.cia.gov/cia/publications/factbook/geos/zi.html) Fact sheet on Zimbabwe, 2003
WHO (http://www.who.int/country/zwe/en/) Country profile, 2001
Census 2002, Zimbabwe, Preliminary Results, Central Census Office, Harare

of fiscal problems; the inequities in land distribution, poverty and unemployment problems; population pressures; and unfavourable rainfall patterns. It is also faced with a growing HIV/AIDS epidemic partly due to increasing poverty levels and reduced access to basic social services. Economic deterioration has been exacerbated by invasions of commercial farms and continued military involvement in the Democratic Republic of Congo.

Economy

Zimbabwe's economy relies heavily on agricultural crops such as tobacco, cotton, and sugarcane, and on related manufacturing industries such as textiles and sugar production. Mining, primarily gold, is also a major activity.

Zimbabwe achieved an average 1.7 percent GDP growth between 1991-95, 7.3 percent in 1996 and 3.5 percent in 1997. Since 1997, Zimbabwe has been experiencing an economic and social crisis induced by declining prices for its key export products and poor economic policies, and heightened by a decrease in tobacco exports following farm invasions, increased fiscal deficit, and loss of investor confidence arising from uncertainty about domestic policies. The economy has contracted by about 5 percent in 2000 and this development has continued after this, given the decline in revenues from agriculture, manufacturing and tourism. Flooding and droughts in the region has also had an adverse impact on the economy and livelihoods of especially rural

populations. A food deficit has resulted from a combination of natural disaster and economic problems, and distribution of food has been necessary to alleviate a hunger catastrophe among the rural population.

Zimbabwe is currently in arrears to internal and external creditors, leading to suspension of disbursements and credit lines by some creditors. This has aggravated the foreign exchange shortage within the country, making key imports such as fuel and electricity in short supply.

Politics

Zimbabwe is a multiparty republic with an executive president and a parliament consisting of 150 members. Ten members are chosen by traditional chiefs, 20 are appointed by the President, and the balance is elected. The most recent parliamentary election, held in June 2000, returned Mr. Robert Mugabe and the ruling Zimbabwe African National Union-Patriotic Front (ZANU-PF) party to power with a narrow margin. The opposition party, Movement for Democratic Change (MDC), won the majority of the urban votes. Presidential elections held in April 2002 re-instated Mugabe as president.

Veterans of the war for independence invaded a number of commercial farms in the run-up to the 2000 elections. Subsequently, the Government gazetted over 5,300 farms for compulsory acquisition and resettlement. Efforts continue on

the part of several parties, including donors, to find an orderly and satisfactory approach to land reform.

Geography

Zimbabwe lies in Southern Africa, bordering the South Africa, Botswana, Zambia and Mozambique. The country covers a total area of 390,580 sq. km, of which 3,910 sq. km (1%) is water. The climate is characterised as tropical, moderated by altitude with a rainy season between November and March. The terrain is mostly high plateau with a higher central plateau or high veldt and mountains in the east.

People

Preliminary results of the 2002 Census place the current population of Zimbabwe at 11,634,663. (Note: estimates take into account the effects of excess mortality due to AIDS; this can result in a lower life expectancy, higher infant morality and death rates, lower population and growth rates, and changes in the distribution of population by age and sex than would otherwise be expected). Considering the above area, the average density is approximately 30 people per sq. km.

Other sources (World Bank, 2003 estimates) describe the age structure:

- 0-14 years: 39.7% (male 2,517,608; female 2,471,342)
- 15-64 years: 56.8% (male 3,600,832; female 3,542,497)
- 65 years and over: 3.5% (male 224,631; female 219,832)

It is estimated that the median age of Zimbabweans is 18.9 years.

The population growth rate is estimated at 0.83% while the birth and death rates are 30.3 births/1,000 population and 22.0 deaths/1,000 population respectively.

Two leading indicators of development are the infant mortality rate (IMR: deaths before 1st birthday/1,000 live births) and child mortality rate (CMR: probability of dying under 5 years of age).

Total infant mortality rate in Zimbabwe is estimated at 66.5/1,000 live births with the CMR at about 124 deaths before 5 years/1,000.

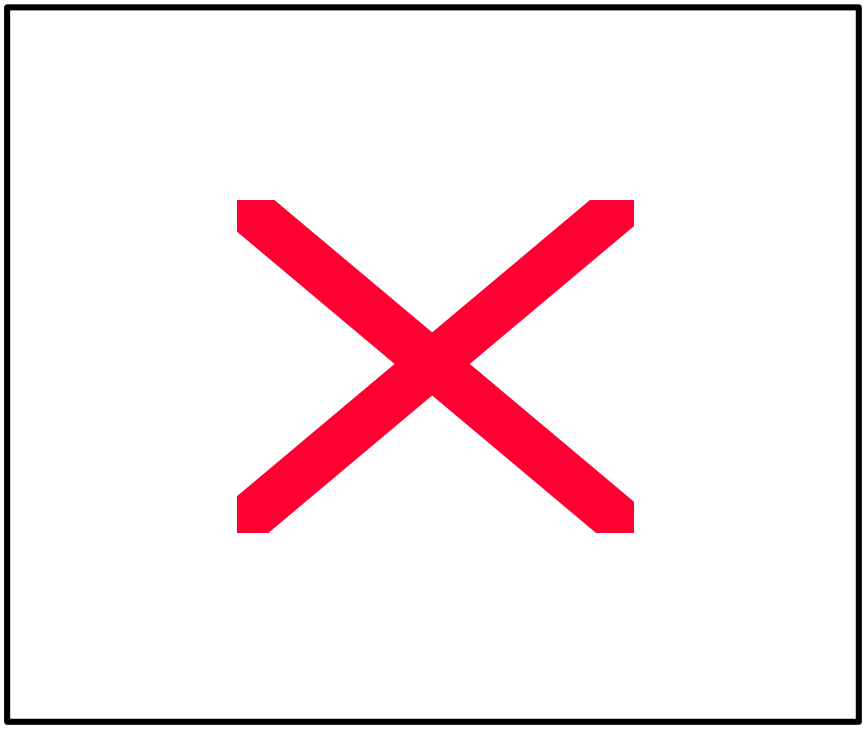
For the total population life expectancy at birth is currently estimated at about 39 years (for females: 38 years and for males 40 years).

Total fertility rate is 3.66 children born/woman. 2001 estimates of the HIV/AIDS situation set the adult prevalence rate at 33.7% and estimates from that year indicate that approximately 2.3 million people are currently living with HIV/AIDS.

Zimbabwe is composed of several ethnic groups. About 98% of the population is African (82% Shona, 14% Ndebele and 2%

other). One percent of the population is mixed and Asian with whites composing the remaining less than 1%. Half the population is classified as syncretic (part Christian, part indigenous beliefs) 25% as Christian, 24% indigenous, with Muslims and others making up the remaining 1%.

It is estimated that 91% of the total population (94% males and 87% females) are literate (defined as: age 15 and over and can read and write).



Map of Zimbabwe (Source; Factbook - Zimbabwe 2003)

2 Living conditions among people with activity limitations in low income countries

According to UN estimates, the population of disabled people in the world is between 225 and 350 million people. This is based on a 10 % estimated prevalence rate (WHO, 1981), intended to cover severe, moderate and mild disabilities. Although the WHO estimates are challenged also by the current study, we are nevertheless dealing with a large sub-population. The large majority of disabled people live in developing or low-income countries, very often living without optimal technical, medical or social support that could have improved their level of living conditions considerably. Disabled people are often marginalised and belong to the poorest segments of society (UN, 1996).

The situation for people with disabilities in low-income countries is of concern for Governments, Non-Governmental Organisations (NGO), as well as for the International Community. Their rights have been the subject of much attention in the United Nations and other international organisations over a long period of time. The International Year of Disabled Persons (1981) and the United Nations Decade of Disabled Persons (1983 – 1992) culminated in the World Programme of Action Concerning Disabled Persons (UN,

1993). The Programme emphasises the right of persons with disabilities to the same opportunities as other citizens and to an equal share in the improvements in living conditions resulting from economic and social development. In 1993, the General Assembly approved The Standard Rules on the Equalisation of Opportunities for Persons with Disabilities (Resolution 48/96) (UN, 1994), setting specific targets and requesting a strong moral and political commitment on behalf of States to take action for the equalisation of opportunities for persons with disabilities.

Knowledge about the current situation is important as a tool for advocacy and practical action, when agreeing on acceptable standards, setting priorities and planning for required improvements. Without the necessary information and knowledge, Governments, NGOs and International Organisations are more or less forced to work arbitrarily on a hit or miss basis. Under such circumstances resources cannot be distributed and utilised in a rational, efficient manner. Unfortunately, the lack of knowledge is clearly most pronounced in developing countries with scarce resources and thus with the greatest need for cost-effective strategies that would improve the living conditions among people with disabilities.

Both the World Programme of Action and the Standard Rules comprise explicit formulations that reflect the need for information, data collection and research on the situation of

disabled people, and particularly so in developing countries. According to the World Programme of Action, member states should develop a programme of research on the causes, types and incidence of impairment and disability, economic and social conditions of disabled persons as well as on obstacles that affect their lives. Such formulations are also found in the Disability Policy of Namibia[7], South Africa[8], and in the draft policy document soon to be adopted in Malawi[9], among others.

2.1 Disability data in low-income countries

In recent decades, the collection of data and the production of statistical information on topics relevant to rehabilitation and disability have proliferated (UN, 1996). Rehabilitation programmes, national censuses and survey programmes within different Government sectors are producing increasing amounts of information on impairments, disabilities and handicaps. Needless to say, the bulk of this information is produced in the industrialised countries. In addition, most of the current statistical information is, unfortunately, produced without the benefit of a common terminology or standard procedures and guidelines. It is further claimed (UN, 1996) that there are problems with the quality of existing data and that quality problems are most pronounced in developing countries.

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[7] MLRR (1997) National Policy on Disability. Windhoek, Ministry of Lands, Resettlement and Rehabilitation.

[8] Office of the Deputy President. (1997) White Paper on an Integrated National Disability Strategy. Pretoria, Office of the Deputy President.

[9] Malawi Government. Draft National Disability Policy. Office of the Minister of State Responsible for Persons with Disabilities. December, 2001.

The demand for quality statistics on persons with disabilities has increased greatly in recent years following the International Year of Disabled Persons (1981), the World Programme of Action Concerning Disabled Persons, and the Standard Rules on the Equalisation of Opportunities for Persons with Disabilities. The World Programme of Action specifically requested the United Nations to develop systems for the regular collection and dissemination of information on disability. The UN provides a web site as a step in implementing this mandate. It provides a convenient statistical reference and guide to the available data, specifically,

- national sources of data
- basic disability prevalence rates
- questions used to identify the population with disability.

2.1.1 Comparability of disability statistics

Many countries collect data on disability but the prevalence rates derived from these data vary greatly for a variety of reasons including:

- conceptual issues - disability as the result of an interaction between the person with the disability and their particular environment. Under these circumstances, disability is seen as a non-static, complex phenomenon that can be conceptualised in many ways, including at the level of the body, the person, or the society.
- measurement issues - the questions used, their structure and wording, and how they are understood and interpreted

by the respondents all affect the identification of the persons with disabilities in data collection.

For these reasons, the observed differences among countries in the rates (or percentages) reflect conceptual and measurement differences, to varying degrees, as well as "true" differences. To achieve broader comparability among countries, much work needs to be done to further develop classifications and concepts, such as the International Classification of Functioning, Disability and Health (ICF), as well as measurement instruments to implement them in national statistical efforts.

2.1.2 Methodological Work on Disability Statistics

The United Nations Statistics Division (UNSD) publication *Guidelines and Principles for the Development of Disability Statistics*[10] aimed at assisting national statistical offices and other producers of disability statistics in improving the collection, compilation and dissemination of disability data. The document addresses methodological issues in the area of disability by providing guidelines and principles related to data collection, through surveys and censuses and also on the compilation, dissemination and usage of data on disability. The publication builds on the *Manual for the Development of Statistical Information for Disability Programmes and*

[10] Guidelines and Principles for the Development of Disability Statistics (United Nations publication, Sales No. E.01.XVII.15)

Policies,[11] and also on the section on disability in the *Principles and Recommendations for Population and Housing Censuses, Revision 1*.[12]

The *Guidelines* recommend that disability be measured within the conceptual framework of the WHO *International Classification of Functioning, Disability and Health –ICF* (World Health Organisation, Geneva, 2001). The ICF conceptual framework provides standardised concepts and terminology that can be used in disability measurement instead of the unstandardised and often pejorative terms used in many national studies on disability. The use of a common framework also contributes to greater comparability of data at the national and international levels, thereby increasing the relevance of the data to a wide set of users.

2.1.3 Regional training workshops on disability statistics

Since the finalisation of the *Guidelines*, the UNSD has organised and conducted two regional training workshops on disability statistics. The overall objective of these workshops was to strengthen national capabilities to produce, disseminate and use data on disability for policy development and implementation. A specific objective of the workshops was to discuss the use of the ICF as the conceptual framework for collecting and classifying data on disability. At the workshops,

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[11] Manual for the Development of Statistical Information for Disability Programmes and Policies (United Nations publication, Sales No. E.96.XVII.4).

[12] Principles and Recommendations for Population and Housing Censuses, Revision 1 (United Nations publication, Sales No. E.98.XVII.8).

participants from national statistical offices and data users from relevant government ministries were trained in how to identify disability data needs, and the use of the ICF concepts and definitions in the design of questions on disability and classification of the data.

