

**COMPARISON OF VULNERABILITY OF ORPHANED ADOLESCENTS
TO NON-ORPHANED ADOLESCENTS IN THE RURAL HLABISA DISTRICT
OF SOUTH AFRICA**

by

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DECLARATION

I declare that the mini-dissertation

“A COMPARISON OF VULNERABILITY OF ORPHANED ADOLESCENTS TO
NON -ORPHANED ADOLESCENTS IN RURAL HLABISA DISTRICT OF
SOUTH AFRICA”

hereby submitted to the University of Limpopo for the degree of Master in Public Health has not previously been submitted by me for a degree at this or any other university; that this is my work in design and in execution, and that all material contained herein has been duly acknowledged.

Dr. Ahmed. G. M. Adam

Date

████████████████████

DEDICATION

My dedication, foremost, is to God Almighty Who Proclaimed:

“Read! In the Name of Thy Lord and Cherisher,

Who created man out of a mere clot of congealed blood:

Proclaim! And your Lord is Most Bountiful-

Who has taught man

The use of the pen

Taught man that which he knew not.” Al-Quran, 96, 1-5.

To my family for encouraging me to study even in advanced age.

To my Late Mother who nurtured me and smiled in adversity.

ACKNOWLEDGEMENT

To all my Professors, tutors and teachers for their compassion and guidance throughout the course and to Dr. Mathilda Mokgatle-Nthabu, my supervisor, who patiently advised me throughout the years.

My gratitude to Africa Centre, its Director and staff who made available the datasets, and allowed researchers to help and guide me.

To the children of Hlabisa and their caregivers who participated diligently in the six monthly surveillance of their well- being, since year 2000.

Finally, to the dedicated field workers of Hlabisa, who with commitment and passion, collected data for almost a decade and understood the value of surveillance as a the benefit to their community.

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LIST OF ACRONYMS

| | |
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| AC | Africa Centre |
| ACDIS | Africa Centre Demographic Information System |
| AIDS | Acquired Immune Deficiency Syndrome |
| ART | Antiretroviral Treatment |
| BS | Bonded Structure |
| CBO | Church Based Organizations |
| CMR | Child Mortality Rate |
| DSA | Demographic Surveillance Area. |
| DSS | Demographic Surveillance System |
| HIV | Human Immune Deficiency Virus |
| IMR | Infant Mortality Rate |
| NGO | Non-Governmental Organization |
| OVC | Orphan and Vulnerable Children |
| PLWHA | People Living With HIV and AIDS |
| PMTCT | Prevention of Mother to Child Transmission |
| STI | Sexually Transmitted Diseases |
| UNICEF | United Nations Children Fund |
| UNAIDS | United Nations AIDS |

OPERATIONAL DEFINITIONS

- Adolescent:** - a person aged between 15 years and 18 years.
- Orphan:** - an orphan is a child under 18 years of age whose mother, father or both parents have died from any cause.
- Single orphan:** - a child who has lost one parent.
- Dual (Double) orphan:** - a child who has lost both parents.
- Maternal orphan:** - a child who has lost a mother (includes double orphan).
- Paternal orphan:** - a child who has lost a father (includes double orphan).
- Vulnerable Children:** - a child capable of being physically, sexually and emotionally wounded or hurt, open to temptation, persuasion and disease.

Abstract

BACKGROUND

In an era of HIV/AIDS many children are growing up without parents. In rural Hlabisa District, KwaZulu Natal the rate of orphanhood has increased with HIV prevalence rates. Orphanhood increases with age and peaks at the adolescent range of 15-18 years. Adolescence is a very critical stage of life when the individual has to face many challenges. If not adequately handled, it will lead to either a successful or destitute life. This has led many to be in a vulnerable position and their very livelihood threatened.

OBJECTIVES

To determine the age-sex distribution of adolescent orphans to non-orphan adolescents and to compare their education level and drop-out from school; sexuality and pregnancy; socio-economic, employment and emigration; dependence on government grants and to determine the health of both groups especially their HIV status.

METHODS

A Cross-Sectional Data Analysis Design using data from a longitudinal surveillance system of Africa Centre Demographic Information System in Hlabisa was made available. Use of regression analysis was done to investigate the relative risk to pregnancy, drop-out of school, living in poorer households, migration and HIV infection of orphans relative to non-orphans in adolescents, aged 15-18 years.