The first regional training workshop on disability statistics was the *United Nations Workshop on Disability Statistics for Africa*, which was held in Kampala, Uganda, from 10-14 September 2001. The workshop recommended that the ICF concepts be used in the measurement of disability to encourage the use of common definitions and neutral terminology that would improve data comparability in the region. The second workshop, the *Meeting on Disability Measurement for ESCWA Countries*, was held in Cairo, Egypt from 1-5 June 2002 in collaboration with the Economic and Social Commission of West Asia (ESCWA). A recommendation of the meeting was that the ICF be used as the unifying framework for disability measurement in the region.

2.1.4 Measurement of Disability

The measurement of disability for statistical reporting was the focus of the International Seminar on the Measurement of Disability held in New York 4-6 June 2001 and sponsored the by UNSD, UNICEF, Eurostat and the Centres for Disease Control and Prevention (CDC) of the United States. The Seminar, which brought together experts in disability measurement from developed and developing countries reviewed and assessed the current status of methods used in

population-based data collection activities to measure disability in national statistical systems, and agreed to establish the Washington Group on Disability Statistics (WG) to implement the Seminar's recommendations for further work to improve the measurement of disability.

The first meeting of the WG, initiated by UNSD and hosted by the National Centre for Health Statistics of the CDC, was held in Washington, D.C., on 18-20 February 2002. The meeting refined the objectives of the WG to be: (1) To guide the development of a small set(s) of general disability measures, suitable for use in censuses, sample based national surveys, or other statistical formats, which will provide basic necessary information on disability throughout the world; (2) To recommend one or more extended sets of survey items to measure disability or principles for their design, to be used as components of population surveys or as supplements to speciality surveys; and (3) To address the methodological issues associated with the measurement of disability considered most pressing by the WG participants.

In addition to setting the objectives of the WG, the first meeting discussed various methodological issues in disability measurement, including purposes of measurement, an examination of the ICF model, the UN standard disability tables, global measures of disability, the relationship of global measures to the ICF, the confounding function of assistive device use, cultural practices that influence the nature of the

environment or proscribe participation, cultural issues that act as barriers to collecting data and cross-national comparability of information.

The second meeting of the WG was held in Ottawa, Canada on 9-10 January 2003, and covered the following topics: development of a measurement matrix that linked purpose of measurement with question characteristics; review of general disability measures currently in use according to matrix dimensions; identification of measurement gaps; general health measures used in censuses and surveys; implementation of the Minimum European Health Module; reports from selected countries using general disability measures; measurement of environment and participation in existing surveys.

The third meeting of the WG will be held in Brussels, Belgium in December 2003 (tentative). The tentative programme agenda for this meeting can be accessed at the WG website, http://www.cdc.gov/nchs/citygroup.htm. This website also contains the agenda and products of the first and second meetings of the WG, including the final report.

The Statistics Division of the United Nations has established the Disability Statistics Database for Microcomputers (DISTAT), and is currently working on the development of a system for data collection. DISTAT contains disability statistics from national household surveys, population censuses, and

population or registration systems. The 1990-edition of the Disability Statistics compendium covers 55 nations, among them a few African countries (UN, 1990).

As examples of information from African countries contained in this compendium, the national disability prevalence rate in Swaziland is given at approximately 3 %. Reviewing the age specific figures for the rural population in five African countries (Comoros, Egypt, Ethiopia, Mali and Tunisia), the rate varies from around 1 – 4 % in the younger age groups (under 24 years) and gradually increases with age to reach a level of 2 – 12 % among 50 year olds. The prevalence rate (of disabled persons) per 100 000 population is reported for some African countries and varies from just below 1000 to more than 3000. It is interesting to register that the figure for Norway is as high as 15000 (15%), in line with other industrialised countries and reflecting, first of all, that there are serious methodological problems associated with the comparison of figures from different sources across countries. Definitions of disability, methodologies for data collection as well as quality of the data collected vary (Eide & Loeb, in preparation).

The 1997 edition of the Human Development Report (UNDP, 1997) includes estimates of the prevalence of disabilities as percentage of total population in each country. According to this source, the prevalence of disability is 1.6 % in Zambia and 2.9 % in Malawi. Among the black population in South Africa prevalence of disability (sight, hearing/speech, physical

disability and mental disability) has been estimated to 5.1%. Two separate studies in South Africa (coloured urban and black rural communities) have established prevalence rates of 4.4% and 4.75% (Katzenellenbogen et. al., 1995; Concha and Lorenzo, 1995). The recent Census in Namibia reported an overall disability prevalence in the country of 4.7% (NPC, 2003), while the study on living conditions found 1.9 % (Eide, van Rooy & Loeb, 2003).

Most countries in Africa, Zimbabwe included, have carried out and published population censuses that provide some information on living conditions. Unfortunately, information on disabilities and the living situation of people with disabilities have rarely been included. The population censuses after the year 2000 are, however, expected to cover disability (UN, 1997), following the revision of the census recommendations[13]. Both in Namibia (see above) and in Zimbabwe (to be published early 2004), a few questions about disability have now been included.

The national disability survey undertaken in South Africa in 1998/99 represents an important exception to the general lack of representative, National data in the region. A National representative survey of 10000 households was carried out to determine the prevalence of disabilities as well as describe the

[13] National Censuses have recently been carried out in both Namibia and Zimbabwe (2002). In both countries, screening questions influenced by an activity based understanding of disability have been included. At the time of writing this report, no results have however been reported from the two censuses.

disability experience as reported by disabled people or their proxy reporters (Schneider et al., 1999). The focus of the survey was on the “traditional” categories of impairments, and the results include a count of the number of people with reported disabilities or activity limitations, as well as a quantitative analysis of the respondents’ personal experience of their disability. According to this study, disability prevalence rates varied between 3.1 % and 8.9 % in the different provinces.

Although the progress made in this field is quite substantial, data on disability are still infrequent and are significant by their absence in development reports. A further point to be mentioned here is that the international monitoring system developed by the United Nations will largely be limited to a small number of standardised indicators intended for international comparison. More comprehensive and culturally adapted studies of living conditions will be necessary in developing countries in order to establish a knowledge basis that can guide development of policy and practice.

2.2 Relevant studies in Zimbabwe

Although the Population Census in 1980 comprised a mapping of the number of disabled people, the information from this study is very limited. Supported by UNICEF, the Ministry of Labour and Social Welfare did however carry out a National Disability Survey in 1981 (MLSS, 1982). This study revealed that there were approximately a quarter of a million people with disabilities in Zimbabwe at that time. The most prevalent

functional problem was visual impairment (25% of all with impairments), followed by impairment in the lower limbs (24%), upper limbs (12%), mental retardation or disability problem or emotional illness (9.7%), hearing (8.2%), speech impairments (7.4%), and neurological problems (5.5%)[14]. It was further revealed that the risk of disablement during the first four years of life was 15 times as greater than in adulthood. Diseases, accidents, war-related incidents, and peri-natal factors as malnutrition and hereditary factors were, in descending order, the most commonly stated causes of impairment. The study also comprised a few socio-economic indicators, revealing that 52% of the persons with disabilities in 1981 had never attended school and that only 1% had progressed beyond secondary school. Disability was further found to reduce dramatically the individuals' opportunities on the job market.

The 1992 Census did not include any questions on disability or living conditions of people with disabilities. Results from the 2002 Population Census which included questions on disability, will not be published until early 2004. Thus, no up-dated, population based figures on disability have been available in Zimbabwe before this study.

[14] This distribution of types of disabilities corresponds fairly well with the results from the current study (Table 5.23).

3 Concepts

Disability and living conditions are core concepts to the study presented in this report. Our understanding of these concepts has progressed through some interesting developments in recent years. Both concepts are open to interpretation and can be perceived in different ways. In addition, it is important to be aware that the understanding and application of these concepts will vary from one socio-cultural context to another (Whyte & Ingstad, 1998). As the concepts are important for the design of the study as well as for the analyses and understanding of results, some clarifications are necessary.

3.1 Disability

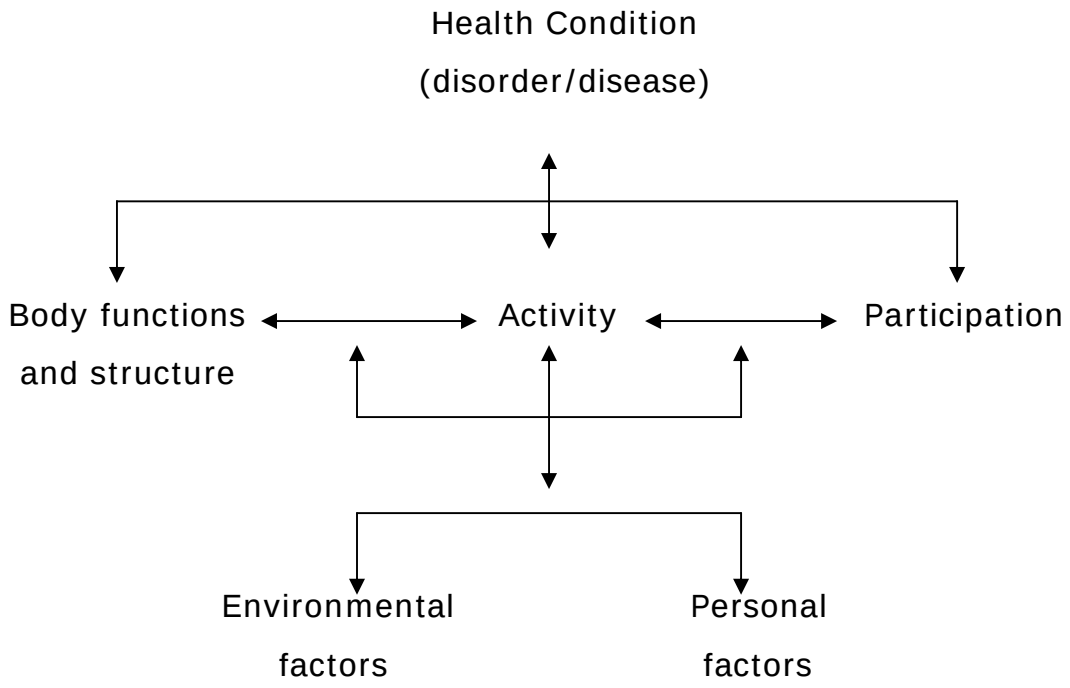
During the 1970s there was a strong reaction among representatives of organisations of persons with disabilities and professionals in the field of disability against the then current terminology. The new concept of disability was more focused on the close connection between the limitations experienced by individuals with disabilities, the design and structure of their environments and the attitude of the general population. Recent development has seen a shift in terminology and an increasing tendency towards viewing the disability complex as a process

(the disablement process), involving a number of different elements on individual and societal levels.

ICF

The adoption of the World Health Organisation's International Classification of Functioning, Disability and Health (WHO, 2001) represents a milestone in the development of the disability concept. From 1980 and the first classification (The International Classification of Impairments, Disabilities and Handicaps (ICIDH) (WHO, 1980)), a 20 year process has resulted in shift in the WHO conceptual framework from a medical model (impairment based) to a new scheme that focuses on limitations in activities and social participation. Although not representing a complete shift from a strictly medical to a strictly social model, the development culminating with ICF nevertheless implies a much wider understanding of disability and the disablement process.

Figure 1. The Model of Functioning and Disability



Application

The conceptual development from ICIDH to ICF is important here as this shift also has a methodological parallel. The classification forms a basis for the collection of statistical data on disability. The current study does not represent an application of ICF, and it has not been the intention to test the new classification as such. Rather, the study is inspired by the conceptual basis for ICF and has attempted to approach disability as activity limitations and restrictions in social participation. This is pronounced in the screening procedure and in the inclusion of a matrix on activity limitations and social

restrictions developed particularly for this study. The current study does, none the less, provide a unique possibility for applying some core concepts from the ICF and testing some aspects of the model statistically[15].

An understanding of disability as defined by activity limitations and restrictions in participation within a theoretical framework as described in Figure 1 underlies this study. The term "disability" is, with this in mind, a problematic concept since it refers to, or is associated with, an individualistic and impairment-based understanding. As a term, it is nevertheless applied throughout this text since it is regarded as a commonly accepted concept, and its usage is practical in the absence of any new, easy to use terminology in this sector.

UN initiative

In September 2001 the United Nations Statistics Division sponsored a conference in Kampala, Uganda. The objective of the workshop was to strengthen national capabilities in disability statistics by training producers and users in the production, dissemination and use of data on disability for policy development and implementation. The workshop brought together representatives (both data producers and data users) from 11 African nations including Zimbabwe for exchanging

[15] Will be published separately

information and experiences related to the measurement of disability using varied collection mechanisms.

The conference included an analysis of the constraints of data collection systems and emphasised weaknesses according to the system selected, as well as issues related to measurement error, disability definitions, and balancing the needs of data producers and data users. Issues related to cultural influences on reporting limitations were discussed.

Participants were introduced to the ICF and its use in framing numerous areas of the *Standard Rules* as elements of the Participation dimension. Initial exercises focused on setting policy priorities using the *Standard Rules*, and then translating the elements into disability items for use in surveys. A second set of exercises allowed the participants to take already established disability screening items from other surveys and craft them for relevance in their country's data mechanism. The elements of the questions were described using dimensions of the ICF. Importance was placed on wording questions so that the relevant policy issues could be addressed.

The Workshop ended with unanimous assent of the participants for the following recommendations;

- Governments should advocate inclusion of disability questions in censuses and surveys

- There is need to involve stakeholders (users, producers, persons with disabilities) in the process of developing data collection instruments to measure disability and in the data collection process as a whole
- The WHO *International Classification of Functioning, Disability and Health* (ICF) concepts should be used in the measurement of disability
- The following principles should apply in the design of questions to measure disability:
    - The question(s) should refer to activity limitations
    - The question(s) should ask for activity limitations in the context of a medical condition
    - The question(s) should ask for type and duration of activity limitation
    - The question(s) should include degree or severity of activity limitation

In light of the African Decade of Disabled Persons, there is need to strengthen and streamline the collection of data on disability into the general data collection system. The conference concluded that the United Nations Statistics Division and the United Nations Division for Social Policy and Development should provide guidance towards the realisation of the objectives of the African Decade of Disabled Persons and of the Workshop. Furthermore, countries should maintain a network of persons involved in the measurement of disability in the region

to facilitate the exchange of information on methodologies used and results obtained. In this regard, the United Nations Statistics Division should act as a facilitator. Regional statistical institutions should take a lead role in the collection of disability statistics in the region.

The current study and study design draws on the discussions and conclusions from the conference in Kampala. In particular the screening instrument applied here corresponds to the recommended way of screening for disability.

ENVIRONMENTAL FACTORS

Environmental factors are important elements in the ICF model, and it is fundamental to the present understanding of disability that activity limitations and restrictions in participation are formulated in the exchange between an individual and his/her environment. In the current study, environmental factors are included in an activity and participation matrix (Appendix 2). It is however acknowledged that studies like the current one traditionally focus on the individual and that this is also the case here.

3.2 Living conditions

The concepts of “level of living” or “living conditions” have developed from a relatively narrow economic and material

definition to a current concern with human capabilities and how individuals utilise their capabilities (Heiberg & Øvensen, 1993). Although economic and material indicators play an important role in the tradition of level of living surveys in the industrialised countries, an individual's level of living is currently defined not so much by his or her economic possessions, but by the ability to exercise choice and to affect the course of his or her own life. The level of living studies have been more and more concerned with such questions and are currently attempting to examine the degree to which people can participate in social, political and economic decision-making and can work creatively and productively to shape their own future (UNDP, 1997).

A number of core items can be regarded as vital to any level of living study: Demographics, health, education, housing, work and income. Other indicators may comprise use of time, social contact, sense of influence, sense of well being, perceptions of social conflict, access to political resources, access to services, social participation, privacy and protection, etc. The choice of which indicators to include will vary according to the specific requirements of each study and the circumstances under which the studies are undertaken.

3.3 Disability and living conditions

Research on living conditions is comparative by nature. Comparison between groups or monitoring development over time within groups and populations are often the very reasons

for carrying out such studies. The purpose is thus often to identify population groups with certain characteristics and to study whether there are systematic differences in living conditions between groups – or to study changes in living conditions within groups over time and to compare development over time between groups. Population sub-groups of interest in such studies are often defined by geography, gender, age – or the focus of the current research, i.e. people with disabilities vs. non-disabled. Research in high-income countries has demonstrated that people with disabilities are worse off along the whole spectre of indicators concerning living conditions, and that this gap has also remained during times with steady improvement of conditions for all (Hem & Eide, 1998). This research-based information has been very useful for advocacy purposes, for education and attitude change in the population, as well as for planning and resource allocation purposes. Whether the same mechanisms of systematic differences and reproduction of differences are at work in predominantly poor contexts, still remains to be documented.

When the purpose is to study living conditions among people with disabilities, we depend on being able to operationalise in order to identify who is disabled and who is not. This is a more complex issue than choosing between a “medical model” on one side and a “social model” on the other. How this is understood and carried out has major impact on the results of research, and consequently on the application of results (see chapter 4.1 on

the disability concept). The ICF may to some extent be viewed as an attempt to combine a broad range of factors that influences the “disability phenomena”.

The authors behind this research report support the idea that disability or the disablement process is manifested in the exchange between the individual and his/her environment. Disability is thus present if an individual is (severely) restricted in his/her daily life activities due to a mismatch between functional abilities and demands of society. The role of the physical and social environment in disabling individuals has been very much in focus during the last 10 – 20 years with the adoption of the Standard Rules, the World Programme of Action, and lately the ICF (WHO, 2001). It is logical that this development is followed by research on the mechanisms that produce disability in the meeting between the individual and his/her environment.

It is true that studies of living conditions among people with disabilities in high-income countries have been criticised for not evolving from an individualistic perspective. Data are collected about individuals and functional limitations are still in focus. It is a dilemma that this research tradition has not yet been able to reflect the relational and relative view on disability that most researchers in this field would support today. While we agree to such viewpoints, we nevertheless argue that a “traditional” study is needed in low-income countries to allow for a

description of the situation as well as comparing between groups and over time. In high-income countries such studies have shown themselves to be powerful tools in the continuous struggle for the improvement of living conditions among people with disabilities. In spite of an individualistic bias in the design of these studies, the results can still be applied in a critical perspective on contextual and relational aspects that represents important mechanisms in the disablement process.

3.4 Combining two traditions and ICF

The design that has been developed and tested here aims at combining two research traditions: studies on living conditions and disability studies[16]. Pre-existing and validated questionnaires that had been used in Namibia (on general living conditions – NPC, 2000) and in South Africa (on disability – Schneider et. al., 1999) were combined and adapted for use in the surveys. A third element, on activities and participation, was included to incorporate the conceptual developments that have taken place in connection with development of ICF. By combining the two traditions, a broader set of variables that can describe the situation for people with disabilities are included as compared to the traditional disability statistics. Secondly, a possibility is established for comparing the conditions of disabled people (and households with disabled people) with non-disabled (and households without any disabled members). It is argued that such comparative information is much more potent

[16] By ”disability studies” we understand a broad specter of different studies that have generated knowledge about the situation of people with disabilities.

in the struggle for improvement of the situation for disabled people, reflecting the developmental target for the current study.

4 Design and Methods

As mentioned above, data collection questionnaires that had previously been used in Namibia (on general living conditions – NPC, 2000) and in South Africa (on disability – Schneider et. al., 1999) were combined and adapted for use in Zimbabwe. In addition, a disability-screening instrument was included as well as a matrix on activities and participation developed specifically for this study and drawing on the concepts of the ICF. The design applied in this study in Zimbabwe is similar to the design applied in the previous study in Namibia (Eide, van Rooy & Loeb, 2003), save some minor differences in formulations of certain questions.

User participation was an important element in the design development. This process comprised:

i) A two-day workshop attended by around 25 professionals, researchers, people with disabilities and civil servants who discussed and tested a draft research instrument

ii) Pilot-testing of the research instrument among 150 households with and 150 households without disabilities in two high-density suburbs on the outskirts of Harare, Mbare and Sunningdale (Eide et. al., 2001b)

iii) Further revisions of the research instrument based on experience from the pilot survey and a second two-day workshop including the same resource persons and stakeholders as previously.

After revision, the questionnaire comprised four key elements; i) household study on living conditions, ii) screening for disability, iii) questions to individuals with disabilities including iv) the ICF based matrix on activities and participation. The final version of the questionnaire was developed in English. Simple field tests were carried out during training leading to a few adaptations to local dialects.

From the onset, the target population for sampling was all private households in Zimbabwe excluding institutionalised and homeless people. Due to the circumstances in Zimbabwe at the time of initiating the research, including both security issues and a difficult and fluctuating currency market, it was decided to proceed in a stepwise fashion rather than embarking on a full National survey that, due to these circumstances, may have failed. The research exercise and data collection were thus tackled regionally, yielding population-based studies that covered Matabeleland, Manicaland and Midlands. The below map indicates the geographical areas that were covered by the study.

Political map of Zimbabwe – regions surveyed: Matabeleland North & South (including Bulawayo), Midlands, Manicaland.

Data collection was carried out in Matabeleland in November – December 2001, in Manicaland in April - May 2002, and in Midlands in January – February 2003. All three data collections applied stratified single-stage cluster sampling. The Central Statistical Office carried out sampling within each Region, applying the current National sampling frame. This is an area frame based on the Enumeration Areas (EAs) and stratified by regions, and within regions by urban and rural locations. The EAs were selected with equal probability for inclusion in the study.

A total of 21712 individuals in 3901 households were sampled within the three regions. These three regions cover 5 out of 10 Provinces in the country and approximately 44 % of the total population of Zimbabwe. The total population of the three regions is 5.1 million. The population of the selected enumeration areas in the three regions is 69821.

The second step in the sampling procedure was screening for disability by interviewing primarily the heads of all households in the sampled enumeration areas. This exercise (termed "listing") was also carried out by Central Statistical Office. A common approach to screening for disabilities in the censuses of many low-income countries is by asking for specific impairments. The approach used in this survey was, however, based on an understanding of disability as difficulties in doing day-to-day activities and/or as restrictions in social participation.[17]

Screening question 1: *Does anyone in this household ever have any difficulty in doing day to day activities because of a physical, mental or emotional (or other health) condition which has lasted or is expected to last for six months or more?* (Response categories: yes, no).

Screening question 2: *Does anyone in this household need assistance in participating in any of the following activities?*

[17] The screening questions reflect an understanding of disability according to the International Classification of Functioning and Health (ICF) (WHO, 2001).

(walking, seeing, speaking, hearing, breathing, mental coping, learning/comprehending) (Response categories: yes, no).

The national listing carried out by the Central Statistical Office in 2002 identified a total of 4133 persons with disabilities among a population of 141 088, giving a disability prevalence of 2.9% within a national sampling frame.

Not all households or individuals identified through the national listing procedure were included in the final survey. Only selected enumeration areas in Matabeleland, Manicaland and Midlands are included in the results presented here. All households with disabled members were included (n=1958). These households were later revisited and comprehensive questionnaire-based interviews were carried out of the person with a disability or a proxy if they were not able to respond due to absence, age, disability or some other factor. During this exercise, the screening procedure was repeated and a total of 2071 individuals with difficulties in carrying out day-to-day activities were identified, thus qualifying as being disabled. This comprises 50% of those with disabilities listed nationally and 2.7% of the total listed population in the three regions.

Among a total listed population in Matabeleland of 36080, 870 individuals were identified with disabilities, yielding a prevalence rate of 2.4%. In Manicaland 665 individuals with disabilities were identified among a listed population of 23319, yielding a prevalence rate of 2.9% and in Midlands 536

individuals were identified among a population of 16416, yielding a prevalence rate of 3.3%.

Dr. Sekai Nhiwatiwa from University of Zimbabwe (Department of Psychiatry) was responsible for recruiting and training of enumerators, carrying out the data collection, data cleaning and entry. She was assisted by Ms. Jennifer Muderedzi, also UZ (Department of Rehabilitation), Mrs. Sheila Chidyausiku from Ministry of Health and Mrs. Cecilia Nleya from Ministry of Health in Bulawayo. SAFOD has taken care of and ensured transparency with regards to the economic aspects of the studies.

Data collection was carried out by 4 – 5 teams in each Region, each team comprising 5 – 7 enumerators. The Principal Investigator in Zimbabwe (Dr. Nhiwatiwa) co-ordinated the exercises, supported by the Assistant Investigator (Ms. Jennifer Muderedzi). Each Team was led by a Supervisor who was responsible for the quality of the work in the field and handed in. A total of 80 – 90 enumerators were involved. Important criteria for being employed as enumerator were fluency in English as well as the relevant local languages, and education level to at least 5 good passes at O Level. Care was also taken to include persons who came from the areas where the data collection took place. Not least, efforts were made to recruit enumerators with disabilities through the participating organisations. Approximately 50 % of the enumerators were disabled.

In order to obtain a control sample of households without disabled members, the household neighbouring each of the identified households with disabled members were systematically selected. The two groups in the sample are thus representative for the population of households with and without disabled members in three Regions in Zimbabwe.

The sampled households were visited by one enumerator who carried out the interview with the head of the household. It was the intention that the person identified as having a disability should respond to the disability portion of the questionnaire him/herself. This was the case in 53% of those interviewed. The remaining 47% of the disability questionnaires were completed by a proxy. If the situation arose that no one was present at a selected household, then that household was later revisited.

Missing information turned out to be a minor problem, as data collection failed in few households.

All questionnaires were controlled and signed by a supervisor after the interview. Completed questionnaires were transported to Harare for data cleaning and entry. Data entry was facilitated by using the EPI INFO 6 (version 6.04b) data entry programme. Upon completion of data entry, the data were relayed to Norway and converted to SPSS format for analysis using SPSS 11.0.

5 Results

The results are presented in two sub-chapters:

- Results from the study on level of living conditions, comparing individuals with/without disabilities and households with/without disabled persons; and
- Disability study. Separate study among the identified persons with disabilities, including a separate section with questions about difficulties, activities and participation.

There are several reasons for treating the three Regional studies separately. Matabeleland, Manicaland and Midlands are distinct in terms of geography, history and culture. There are also methodological reasons for separating the three regions: they were surveyed consecutively. After the survey was completed in one region, it was initiated in the next, meaning that time becomes a factor in the survey. Furthermore, while attempts were made to hold survey methodology consistent, it is possible that slight adaptive changes occurred along the way.

Results are however presented for the three regions combined and statistical analyses across the three regions have been carried out and presented when statistically significant and

when these results were considered useful in explaining observed differences.

In addition, particular care has been taken during analyses to control for both gender and the urban/rural dimension. Whenever these controls have revealed significant differences, this is commented in the text, otherwise not.

Table 5.1 provides an overview of number of households and individuals included in the data collection.

Table 5.1 Number of households and individuals in the study

Source	Households	Individuals	Persons with disabilities
Living conditions & disability survey			
1.Matabeleland	833	5179	870
2.Manicaland	626	3311	665
3.Midlands	484	2970	536
Total	1943	11460	2071
Controls: Living conditions survey			
1.Matabeleland	839	4570	
2.Manicaland	636	3033	
3.Midlands	483	2649	
Total	1958	10252	

5.1 Results from the study on level of living conditions

Mean sizes of households with and without disabled persons are presented in Table 5.2.

Table 5.2 Mean household size

	Disabled	Non-disabled		significance	
Size of household	mean	mean	t	df	p
1.Matabeleland	6.3	5.5	5.82	1632	< 0.001
2.Manicaland	5.3	4.8	3.64	1195	< 0.001
3.Midlands	6.1	5.5	3.53	924	< 0.001
Total	5.9	5.2	7.60	3758	< 0.001

Further analyses revealed that mean sizes in the urban sub-sample were 5.6 (disabled) and 4.9 (non-disabled) ($t = 4.9$, $df = 1053$, $p < .001$), while mean sizes in the rural sub-sample were 6.1 and 5.4 ($t = 6.03$, $df = 2701$, $p < .001$). Rural households are larger than urban households. The urban/rural difference in households was significant both for households without disabled members (mean sizes 4.9 and 5.4) was significant ($t = 4.38$, $df = 1124$, $p < .001$), and for households with disabled members (mean sizes 5.6 and 6.1) ($t = 3.23$, $df = 1153$, $p = .001$).

Irrespective of geographic region or urban/rural localisation households having at least one member with a disability are significantly larger than households without.

Mean ages of permanent family members of households with and without disabled persons are presented in Table 5.3.

Table 5.3 Mean age of household

	Disabled	Non-disabled	significance		
Age in household	mean	mean	t	df	p
1.Matabeleland	27.9	24.4	6.02	1467	< 0.001
2.Manicaland	29.8	24.5	6.54	1092	< 0.001
3.Midlands	27.4	23.0	6.36	871	< 0.001
Urban	28.0	24.0	5.52	869	< 0.001
Rural	28.5	24.1	9.18	2509	< 0.001
Total	28.4	24.1	10.76	3406	< 0.001

The mean age of households with a disabled member is significantly higher than those households without disabilities regardless of geographical region and the urban/rural dimension.

Concerning gender distribution, 51.8 % (N = 5937) of the members in households with disabled people were females, whereas the corresponding figures for the control households was 52.4 % (N = 5368). This difference between the two groups is not statistically significant.

Table 5.4 Gender, household type and Region

	Disabled		Non-disabled	
Gender	% female	N	% female	N
1.Matabeleland	52.2	2701	52.2	2384
2.Manicaland	51.6	1707	53.0	1606
3.Midlands	51.6	1529	52.0	1378
Total	51.8	5937	52.4	5368

Further analyses revealed that number of children under the age of 18 was higher in households with disabled members.

Table 5.5 Mean number of children in household by Household type and Region

	Disabled	Non-disabled	significance		
Children <18 yrs	mean	mean	t	df	p
1.Matabeleland	3.0	2.7	3.3	1623	= 0.002
2.Manicaland	2.6	2.4			N.S.
3.Midlands	3.0	2.8			N.S.
Total	2.9	2.6	3.5	3769	< 0.001

In other words, with respect some important demographic variables there are some similarities and differences between the two types of households. While no significant gender difference was observed in the composition of the households, households with disabled members were, on average, older

than their non-disabled counterparts; as well as larger and with more children under 18 years of age.

5.1.1 Disabled and non-disabled

The controls were not asked about disability. Comparison between disabled and non-disabled individuals is therefore based on the individuals in the households with disabled members, i.e. all together 11 460 individuals.

A total of 2071 persons with disabilities were identified in the 1943 households with disabled members (i.e. 18.1 % of 11460 individuals). By region the breakdown is as follows:

Table 5.6 Distribution of Disabled household members by region

	persons with disabilities identified	in h/holds with disabled members	% disabled	sample population
1.Matabeleland	870	833	16.8	5179
2.Manicaland	665	626	20.1	3311
3.Midlands	536	484	18.0	2970
Total	2071	1943	18.1	11460

Table 5.7 Disability by gender

Gender	Disabled		Non-disabled		Total	
	N	%	N	%	N	%
Female	1013	49.0	4924	52.5	5937	51.8
Male	1055	51.0	4462	47.5	5517	48.2
Total	2068	100.0	9386	100.0	11454	100

A significant gender difference was found in that 49.0 % (n = 1013) of the disabled were females whereas the corresponding figure for the non-disabled was 52.5 % (n = 4924). ($?^2$ = 8.07, df = 1, p < 0.005)

Table 5.8 Disability by gender by region

	Disabled		Non-disabled		
Gender	% female	N	% female	N	significance
1.Matabeleland	48.0	418	53.0	2283	p = 0.008
2.Manicaland	50.1	333	51.9	1374	N.S.
3.Midlands	49.2	262	52.1	1267	N.S.
Total	49.0	1013	52.5	4924	$?^2$=8.07, df=1, p < 0.005

Mean age among the disabled household members was higher than among the non-disabled (43.0 years and 21.2 years, t = 36.89, df = 2481, p < 0.001).

Table 5.9 Disability by age by region

	Disabled		Non-disabled		significance		
Age	mean	N	mean	N	t	df	p
1.Matabeleland	43.0	830	21.7	4149	23.2	1019	< 0.001
2.Manicaland	43.4	634	21.0	2590	20.7	803	< 0.001
3.Midlands	42.5	528	20.7	2388	20.0	658	< 0.001
Total	43.0	1992	21.2	9127	36.89	2481	< 0.001

Further analyses by gender revealed the same pattern. The mean age for women was 45.1 years and 22.6 years in the households with disabled members and the control group respectively (t = 26.28, df = 1190, p < 0.001), and for men the mean ages were 41.1 years and 19.7 years, t = 26.36, df = 1287, p < 0.001).

Furthermore, this pattern was the same in each of the three regions.

Table 5.10 Marital status

Marital status (age >= 15)	Disabled		Non-disabled		Total	
	N	%	N	%	N	%
Never married	440	26.6	2253	46.1	2693	41.2
Married with certificate	244	14.7	491	10.1	735	11.2
Married traditional	495	29.9	1536	31.5	2031	31.1
Consensual union	14	0.8	42	0.9	56	0.9
Divorced/ separated	130	7.9	226	4.6	356	5.4
Widowed	333	20.1	334	6.8	667	10.2
Total	1656	100.0	4882	100.0	6538	100.0

Table 5.10 reveals that there are differences between disabled and non-disabled with respect to marital status. Of the disabled, 26.6 % were never married, whereas this figure for the non-disabled is 46.1 %; and 20.1% of those reporting disabilities were widowed compared to only 6.8% of those non-disabled. Among the disabled 45.2% reported living in union (either married with certificate or traditionally, or in a consensual union) compared to 42.5% for the non-disabled. Identical patterns were observed in each of the 3 regions.

Table 5.11 School attendance

School attendance (age >= 5)	Disabled		Non-disabled		Total	
	N	%	N	%	N	%
Never attended	538	27.9	792	10.1	1330	13.6
Still attending	222	11.5	3215	41.0	3437	35.2
Left school	1165	60.5	3836	48.9	5001	51.2
Total	1925	100.0	7843	100.0	9768	100.0

It is shown here that school attendance is lower among the disabled members of the households as compared to those household members without a disability. ($?^2$ = 783.6, df = 2, p < 0.001). The proportion of those who have never attended school is almost three times as high among the disabled members as compared with the non-disabled (27.9 % versus 10.1 % respectively). Again, this pattern was repeated in each of the three regions.

This finding was again confirmed among females and males separately (34 % of disabled females and 22 % of disabled males never attended school compared with 12 % of non-disabled females and 8 % of non-disabled males).

A separate analysis was carried out to explore whether particular types of disabilities were represented among those

who had not attended school. Among those with a seeing, hearing, communication, intellectual or learning disability (5 years of age or older), 33.8% (or 238 of 704) said that they had never attended school. In contrast, 24.6% (or 181 of 734) individuals who reported a physical disability stated that they had never attended school ($?^2$ = 14.1, df = 1, p = 0.001). (Several reported multiple disabilities, and only the first disability is assessed here.) It appears that individuals with sensory impairments (seeing & hearing) and communication problems are over-represented among those without any formal schooling. For individuals with an impairment that affects the ability to move, the situation is slightly better. These results may indicate that school services are not well adapted to the needs of those who have a sensory impairment.

Table 5.12 School grade completed

Grade completed (age >= 5)	Disabled		Non-disabled		Total	
	N	%	N	%	N	%
7th grade or lower	1006	74.2	4657	66.9	5663	68.1
8th - 12th grade	331	24.4	2251	32.3	2582	31.0
Higher education	19	1.4	56	0.8	75	0.9
Total	1356	100.0	6964	100.0	8320	100.0

Table 5.12 shows further differences (and similarities) between those who have attended school. In the sample of individuals 5

years and older, a larger proportion of those with disabilities is found in the lower grade categories (74 % in 7th grade or lower compared to 67 % among the non-disabled) and fewer among those in grades 8 – 12 (24 % among disabled versus 32 % among the non-disabled) ($?^2$ = 36.3, df = 2, p < 0.001). The proportion of those with higher education is similar in the two groups – though slightly more of those with disabilities had a higher education. Among those with disabilities, Midlands had a slightly higher proportion of those who had completed secondary school – 28% compared to 25% in Matabeleland and 21% in Manicaland. Analysing in both gender and urban/rural subgroups revealed that the above pattern was confirmed but also that it was stronger among women and in the rural sub-sample. That is, fewer women with disabilities than men, and fewer of those living in rural areas had achieved more than grade 7 education.

The most striking difference between the two groups with regards to education refers to the higher proportion of non school-attendees among persons with disabilities.

A further indication of skewed distribution of (educational) resources between disabled and non-disabled were found in that a higher proportion of people with disabilities over 5 years of age has no written language abilities (42 % versus 18 % among the non-disabled population) ($?^2$ = 494.9, df = 1, p < 0.001).

As above, the same pattern was confirmed in a gender analysis, with fewer women with disabilities than men having writing skills. Likewise, those with disabilities and living in rural areas also were more disadvantaged than their urban counterparts.

Table 5.13 Languages

Languages written (age >= 5)	Disabled		Non-disabled		Total	
	N	%	N	%	N	%
None	798	41.5	1401	17.8	2199	22.5
One or more	1124	58.5	6450	82.2	7574	77.5
Total	1922	100.0	7851	100.0	9773	100.0

In Matabeleland and Manicaland the proportion of those with disabilities who could write at least one language was 58% and 55% respectively, whereas the proportion of those with writing skills in Midlands was 64%.

Table 5.14 Unemployment

Work status (age 15 – 65)	Disabled		Non-disabled		Total	
	N	%	N	%	N	%
Currently working	249	20.8	928	20.5	1177	20.5
Returning to work	10	0.8	57	1.3	67	1.2
Not currently working	940	78.4	3549	78.3	4489	78.3
Total	1199	100.0	4534	100.0	5733	100.0

Table 5.14 illustrates the degree of employment/unemployment among persons between the economically active ages of 15 – 65 years. According to the data presented here, it appears that unemployment is currently very high in Zimbabwe: about 78 %. No significant difference was observed among those with disabilities and those without. It is of importance to note that the high unemployment figures reported here may be explained by differences in the questions that are used to elicit data on employment. The results produced here refer to formal employment (with an employer) or contractual employment including seasonal labour and not self-employment or work at home.

Similar patterns of unemployment were observed across all three regions. Unemployment among disabled and non-disabled respectively in Matabeleland was 81% and 79%, in Manicaland 77% and 80% and in Midlands 77% and 75%. The small differences observed here were not significant. Furthermore, when examining men and women separately, no statistically significant differences were observed between disabled and non-disabled. Women, however, were more often unemployed than were men; among those with disabilities: 83% unemployed women versus 74% unemployed men ($?^2$ = 12.1, df = 1, p = 0.001); and among those without disabilities: 83% unemployed women and 72% unemployed men ($?^2$ = 72.6, df = 1, p < 0.001).

SKILLS

It was however shown that among the same group of potentially economically active persons 15 – 65 years of age, 35 % (n = 424) of those with disabilities had acquired some skill, compared to 28 % (n = 1273) of the non-disabled ($?^2$ = 23.3, df = 1, p < 0.001). This is most likely a reflection of what is offered to children/persons with disability, i.e. skills training is (more) common in the special education services for persons with disabilities. The same pattern was observed in all three regions, though only Matabeleland and Midlands were statistically significant. No significant gender differences were observed.

Table 5.15 Skills

Skills (age 15 – 65)	Disabled		Non-disabled		Total	
	N	%	N	%	N	%
Yes, formal	135	11.3	401	8.9	536	9.4
Yes, informal	289	24.1	872	19.3	1161	20.3
No	774	64.6	3246	71.8	4020	70.3
Total	1198	100.0	4519	100.0	5717	100.0

As may be expected, more persons with skills (formally or informally trained) are employed as compared to persons without skills (60 % versus 22 %). Among persons with disabilities, 63% (n = 164) of individuals with skills are employed, as compared to 37% (n = 95) of individuals without skills ($?^2$ = 109.1, df = 1, p < 0.001). In the non-disabled group the figures were, 59% (n = 573) of individuals with skills being employed, as compared to 41% (n = 402) of individuals without skills ($?^2$ = 569.5, df = 1, p < 0.001). Interestingly, a slightly higher proportion of people with disabilities were employed (63%) compared to those without disabilities (59%) (p = 0.024).

Among the 1244 individuals who said they were either currently working or returning to work, 1037 (83.4%) gave their mean monthly salary. While there was an observed difference in mean monthly salary between those with and

without disabilities (disabled: Z$8081, non-disabled: Z$8771), this difference was not statistically significant. Non-significant results were also seen when the data were analysed regionally; though the pattern was somewhat different:

Table 5.16 Monthly salary

	Disabled	Non-disabled	
Mean monthly salary	Z$	Z$	p
1.Matabeleland	6725	6461	N.S.
2.Manicaland	5542	4884	N.S.
3.Midlands	12623	14197	N.S.
Total	8081	8771	N.S.

As may be expected, women's monthly salaries were significantly lower than men's in both groups (disabled and non-disabled) and rural salaries were lower than urban salaries, though not significantly so among those with disabilities. Among those without disabilities the difference was (urban: Z$11305, rural: Z$7425; $p < 0.001$) and among those with disabilities the difference was (urban: Z$9061, rural: Z$7617; ns).

5.1.2 Comparing households

In the preceding section, the grounds for comparison were individuals with and without disabilities in households with a disabled family member. In this section we will look at differences between household units with and without a disabled family member. First we present a regional distribution of households included in the survey.

Table 5.17 Regional distribution of households

Region	Disabled HH		Non-disabled HH		Total	
	N	%	N	%	N	%
Matabeleland	833	42.9	839	42.8	1672	42.9
Manicaland	626	32.2	636	32.5	1262	32.4
Midlands	484	24.9	483	24.7	967	24.8
Total	1943	100.0	1958	100.0	3901	100.0

EMPLOYMENT

Table 5.18 Employment

Is someone in the household working?	Disabled HH		Non-disabled HH		Total	
	N	%	N	%	N	%
No	1065	55.0	973	49.7	2038	52.3
Yes	871	45.0	985	50.3	1856	47.7
Total	1936	100.0	1958	100.0	3894	100.0

Significantly more households with one or more disabled family members have no one employed (55 %) as compared to the non-disabled households (50 %) ($?^2$ = 10.8, df = 1, p = 0.001).

Regionally the pattern was the same. In Matabeleland 54% of households with disabled members had no one working versus 48% in non-disabled households (p = 0.024); in Manicaland the corresponding figures were 58% and 56% (ns); while in Midlands we found 53% of 'disabled' households with no one employed versus 44% of non-disabled households (p = 0.008).

The pattern is consistent in both urban and rural districts: higher unemployment in households that have at least one disabled member. In urban areas the results revealed 43% unemployed in disabled households versus 31% in households

with no disabled member ($p < 0.001$). In rural areas, while the difference was not significant, the unemployment pattern was the same: 60% versus 57% in households with and without a disabled member respectively. (Caution: These figures should not be interpreted as employment rates.)

Income and expenses were measured in Z$ (Zimbabwean Dollars, 1 USD = 57.2 Z$, 01.06.02). Maximum number of possessions was 27.

Table 5.19 Income, expenses and possessions

Household income (month)	N	Weighted mean	N	Weighted mean
Good month		(category)[18]		Z$
Disability survey	1865	6.2	1721	14712
Control group	1889	6.6[†]	1777	14992
Bad month				
Disability survey	1862	4.6	1657	7214
Control group	1885	4.9	1707	7641
Expenses				
Disability survey	1859	7.2	1704	8207
Control group	1886	7.1	1762	8262

continued

[18] Categories (amount in Zimbabwean $): 0 (none) 1 (<= 1000), 2 (1001 – 2000), 3 (2001 – 3000), 4 (3001 - 4000), 5 (4001 – 5000), 6 (5001 – 7500), 7 (7501 – 10000), 8 (10001 – 20000) 9 (> 20000).

[†] $p = 0.032$

continued

Household income (month)	N	Weighted mean	N	Weighted mean
Possessions				
Disability survey	1943	5.8		
Control group	1952	5.7		

Income and expenses were recorded both as exact amounts and in the form of categories (above) for those who did not want to disclose the exact amounts. For the purposes of analysis, exact dollar amounts were re-coded into categories in order to expand the response percent. Results are, however, presented in both forms. Being aware that in many households income may fluctuate seasonally (for example dependent on the sale of farm produce), we asked, in addition, for information to reflect income and expenses during a good month and a bad month. Results are presented for both.

It appears from the results presented in Table 5.19 that households with disabled members have lower (mean) income, less (mean) expenses regardless of seasonal fluctuations than households without disabled members. (Means are weighted by size of households.) With only one exception (see Table 5.19[†]) differences are however not large enough to reach statistical significance. Furthermore households with a disabled family member have, on average, fewer possessions as compared to households without disabled members.

By and large, the same pattern is consistent when the data are analysed regionally.

Table 5.20 Income, expenses and possessions (Regional)

	Disability survey		Control group	
	N	Weighted mean	N	Weighted mean
Household income (month)				
Good month				
Matabeleland	693	6431	718	7257
Manicaland	584	8524	609	7572
Midlands	444	34649	450	35953
Bad month				
Matabeleland	669	3570	689	4390
Manicaland	560	3230	576	3257
Midlands	428	17397	442	17639
Expenses				
Matabeleland	699	4655	718	4581
Manicaland	564	3453	594	3532
Midlands	441	19094	450	19398
Possessions				
Matabeleland	833	6.3	834	6.2
Manicaland	626	4.7	635	4.6
Midlands	484	6.1	483	5.9

In Table 5.20 only exact dollar amount data are presented in order to illustrate the overall differences and similarities between regions.

While all figures are lower for rural areas compared to urban areas (income, expenses and possessions), in urban areas we find that households with a disabled household member have significantly lower income, expenses and fewer possessions than do households without a disabled member. In rural areas however, results indicate that households with a disabled household members have slightly higher (though not significantly) income and expenses than do their counterparts. They also have significantly more possessions on average than control households.

Fewer disabled households stated that salaried work was the primary source of income – 23 % versus 31 % - and this reflects the fact that fewer households with disabled family members had someone working (see above). Other main sources of income did not reveal any appreciable difference between the two types of households: for example, cash cropping 9.8% versus 9.4% and informal business 23.1% and 23.8%. As expected, more disabled households received their family income through pensions of all sorts and 2 %, or 30 households, claimed disability pension as their main source of income. Regional differences mirror the overall picture and reflect to a certain extent the different regional economic infrastructures in Zimbabwe.

Table 5.21 Housing situation

Type of dwelling	Disabled HH		Non-disabled HH		Total	
	N	%	N	%	N	%
Detached house	371	19.1	351	18.0	722	18.6
Semi detached/ townhouse	244	12.6	236	12.1	480	12.4
Apartment/flat	26	1.3	31	1.6	57	1.5
Mobile home	6	0.3	8	0.4	14	0.4
Single quarters	15	0.8	25	1.3	40	1.0
Traditional dwelling/ homestead	1248	64.4	1265	65.0	2513	64.7
Improvised housing unit/shack	22	1.1	17	0.9	39	1.0
Other	6	0.3	12	0.6	18	0.5
Total	1938	100.0	1945	100.0	3883	100.0

Ownership	Disabled HH		Non-disabled HH		Total	
	N	%	N	%	N	%
Rented	149	7.7	182	9.4	331	8.5
Owner occupied, with mortgages	72	3.7	75	3.9	147	3.8
Owner occupied, without mortgage	1451	74.9	1402	72.1	2853	73.5
Rent free, not owner occupied	50	2.6	49	2.5	99	2.6
Provided by employer (gov't)	11	0.6	20	1.0	31	0.8
Provided by employer (private)	146	7.5	160	8.2	306	7.9
Other	58	3.0	56	2.8	114	2.9
Total	1937	100.0	1944	100.0	3881	100.0

It is shown in Table 5.21 that there are hardly any differences between the two types of households when it comes to type of

dwelling. Differences observed are artefacts of the regional distribution of households in the survey with the majority of households surveyed being located in rural districts and thus the predominance of traditional dwellings and homesteads. Detached housing is the most common in urban areas.

With respect to *standard* in terms of type of dwelling and housing ownership, there appears to be a relatively even distribution between the disabled and non-disabled with only small differences differentiating the groups.

Five questions asked specifically about different aspects of housing infrastructure. These were: main source of water, energy source for cooking, energy source for lighting, type of toilet used by the household, and method of refuse/rubbish removal. Each of these five questions had different response categories, for example, for possible energy sources for cooking could be categorised as:

electricity
solar
paraffin/gas
wood/charcoal/coal
candles
dung/grass etc.
none

Individual variables were ranked according to degree of hygiene or level of technical implementation (from best to worst). A composite score was devised by adding the above 5 elements into a scale to define housing standard with a possible range from 5 (best standard) to 39 (worst standard).

For the 3864 (99 %) of households that had data recorded for all 5 variables the range was from 5 to 33, mean 18.4 (SD 7.1). Standards, as defined above, were significantly higher in Matabeleland (mean 16.7) than in either Manicaland (mean 19.8) or Midlands (mean 19.6) ($F = 88.1$, $df = 2/3861$, $p < 0.001$). The mean difference between households with a disabled and those without was 18.4 and 18.5 respectively (n.s.), indicating that, with respect to the five indices included, households with disabled family members, on average, did not have a lower standard than did households without a disabled family member.

The same pattern of difference between the two types of households was found in both urban and rural areas. The mean housing standard scores were 10.8 and 11.2 in the urban sub-sample and 21.4 and 21.2 in rural households (control and disabled households respectively; differences not significant), this also reveals the well-known and large differences in standard of housing and infra structure between urban and rural areas.

Another indication of household standard may be derived from availability and access to different forms of communication and information. The questionnaire requested data on the availability of telephone, radio, television, Internet, banking facilities, newspaper and post office. These were all coded as:

own/use regularly

have access to

have no access to

Again, a composite score was devised by adding the above 7 elements into a scale to define standard with respect to information access. This scale had a possible range from 7 (full access/availability) to 21 (no access/availability). For the 3274 (84 %) of households that had data recorded for all 7 variables, the range was 7 to 21, mean 16.2 (SD 2.9).

Access to information, as defined above, was significantly higher in Midlands (mean 15.9) than in either Matabeleland (mean 16.2) or Manicaland (mean 16.3) ($F = 4.37$, $df = 2/3271$, $p = 0.013$). The mean difference between households with a disabled and those without was 16.3 and 16.0 respectively ($p = 0.005$) indicating that, with respect to the seven information elements included, households with disabled family members, on average, had less access to information than did households without a disabled family member.

5.2 Disability study

Of the 2071 individuals identified as having a disability during the first phase of the survey (Levels of living conditions), a total of 1972 (95.2%) responded to the detailed disability survey. In 54 % of the cases the person with the disability responded themselves, whereas proxy reporters answered in the remaining 46 %.

Table 5.22 Age profile of person with disability

Age group in years	Male		Female		Total	
	n	%	n	%	n	%
0-5	44	4.5	35	3.8	79	4.2
6-10	53	5.4	48	5.2	101	5.3
11-20	166	17.0	128	13.8	294	15.5
21-30	109	11.2	98	10.6	207	10.9
31-40	125	12.8	97	10.5	222	11.7
41-50	113	11.6	113	12.2	226	11.9
51-60	109	11.2	110	11.9	219	11.5
61+	255	26.2	297	32.1	552	29.1
Total	974	100.0	926	100.0	1900	100.0

The age range for the group of disabled was from 0 to 98 years. Mean age was 43.2 years (males: 41.4 years, females: 45.2 years), and median age was 43 years. Gender distribution in this sub-sample was 51 % men and 49 % women. There are significantly more women in the older age groups and slightly more men in the younger age groups ($t = -3.29$, $df = 1898$, $p = 0.001$). No significant age or gender differences were observed among the three regions sampled.

Table 5.23 Distribution of the type of main disability by gender

Type of disability	Male		Female		Total	
	n	%	n	%	n	%
Sensory	308	30.7	318	32.9	626	31.8
Intellectual/ emotional	126	12.5	93	9.6	219	11.1
Physical	455	45.3	449	46.4	904	45.9
Other	115	11.5	107	11.1	222	11.3
Total	1004	100.0	967	100.0	1971	100.0

Respondents were asked to describe their disability in their own words, and the major disability described was coded. Just over 45 % of coded disabilities were classified as physical. These include minor and major physical disabilities (including paralysis) and 32 % reported sensory impairments (seeing, hearing and communication). Intellectual disabilities, learning disorders, and emotional disabilities accounted for 11 % of reported disabilities. No significant gender difference was observed.

By and large, the same pattern is repeated in the three regions with minor variations: females reported slightly more sensory disabilities and fewer intellectual/emotional disabilities in all three regions. Interestingly a male dominance of physical disabilities was only demonstrated in Midlands. In the other two regions females had slightly more physical disabilities. No significant gender differences were observed regionally.

Table 5.24 Cause of disability

Cause of disability	n	%
Illness, disease, infection	312	23.3
Injury, accident	224	16.7
Congenital	167	12.5
Witchcraft	133	9.9
Old age	129	9.6
Other causes	96	7.2
Birth related (child)	47	3.5
Natural	38	2.8
Violence (war)	37	2.8
Violence (domestic)	36	2.7
Stroke/CVA	32	2.4
Burns	31	2.3
Medical (amputations)	24	1.8
Psychological (stress)	16	1.2
Bites (snake etc.)	10	0.7
Asthma/allergy	7	0.5
Total	1339	100.0
Missing	633	
Total	1972	

When asked about the type and cause of the disability, the respondent's own opinion was recorded. No attempt was made to acquire a medical verification of either type or cause of disability. Table 5.24 shows that the main recorded causes of disability are: illness, disease, infection (23.3 %), accidents (16.7 %) and congenital (12.5 %). Of interest is the fourth largest category on the list: 10 % reported that witchcraft was the cause of their disability. Small regional variations do exist, though the overall pattern is consistent. This distribution corresponds approximately to the results from the disability study conducted in South Africa (Schneider et al., 1999).

Table 5.25 Age of onset of disability

	n	%
From birth	359	19.5
1-5	325	17.6
6-10	116	6.3
11-20	175	9.5
21-30	150	8.1
31-40	168	9.1
41-50	130	7.1
51-60	140	7.6
61+	280	15.2
Total	1843	100.0
Missing	129	
Total	1972	

Apart from the 359 individuals (19.5 %) who here reported age of onset as birth, 616 or 33.4 % were disabled as children or young adults (age less than or equal to 20 years). 17.6 % claimed that they had acquired their disability between birth and the age of 6. (Caution: numbers in the preceding two tables differ slightly with respect to congenital disabilities - “from birth” - due to differences in coding of questions and subjective interpretations.)

An attempt was made to record a respondent’s awareness of the different services that are currently available in the country and at the same time determine whether they are in need of these same services and if they had received them.

Table 5.26 Which of the services, if any, are you aware of and have ever needed/received?

Type of service	aware of service		need service		received service	
	n	%*	n	%*	n	%**
Health services	1885	95.6	1847	93.7	1699	92.0
Traditional healer	1603	81.3	964	48.9	869	90.1
Medical rehabilitation	1164	59.0	1344	68.2	737	54.8
Counselling for parent/family	762	38.6	971	49.2	441	45.4
Educational services	996	50.5	855	43.4	438	51.2
Counselling for disabled	793	40.2	1027	52.1	419	40.8
Assistive device services	1102	55.9	1116	56.6	408	36.6
Welfare services	1523	77.2	1498	76.0	354	23.6
Vocational training	884	44.8	811	41.1	184	22.7

* percentage of total number disabled (n = 1972)

** percentage of those claiming they needed the service

With the exception of counselling services (both for parents/family and for the disabled themselves) and vocational training, at least half (50 %) of the sample were aware of the existence of the services. The expressed need for services was in many cases of almost the same magnitude as their awareness; however, fewer expressed a need for traditional healers (awareness:need = 81%:49%) and more expressed a need for counselling services for the person with a disability

(awareness:need = 40%:52%) and counselling services for parents/family (awareness:need = 39%:49%) (i.e. even though someone was not aware that the service was available they had expressed a need for it.) The relatively low expressed need for traditional healer may indicate that in this particular setting, modern medical and health services are more in demand. As expected, both awareness and need for a traditional healer was higher among rural inhabitants – 84% of those in rural settings were aware of traditional healers compared to 74% in urban settings (χ^2 = 26.1, df = 1, p < 0.001). Also, among rural dwellers, 52% expressed a need for these services compared to 41% of those living in urban environments (χ^2 = 17.3, df = 1, p < 0.001).

More strikingly however, was the gap observed between the expressed need for services and the actual acquisition of that service. For each of the services listed in the table, fewer actually received it than had expressed a need for it. Among the most noticeable shortcomings were, for example, vocational training and welfare services – only 22.7 % and 23.6 % of those who expressed a need for these services had actually received them. Assistive device services and counselling services for both individuals with disabilities and their families were received by less than 50 % of those who needed them. On a brighter note, over 90 % of those who expressed a need for health services had in fact received them – something that indicates that if priorities are made they can be met.

Most of the persons with disabilities surveyed expressed a need for some service. Only 23 individuals (1.2%) expressed no need for any of the services listed (or other services not listed). Overall, 73.9 % or almost three-quarters of those expressed a need for some service did in fact not receive that service.

Among those who responded when asked to assess the services they had received in the past, half (50.5%) claimed that services were too expensive and one-third (33.2%) said that the service was inaccessible (too far/no transport). An equal proportion claimed that the service was not helping anymore, they had not improved, or that they were not satisfied with the service provided. A few respondents pointed to a communication barrier or language problem between the users and provider of the service or that the service was no longer available and only 15.5 % had actually reached the level of functioning they had set as a goal and no longer needed the service.

EDUCATION

Of those sampled 46.5 % (n = 917) were disabled before 18 years of age. These were asked about their education and schooling experiences. Table 5.27 on the following page shows the different types of schools attended by those eligible for school according to age. For those who attended school, the majority went to mainstream or regular school. Of particular note is the relatively high proportion (29%) of those who did

not attend primary school, though eligible (according to age). As might be expected, school attendance declines with age and this is confirmed in that 75.2 % of disabled children 15 years and over, (i.e. eligible for high school) did not attend, and 91 % of those over 17 did not attend vocational school.

Table 5.27 Type of school attended

What type of school do, or did, you mainly attend?

	Mainstream/ regular school		Special school		Special class in regular school		Did not go to school (NA)		TOTAL
	n	%	n	%	n	%	n	%	N
Pre-school/early childhood (all ages)	178	19.4	23	2.5	11	1.2	705	76.9	917
Primary school (age >= 5 years)	520	61.1	54	6.3	30	3.5	247	29.0	851
High school (age >= 15 years)	135	22.1	11	1.8	6	1.0	460	75.2	612
Vocational training (age >= 18 years)	20	3.7	24	4.5	4	0.7	486	91.0	534

While few actually reported being refused entry to a regular or special school because of their disability it is worth noting that 10 individuals (1%) were refused regular pre-school, 81 individuals (9%) were refused regular primary school and 14 (2%) were refused regular high school. Nine individuals (1%) were refused entry into a special class or school because of their disability.

EMPLOYMENT

Asked whether they were currently working or returning to work, those 15 years and older replied: 294 (18.5 %) currently working or returning to work, 1291 (81.4 %) not working with the majority of these (785) never having been previously employed. Among those currently employed the list of job types is long. The majority of those who had jobs were employed under the broad category of farming and farm related activities (n=72, 25 %) or as domestic and related helpers/cleaners - including housewives (n=67, 23 %). Other types of employment including clerks, typists, managers, computer operators, teachers, soldiers and self-employed were however also represented.

ACCESSIBILITY

Accessibility at home is shown in Table 5.28, for the urban and rural sub-samples separately. Differences in housing standard are found in that fewer rural households have separate living room, dining room and in particular toilet facilities (see column

“have none”). This reflects that traditional housing is common in the rural areas. It is however interesting that among those who report that their home have the different types of rooms/facilities, accessibility problems seem to be on the same level in the two sub-populations. Approximately 10 % of those surveyed stated that they did not have access to one or more rooms in their homes. One in four of the rural households do not have a separate toilet, while this figure is only about 5% in urban areas. In urban areas, approximately 30 % do not have a separate dining room, while this figure increases to almost half in rural areas.

Table 5.28 Accessibility at home

		Accessible		Not accessible		Have none		Total
Room/facility		n	%	n	%	n	%	n
Kitchen	urban	502	91.3	40	7.3	8	1.5	550
	rural	1314	93.9	67	4.8	19	1.4	1400
	Total	1816	93.1	107	5.5	27	1.4	1950
Bedroom	urban	506	92.0	35	6.4	9	1.6	550
	rural	1304	93.1	54	3.9	42	3.0	1400
	Total	1810	92.8	89	4.6	51	2.6	1950
Living room	urban	377	68.7	31	5.6	141	25.7	549
	rural	699	50.0	43	3.1	656	46.9	1398
	Total	1076	55.3	74	3.8	797	40.9	1947
Dining room	urban	362	65.9	32	5.8	155	28.2	549
	rural	699	50.0	40	2.9	659	47.1	1398
	Total	1061	54.5	72	3.7	814	41.8	1947
Toilet	urban	468	85.1	55	10.0	27	4.9	550
	rural	951	68.1	89	6.4	356	25.5	1396
	Total	1419	72.9	144	7.4	383	19.7	1946

Table 5.29 Accessibility from home

	Accessible		Not accessible		Never go		None available		Total
	n	%	n	%	n	%	n	%	N
Health care clinic	1688	87.2	124	6.4	98	5.1	26	1.3	1936
Hospital	1593	82.1	166	8.6	128	6.6	53	2.7	1940
Public transport	1527	79.1	215	11.1	162	8.4	26	1.3	1930
Shops	1413	72.5	160	8.2	364	18.7	13	0.7	1950
Place of worship	1345	69.3	144	7.4	425	21.9	26	1.3	1940
Post office	899	46.6	145	7.5	742	38.5	143	7.4	1929
Police station	806	41.6	157	8.1	856	44.2	117	6.0	1936
Sports facilities	743	38.6	86	4.4	971	49.2	125	6.5	1925
School	750	38.9	90	4.7	1032	53.6	54	2.8	1926
Bank	597	31.0	112	5.8	961	49.9	254	13.2	1924
Recreational facilities	527	27.3	77	4.0	1081	56.1	242	12.6	1927
Magistrates office	532	27.5	143	7.4	1004	51.9	255	13.2	1934
Workplace	357	18.7	48	2.5	1242	65.2	258	13.5	1905
Hotels	186	10.0	35	1.9	1085	58.1	563	30.1	1869

Primary health care clinics and hospitals are among the most accessible facilities a person may need to visit, with over 80 % of respondents stating that these facilities are accessible. It seems unfortunate that schools find a place lower on the list (about 40% classify schools as accessible) and workplaces fare even poorer (less than 20 % state that the workplace is accessible).

AIDES AND ASSISTIVE DEVICES

When asked whether the person used any medication (including traditional medicine) for pain that was caused by the disability, 34.6 % of those who replied (680 of 1963) answered yes. These were most often tablets for pain relief, traditional herbs or eye drops, though there were almost 100 different medications listed.

Respondents were also asked if they used assistive devices – 506 (25.8 %) responded “yes”. More than one type of device could be registered. No gender differences were apparent with respect to use of assistive devices, approximately 25% of women and men with disabilities used assistive devises. However, significantly more urban dwellers used assistive technology (of all types) than did those in rural areas: 35 % and 22 % respectively ($\chi^2 = 34.0$, df = 1, $p < 0.001$).

Table 5.30 Type of assistive devices in use

Type of device	Examples	n	% (of those who use devices n=506)
Personal mobility	Wheelchairs, crutches, walking sticks, white cane, guide dog, standing frame	406	80.2
Information	Eye glasses, hearing aids, magnifying glass, enlarge print, Braille	86	17.0
Personal care & protection	Special fasteners, bath & shower seats, toilet seat raiser, commode chairs, safety rails, eating aids	11	2.2
Communication	Sign language interpreter, fax, TTY, portable writer, PC	9	1.8
For handling products and goods	Gripping tongs, aids for opening containers, tools for gardening	4	0.8
Household items	Flashing light on doorbell, amplified telephone, vibrating alarm clock	1	0.2
Computer assistive technology	Keyboard for the blind	0	0.0

Asked whether their device was in good working condition 75 % answered “yes” (no significant urban/rural or gender differences). Overall, almost two-thirds (63.1 %) had received at least some guidance on usage of the device – but 180 (36.9

%) had not received any instructions or guidance on use of assistive technology. Significantly fewer disabled in rural areas had received such guidance, 57% versus 73% in urban areas (χ^2 = 12.8, df = 1, p < 0.001).

With the exception of personal mobility devices, instructions for use, or guidance, was received by over 80% of users. Among users of personal mobility devices, 56% had received at least some guidance and 44% had not received any assistance at all.

28 % acquired their device from government health services, 8% through NGOs, 31 % privately and the rest through other sources. Finally, asked who maintains or repairs the device, over a third (36.3%) replied that they took responsibility for the device themselves, 14% stated that the government undertook maintenance and reparations, while 21 % relied on their families for support in these matters and 14 % claimed that their device either were not maintained or that they couldn't afford maintenance/repairs.

DISABILITY AND OTHER GRANTS

Only 1 of every 8 respondents (242, or 12.3%) was currently receiving financial assistance through a disability grant or pension. An additional 348 (17.6 %) had applied but were not

currently receiving any assistance (41 % awaiting reply; 15 % rejected; 11 % approved, awaiting funds).

Table 5.31 Type of grant or pension (n = 242)

Type of grant or pension	n	%
Disability grant from Department of Welfare 18 years and older)	96	39.7
Care dependency grant from Department of Welfare (0-17 years)	14	5.8
Grant in aid from Department of Welfare	32	13.2
Workman's Compensation	18	7.4
Private insurance/pension	4	1.7
Old age pension (over 60/65 years women/men)	43	17.8
Other	41	16.9

The majority of all grants were in the range 200 to 3000 Z$ per month (mean Z$ 1738). Most of the monies received through grants went towards household necessities (including food) and clothing. Rent and education were the other main items listed as targets for these grants. The remainder of the monies being divided among transport, rehabilitation & health care services, personal assistant, and recreation.

In most cases (80 %) it is the person with disabilities him/herself (alone or in agreement with their partner) who decides how these monies are spent. Taking into consideration the type of disability (individuals with mental impairments make up 8.4% of grant receivers) and age of the person disabled (children less than 18 years of age make up 9% of grant receivers) it is not unreasonable that in as many as 20 % of cases someone other that the person with disability is responsible for deciding how the grant monies are spent

Table 5.32 Assistance needed in daily life activities (N = 1972)

	Yes		Sometimes		combined	% responding yes/sometimes			
Do you need help with	n	%	n	%	%	urban	rural	male	female
emotional support	1090	55.3	448	22.7	78.0	86.5	75.7	77.6	80.1
finances	859	43.6	267	13.5	57.1	57.7	57.4	54.1	60.9
studying*	184	36.4	59	11.7	48.1	46.3	52.3	47.9	51.8
shopping	667	33.8	259	13.1	46.9	55.4	44.0	44.3	50.2
cooking	742	37.6	211	10.7	48.3	56.9	45.2	49.0	48.0
transport	571	29.0	245	12.4	41.4	48.0	39.2	37.6	45.9
moving around	254	12.9	247	12.5	25.4	30.2	23.8	23.8	27.5
dressing	215	10.9	107	5.4	16.3	21.1	14.5	16.9	15.9
bathing	264	13.4	136	6.9	20.3	23.1	19.3	21.1	19.6
toileting	171	8.7	63	3.2	11.9	15.3	10.6	11.9	11.9
feeding	97	4.9	35	1.8	6.7	8.7	5.9	7.2	6.3

*N = 506 Those who answered ”not applicable” excluded.

The results presented in the table above are obviously dependent on numerous factors; among them urbanicity, the sex and age of the person with disabilities and the severity of the disability. With one exception, these figures are based on the entire sample of 1972 people with disabilities. Help with studying was perhaps the most age dependent – and approximately 75 % of the sample said that this was not applicable. This question was therefore based on those who responded yes, yes sometimes or no (n = 506).

We chose to examine the difference in needs based on the urban/rural and male/female axes and determine whether these dependencies impacted on perceived needs for assistance. With the exception of “studying” more help was needed for all activities in urban areas. Among the largest recorded differences were: more help needed in urban areas for shopping, cooking, moving around and emotional support. The results may reflect the difference between complexity associated with urban dwelling as opposed to rural life.

In general, with respect to gender there do not appear to be any differences that stand out for one sex over the other. In typically male dominated societies one may expect men to need more help with what may be considered as female chores such as shopping or cooking while women would need more help with finances or require more emotional support. The

small differences observed in the data were, however, non-significant.

Table 5.33 Involvement in family life

Involvement in family life	N	% yes	% sometimes	% no
Do you go with the family to events?	1878	80	9	11
Do you feel involved and part of the family?	1828	92	4	4
Does the family involve you in conversations?	1887	91	4	5
Does the family help you with daily activities?	1851	66	27	7
…for those over 15 years				
Are you consulted about making household decisions?	1577	81	8	11
Do you make important decisions about your life?	1641	65	9	26
Are you married or involved in a relationship?	1627	49		51
Does your spouse/partner have a disability?	814	18		82
Do you have children?	1640	73		27

While the majority of those questioned were involved at least sometimes in different aspects of family life, it is worth noting that as many as 11 % are not included in family events, 5 % are not involved in conversations and 4 % do not feel a part of the family. Furthermore, of those 15 years and older, 11 % are not consulted about making household decisions and 26 % are not part of the decision-making process concerning their own lives. Certain of these findings may be related to the type or severity of the disability in question, but it is, nonetheless, worth noting the results. Only one gender difference appeared when assessing the role of the individual in the household and family life. While women and men are to equal degrees consulted about making household decisions, women, to a lesser degree than men (70% versus 80%), make important decisions about their own lives ($\chi^2 = 23.4$, df = 1, $p < .001$). There were no other significant gender differences with respect to involvement and integration in family life.

DEFINING SEVERITY – Measures of Activity limitations and Participation restrictions

Much information has been collected during the survey that could be used to define the severity of a person's disability. We have seen so far an assessment of an individual's needs for services, and activities that a person may need help in accomplishing in everyday life (see Table 5.26 – need for services and Table 5.32 – need for assistance). Simple scores

can be constructed to summate need for services and the total need for daily life assistance.

In addition, we constructed a matrix to map an individual's activity limitations and participation restrictions according to different parameters or domains: sensory experiences, basic learning and applying knowledge, communication, mobility, self care, domestic life, interpersonal behaviours, major life areas and community, social and civic life. (The complete matrix is shown in Appendix 2). For each item or activity under these 9 parameters the degree to which an individual was capable of carrying out the activity (perceived activity limitation) was recorded: on a scale from (0) no difficulty to (4) unable to carry out the activity. In the same manner the person's performance in their current environment (perceived degree of participation restriction) was recorded: on a scale from (0) no problem to (4) unable to perform the activity. Based on recorded observations for each of the 47 items under the 9 domains a single activity limitation score and participation restriction score was developed – as well as 9 sub-scales for each of the domains.

These 13 scales were then assessed by type of disability

Table 5.34 Mean scores on severity scales by type of disability.

Severity scales	Type of disability: seeing, hearing, communi-cation	mental/ emotional	physical/ mobility	other
N	627	219	904	222
Daily activity help score	3.6	4.2	3.5	3.9
Service needs score	5.2	5.3	5.4	5.4
Activity score	18.4	34.0	18.9	18.5
Participation score	18.4	34.0	18.9	18.5
Community & social life	1.2	3.4	1.1	1.4
Learning & knowledge	3.1	7.4	1.4	2.8
Mobility	3.3	2.1	9.3	5.2
Self care	0.9	3.6	1.7	1.9
Domestic life	3.0	5.1	3.0	2.9
Interpersonal behaviours	1.4	6.3	0.7	1.3
Sensory experiences	2.5	0.3	0.4	0.5
Communication	1.9	2.9	0.6	1.0
Major life areas	1.2	2.7	0.7	1.5

Looking first at the score based on assistance required for daily activities, while it appears that there is little variation in mean scores based on type of disability, the observed differences are not insignificant ($F = 4.4$, $df = 3/1962$, $p = 0.004$). In particular, the mean score for mental/emotional disabilities is significantly higher than for seeing/hearing/ communication and physical disabilities. No significant differences were observed in the score based on service needs.

An urban/rural analysis revealed higher scores on activity limitations and participation restrictions in the urban sub-sample for all types of disabilities. This may indicate a more problematic daily life compounded by the complexity associated with urbanity that thus results in a higher degree of activity limitation and lesser degree of participation for people with certain disabilities in urban areas.

Furthermore, the results of the analysis of variance in Table 5.34 showed that both the activity limitation score and the participation restriction score behaved similarly with respect to type of disability ($F = 30.3$, $df = 3/1968$, $p < 0.001$). Mean scores for mental/emotional were, on both scales, significantly higher than scores for all other types of disabilities. Generally speaking this indicates that individuals with mental/emotional disabilities experience significantly more barriers to full participation in society. (The 9 individual elements of the activity limitation scale are presented in the table for information and will not be further commented on here.)

A breakdown of the comparison by gender, urban/rural and region is presented in Table 5.35. Analyses revealed marginal and non-significant gender differences in severity. Severity scores among urban dwellers were, with the exception of the scale based on services needed, significantly higher than scores from rural dwellers. Regional differences were also more pronounced with significantly higher scores on almost all

scales registered for Matabeleland (exception: service needs score). Scores from those in Midlands were slightly higher than those from Manicaland, but these only reached significance for activities and participation.

Table 5.35 Mean scores on severity scales by gender and region.

Severity scales	Gender			Urban	Rural		Region			
	Male	Female					Matab-eleland	Manica-land	Midlands	
Count	1004	967		559	1412		836	638	498	
daily activity help score	3.6	3.8	ns	4.2	3.5	<0.001	4.2	3.1	3.5	F = 37.9, p < 0.001
service needs score	5.4	5.2	ns	5.2	5.3	ns	4.8	5.4	6.0	F = 38.4, p < 0.001
activity score	20.0	20.7	ns	27.5	17.5	<0.001	27.6	13.8	16.6	F = 80.9, p < 0.001
participation score	20.0	20.8	ns	27.6	17.5	<0.001	27.6	13.8	16.6	F = 81.3, p < 0.001

Four of the severity scores were then assessed with respect to certain indicators of living conditions. We looked at school attendance (re-coded: yes = still attending/left school, and no = never attended) and work situation (re-coded: yes = currently working or returning, and no = unemployed). Mean scores based on assistance required for daily activities, activity limitation and participation restriction, all showed that those unemployed or who never had attended school scored higher (need more services, and experience more activity limitations and restrictions to full participation in society). Interestingly, mean scores based on needs for services were significantly higher among both the groups currently attending school and employed. This finding may be explained by the simple fact that those who are more active in society, either through employment or education, meet more obstacles and have more requirements for services than those who do not. Results are presented in the following table.

Table 5.36 Mean severity scores on severity scales by indicators of living conditions.

School attendance (age >= 5)	never attended n = 519		currently attending or finished n = 1322			
	mean	SD	mean	SD	t	p
Daily activity help score	4.2	2.8	3.3	2.4	6.6	<0.001
Service needs score	5.0	2.4	5.5	2.4	-3.6	<0.001
Activity score	25.9	28.1	17.8	19.7	6.0	<0.001
Participation score	25.8	28.2	17.8	19.8	5.9	<0.001

Work situation (age >= 15)	unemployed n = 1302		currently working n = 276			
	mean	SD	mean	SD	t	p
Daily activity help score	3.7	2.5	2.0	2.0	12.3	<0.001
Service needs score	5.2	2.4	5.7	2.5	-3.4	=0.001
Activity score	21.1	22.8	10.2	10.1	12.5	<0.001
Participation score	21.1	22.9	10.2	10.2	12.3	<0.001

In other words certain indicators of living conditions seem to be associated with these measures of disability severity, in particular activity limitations and participation restrictions.

6 Discussion

A baseline for data on living conditions among people with activity limitations and restrictions in social participation in Zimbabwe has been established with the finalization of this study. In addition to establishing a foundation or framework for depicting current living conditions, this study also offers the opportunity for both monitoring the situation over time and assessing the impact of policies through later studies. Furthermore, a unique database has been created allowing for the comparison of living conditions between people with and without disabilities and between households with and without disabled members. Finally, this study adds to a growing body of information on living conditions among people with disabilities currently being collected in the southern African region. In the future, with data from Namibia (2002), Malawi (2004) and Zambia (planned in 2006) there will be possibilities not only for making national or regional comparisons but to share experiences and build capacity in the region to improve living conditions in general and specifically among people with disabilities. Due to different contexts, timeframes and other factors, it is however not the absolute figures that are of interest for the comparison, but rather patterns in the data material.

In this study of living conditions among people with disabilities in Zimbabwe, it was determined that the results obtained should be compared to living conditions in the general population. To this end, a control sample was selected from among the non-disabled population. Since no earlier studies of living standards have been carried out in Zimbabwe, in addition to addressing the situation of people with disabilities, this study also provides a first set of data on living conditions that may be useful for monitoring the general standard of living in the country. This is evidently of interest in a situation where the Zimbabwean GNP is shrinking and the economic downturn affects everyone. It is also necessary to take into consideration exactly how this rapid downturn may affect the data in the form of introducing a time bias. As the three data collections were conducted over a time span of one and a half years, one may expect that the last data collection (in Midlands) reflects a larger impact of current economic conditions than the previous two (Matabeleland and Manicaland). An indication of this effect is the marked difference in the amounts reported as income and expenses between Midlands and the other two regions. It is not possible, however, to attribute any rapid reduction in level of living on the basis of these figures. Although inflation has been extremely high, without doubt affecting the purchasing power in the population, assessment is extremely difficult due to the lack of reliable economic indicators. Concerning infrastructure (schools, health services, etc.), expected changes will take longer to be measurable.

Socio-demographic differences between the two types of households (those with and without disabled members) were similar in the Zimbabwe and Namibia studies. Households with disabled members are larger, mean age of family members is higher, as is the number of children. This may be the result of certain strategies in the households to cope with the situations they encounter. As there are few, if any, services to support families and individuals with disabilities living at home; practical, economic and other problems will have to be solved within the household. Further studies are however necessary to reveal coping mechanisms at the household level.

It is a main finding that households with disabled members and individuals with disabilities score lower on a number of indicators on level of living conditions as compared to households without disabled members or non-disabled individuals. The study thus confirms what was previously expected. Largely, the observed differences in levels of living conditions in the data material from Zimbabwe substantiate the pattern that was first observed in the Namibian study. It is however also the case that the differences in levels of living conditions were not as pronounced in the Zimbabwean data material as were found in Namibia. For instance, with respect to the economic comparisons (income, expenses, and possessions) it was found that, contrary to the Namibian results, the differences between households in Zimbabwe were hardly strong enough to produce statistical significance. As

shown above, this is valid only for the rural sub-sample, as expected differences were found among urban households.

The disability component of the survey revealed a relatively even distribution of disabled across age categories. This is very similar to the pattern in Namibia, but deviates from the situation in more developed countries where age is closely and positively associated with disability. This could be due entirely to the particular age profile in Zimbabwe with large proportion of the population being 20 years or less. Bearing in mind however that onset of disability for many of those surveyed is early in life, and that the causes of disability to a large extent are birth- or illness related, the results presented here indicate that age plays a less significant role as cause of disability. Also, the information gathered through this survey is self-reported, and it is not unlikely that responses are influenced by the prevailing understanding of disability and activity limitations and that functional problems related to “normal” ageing are not included in most peoples’ conception of disability.

The age profile in the data material implies that disabilities that are to a large extent prevented in more developed countries (through peri-natal and neo-natal health services) are not prevented in Zimbabwe (or Namibia). This should be seen as a serious challenge to the health services in these two countries, and in less developed countries generally.

Somewhat surprising, it was found that need for emotional support surpassed economic support when asking for what type of assistance that was needed in daily life. This is important to bear in mind when developing services for people with disabilities, as emotional needs easily will be put in the background when there is so much to do with regards to practical help. Developing mental health support programs at the local community is a relevant idea in this regard.

With regards to role in the household results indicate that the large majority of individuals with disabilities is not much affected by their disability status. Although further studies will be needed to confirm this, the results here may at least be taken as an indication of positive attitudes towards disabled individuals within their families.

It appears from the study that services (schools, devices, etc.) have what may be termed a “physical disability bias” in that people with sensory or intellectual impairments are worse off on some important indicators. This information should be of importance in the planning of future services for people with disabilities in Zimbabwe.

Large gaps were observed in the provision of particular services like vocational training, welfare services, assistive devices and counseling. These four services also scored lowest in the Namibian study, although the rank order differs

somewhat. These figures express, to a degree, the frustration of people with disabilities in the community as well as an opportunity for service providers to improve services and accessibility, and not in the least to policy makers to review priorities in the area of service provision. Health services, on the other hand, are apparently available to the large majority of those with disabilities. With respect to the previous comment on health services, this may be an indication that the problem is not availability (quantity) but rather the type or quality of health service offered.

Of particular note is the proportion of individuals with activity limitations who, though eligible, did not attend primary school. It is a situation worthy of attention that more than one fourth of those surveyed never attended school, and the results clearly indicate that those with disabilities are worse off than non-disabled. A comparison of language abilities amplifies this imbalance. The study thus indicates that access to education is restricted for many individuals with disabilities. As mentioned above, this is particularly a problem for those with sensory impairments. This information is potentially useful information in planning future educational services.

Interestingly, the proportion of those not attending school in Zimbabwe is much lower than that reported from the Namibian study. It is known that the disability movement in Zimbabwe is and has been strong, and that specialized services for

individuals with disabilities, in particular employment opportunities in sheltered workshops, have existed since 1950's (Devlieger, 1995; 1998). The fact that more disabled in Zimbabwe had acquired some skill (either formal or informal) may reflect this. Save the last few years of economic downturn in the country, there are thus good reasons to assume that the situation for people with disabilities in Zimbabwe could be somewhat better than in some of the neighboring countries.

The results presented indicate that the level of employment/unemployment does not differ significantly between individuals with disabilities and those without in Zimbabwe. As this is an important indicator of living conditions, and since the Namibian study produced an expected difference, the results in Zimbabwe were somewhat surprising. However, it is important to add that a similar comparison at the household level produced a difference as expected. These results may indicate that having a disabled member affects job opportunities also for non-disabled in a household, demonstrating that the practical solution to higher care duties is individualized and affects the level of living of the household.

The study has documented that the same pattern of differences between those with and without disabilities is found among both men and women. It has however also been demonstrated that women score lower on many of the

important indicators of level of living conditions. There are also socio-demographic gender differences that indicate the need for a gender perspective on disability policy in the country.

The urban/rural differences are systematic with higher levels of living conditions in urban areas. This is as expected and reflects the strong differences between urban and rural areas Zimbabwe, as in low-income countries generally. The urban/ rural dimension is among the most pronounced in producing differences in living conditions and will clearly need to be considered and included when developing measures for improvement of the situation for people with disabilities in Zimbabwe.

The research presented in this report offers new insight into the disablement process in the form of a newly conceived matrix based on activity limitations and restrictions in social participation. These constructs are in their developmental infancy; however, they offer a broader conceptualization of disability, beyond the dated definition based on physical impairments. By categorizing an individual's capability to accomplish daily activity tasks without the use of assistance, and their social participation within these same activity parameters or domains, in their normal environment, we have been able to re-define disability according to these broader concepts – and to shift focus from impairment to social participation and inclusion.

An analysis of activity limitations and participation restrictions confirms that individuals with mental/emotional impairments experience activity limitations and restrictions in social participation to a greater degree than do others. This is a further indication that there is a need for distinguishing between different types of disability when developing disability policies or specific measures to address inadequacies. Another interesting observation is the higher levels of limitations found in the urban sub-sample. This last finding may contribute to support the hypothesis that increased complexity in society is followed by increased levels of activity limitations and restrictions in social participation.

Matrix-derived scores based on activity limitations and participation restrictions, together with scores derived from needs for services and help needed in accomplishing daily activities were analysed with respect to two living conditions indicators – school attendance and work situation.

Results indicated that those who never had attended school or were unemployed had significantly higher activity limitation and participation restriction scores (and scored higher on help needed in daily activities) than did their counterparts who had attended, or currently were attending school, or those who were currently working.

These results confirm the strength of the matrix scores in differentiating between individuals based on their needs rather than their limitations.

A further indication/confirmation of the social complexity of disability is seen in the fact that mean scores based on needs for services were significantly lower among the same groups described above (those who never attended school and unemployed). This finding points to the importance of environment in the disablement process: those who are more active in society, either through employment or education, meet more obstacles in their expanded environments and thus experience more requirements for services than those whose activities and participation are restricted.

7 Conclusions

This study in Zimbabwe has produced data on living conditions among people with disabilities and a control sample of non-disabled. There exists virtually no other information of this kind produced in, or for, Zimbabwe and this survey represents a unique first possibility to study different aspects of the lives of people with disabilities in the country and a basis for monitoring the situation in the future. Following a similar study in Namibia and preceding the one in Malawi, the Zimbabwean study is also an important link in an initiative to establish a Regional database.

As with the Namibian study, the main finding in this study from Zimbabwe is that there are systematic differences between disabled and non-disabled, and between households with and without disabled members. Individuals with disabilities and their households are worse off on many important indicators of living conditions. It is clearly a challenge to improve the situation for people with disabilities in the context of a low-income country in Southern Africa, while other unsolved basic human and societal problems remain numerous. It is however argued that this study and other similar studies can contribute to highlight systematic discrimination, inform the public, authorities and the disabled

themselves about the situation, and thus create a consciousness that is necessary for action.

Furthermore, by divorcing physical impairment from an individual's limitations and ability as measured in terms of physical, mental, emotional and social parameters, the focus of disability can be redirected towards improving an individual's social situation through reduced activity limitations and improved social participation, and thus facilitating their incorporation as fully active members of society.

It is recommended that the results from this study be considered, together with other relevant sources, as a basis for defining the situation for people with disabilities in Zimbabwe and agreeing upon a path for the future. Setting priorities and developing specific measures will be necessary in order to achieve tangible improvements. A database on living conditions such as the one presented here is in this regard a potentially important tool for organizations of people with disabilities and relevant authorities.

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9 Appendix

1. Participants* involved in pre-study workshops:

Name	Organisation
Mrs. W.M. Jokonya	African Rehabilitation Institute (ARI)
Mr. Papa Fall	African Rehabilitation Institute (ARI)
T. Mungate	Central Statistical Office (CSO)
Mr. Reggies Mamina	Central Statistical Office (CSO)
Mr. O. Manyame	Central Statistical Office (CSO)
Mrs. S. Chidyausiku	Director, Ministry of Health
Mr. A. Karikoga	Emerald Hill School for the Deaf
Mr. W.N. Ruvhere	Jairos Jiri Association
Ms. C. Chawasarira	Marondera Hospital, Rehabilitation Department
Mr. F.G. Mukuta	National Association of Societies for the Care of the Handicapped (NASCOH)
Mr. C. Manyuke	National Council of Disabled People in Zimbabwe (NCDPZ)
Mrs. R. Moyo	NCDPZ
Mrs. R. Muropa	Parirenyatwa Hospital, Annex Psychiatric Unit
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E. Samambwa	Parirenyatwa Hospital, Annex Psychiatric Unit
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Ms. Stembiso Mallinga	Parirenyatwa Hospital, Physiotherapy Department
M. Mandima	Parirenyatwa Hospital, Physiotherapy Department
Mr. A. Phiri	Southern African Federation of Disabled People (SAFOD)
Mr. S.K. Runge	SAFOD

Ms. D. Musakanya	SAFOD
Ms. K. Nyanungo	Schools Psychological Service and Special Needs Education, Ministry of Education, Sports & Culture
Mrs. T. Butau	University of Zimbabwe, Department of Psychiatry
Dr. S.M. Nhiwatiwa	University of Zimbabwe, Department of Psychiatry
Mrs. A.M. Moyo	University of Zimbabwe, Department of Rehabilitation
D.M. Madzivire	University of Zimbabwe, Department of Rehabilitation
Ms. J. Muderezi	University of Zimbabwe, Department of Rehabilitation
Mr. U. Useh	University of Zimbabwe, Department of Rehabilitation
Mrs. R. Mudarikwa	Zimbabwe Association of the Visually Handicapped
M. Rosewater	Zimbabwe Association of the Visually Handicapped
Mrs. E. Matare	Zimbabwe National Association of Mental Health (ZIMNAHM)
Karl G. Hem	SINTEF Unimed
Arne H. Eide	SINTEF Unimed
Mitch. E. Loeb	SINTEF Unimed

*We apologise for any names that may have been misspelled or any participants who may have been unintentionally omitted from the above list. The participation and contributions of all were greatly appreciated.

APPENDIX 2: **ACTIVITIES & PARTICIPATION** **<u>Identification of person with disability</u>:** Section A, column (1) and (2)). Name: _____ Line No.:	**Activity limitation** **(Capacity)** 0 no difficulty 1 mild difficulty 2 moderate difficulty 3 severe difficulty 4 unable to carry out the activity 8 not applicable 9 not specified (level not known**)**	**Participation restriction** **(Performance in current environment)** 0 no problem 1 mild problem 2 moderate problem 3 severe problem 4 complete problem (unable to perform) 8 not applicable 9 not specified (level not known**)** **If coded 1,2,3,4 then continue with column (3), else go to next line.**	**Facilitators in environment** **(Write down only the MAIN facilitator in the person's own words)** What makes it <u>EASIER</u> to participate (perform) including products, technology (includes AT), person support, attitudes, natural environment, services, systems and policies.	**Barriers in environment** **(Write down only the MAIN barrier in the person's own words)** What makes it <u>HARDER</u> to participate (perform) including products, technology (includes AT), person support, attitudes, natural environment, services, systems and policies.
1a. SENSORY EXPERIENCES				
a. watching				
b. listening				
1b. BASIC LEARNING & APPLYING KNOWLEDGE				
a. learning to read/write/calculate				
b. acquiring skills (manipulating tools, learning names)				
c. thinking				
d. reading/writing/calculating				
e. solving problems				
2. COMMUNICATION				
a. understanding others (spoken, written or sign language)				
b. producing messages (spoken, written or sign language)				
c. conversing with others				
d. conversing using devices (telephone/typewriter/PC/Braille)				
3. MOBILITY				
a. maintaining a body position				
b. changing a body position (sitting/standing/bending/lying)				
c. transferring oneself (moving from one surface to another)				
d. lifting/carrying/moving/handling objects				
e. fine hand use (picking up/grasping/manipulating/releasing)				
f. hand & arm use pulling/pushing/reaching/throwing/catching				
g. walking				
h. moving around (crawling/climbing/running/jumping)				
i. moving around using equipment/assistive devices				
j. using transportation to move around as a passenger				
k. driving a vehicle (car/boat/bicycle/or riding an animal)				

ACTIVITIES & PARTICIPATION (Continued)

	Activity limitation	Participation restriction	Facilitators in environment	Barriers in environment
4. SELF CARE				
a. washing oneself				
b. care of body parts, teeth, nails and hair				
c. toileting				
d. dressing				
e. eating and drinking				
f. looking after one's health				
5. DOMESTIC LIFE				
a. getting goods and services				
b. preparing meals				
c. doing housework (washing/cleaning)				
d. taking care of personal objects (mending/repairing)				
e. taking care of others				
6. INTERPERSONAL BEHAVIOURS				
a. basic interpersonal interactions (interacting socially with others)				
b. creating and maintaining informal social relationships				
c. creating/maintaining formal relationships (persons in authority)				
d. interacting with strangers				
e. creating and maintaining family relationships				
f. creating and maintaining intimate relationships				
7. MAJOR LIFE AREAS				
a. education (going to school and studying)				
b. work and employment (getting and maintaining a job)				
c. economic life (handling income and payments)				
8. COMMUNITY, SOCIAL AND CIVIC LIFE				
a. community life (clubs/organisations)				
b. recreation/leisure (sports/play/crafts/hobbies/arts/culture)				
c. religious/spiritual activities				
d. human rights				
e. political life and citizenship				
9. OTHER (specify)				