RESULTS

In 2006, the year of study, there were 8609 adolescents (aged 15-18 years) who constituted 22.87% of all children (0-18 years). The overall orphanhood prevalence was 10.37%. In the orphanhood group, the prevalence increased significantly with age peaking around 16 years. 45.24% were orphans in the group of study (15-18 years). Paternal orphans were highest, followed by dual and then maternal. Majority of all adolescents acquired Grade 9 education but there was a gradual drop in attaining higher education from Grade 10 to 12 with fewer orphans reaching matriculation to non-orphans (4.22% and 5.32% respectively). Majority of adolescents left school and did nothing (56.39% among orphans and 53.3% among non-orphans). Pregnancy accounted for a significant drop-out of school among adolescent females (12.71% non-orphans, 10.27% orphans). Adolescent orphans were more likely to have ever had sex while there was no statistical difference in the odds of ever being pregnant (female only) and fathering a child (male only). Orphans were poorer and out-migrated. Orphans had a higher prevalence of HIV infection and perceived their general health was poor. 4.53% of adolescent orphans were assessing government grants than non-orphans (1.16%).

CONCLUSION

Orphan adolescents lived in significantly different socio-economic circumstances than non-orphaned adolescents. The high percentage of adolescent orphans in the study group poses a significant public health problem. Being an orphan is associated with increased vulnerability to lack of support. Intervention programmes to improve the plight of orphans needs government and community commitment.

CHAPTER ONE

INTRODUCTION, BACKGROUND AND RATIONALE

1. INTRODUCTION

Parental loss before adulthood, especially of both parents, almost inevitably results in changes of household living arrangements. There are generally two scenarios left to children growing up without parents. They either go on to join other households with a parental figure or remain in their household in which the parental role is shared among siblings or assumed by an older (or mature) sibling. Whenever living arrangement changes occur following parent death there is likely to be emotional dysfunction of the children, resulting from poor mentoring, lack of parental care and love, and lack of emotional support (Reher & González-Quiñones, 2003). Orphaned households are likely to have physical and economic dysfunction such as crowded households, limited to no access to schooling and health facilities, inadequate nutrition, early entry into the labour market, and into early marriage (Reher et al, 2003).

Generally many of the orphan hood studies have focused on children under 15 years (Andrews, Skinner & Zuma, 2006). The need for parental care and support, however, exists beyond childhood into adolescence.

In this study we contribute to the debate by investigating the circumstances of adolescents defined as 15 to 18 year olds living in the rural Hlabisa sub-District of Northern Kwa-Zulu Natal. The study will be based and analyzed from surveillance data of Africa Centre, located within the Hlabisa sub-District.

1.1 BACKGROUND AND RATIONALE OF STUDY

The UNAIDS Global Report (2010) indicate that the rate of orphan hood has increased with Human Immune Deficiency Virus (HIV) prevalence rates in a maturing epidemic. The Acquired Immune Deficiency Syndrome (AIDS) pandemic which began at the end of the last millennium and continues in the new millennium is the world's most deadly undeclared war. HIV/AIDS is a major public health concern and cause of death in Africa. In 2007 Africa had just over 14, 7% of the world's population but estimated to have 88% of people living with HIV and 92% of all AIDS deaths (UNAIDS Global Report 2010).

The Report further states that at the end of 2009, sub-Saharan Africa had 22, 5 million people living with HIV, including 2, 3 million children. 90% of the 16, 6 million children were orphaned by AIDS. Children who have been left behind are the sad victims. They endure overwhelming and unmitigated losses and live in societies already weakened by under-development, poverty, inadequate health resources, poor sanitation, and unsafe water and riddled with infectious diseases.

According to Andrews et al. (2006) "A generation of children in sub-Saharan Africa have been orphaned by the HIV pandemic and it is projected that by 2010, eighteen million African children under the age of 18 years are likely to be orphaned from this single cause".

As a result, many adolescents are growing up without parents and lead many to being in a vulnerable position and their very livelihood threatened. Adolescence is a very critical stage of life when the individual has to face several challenges and if not adequately handled it may lead to either a successful or destitute life.

1.2 AN OVERVIEW OF THE PRIMARY RESEARCH BY THE AFRICA CENTRE

The Africa Centre Demographic Information System (ACDIS) began collection of data at the beginning of 2000. In the initial phase data was collected every four months but from year 2003 data were updated every six months.

ACDIS has two components:

- Demographic Surveillance System (DSS)

The above is often referred to as Household Surveys. It tracks households in the area and record demographic components including population size, population composition, fertility, migration, education and socio-economic characteristics. DSS studies identify determinants of mortality and morbidity to monitor demographic trends. It renders support to health systems research, development and field research provides reliable data bases and follows a population in a geographic area over time.

- HIV Surveillance

This is a population – based testing and also known as individual survey. It tracks individuals and collects behavioural data and blood samples. Samples from the Demographic Surveillance Area (DSA).are sent to National Health Laboratory Services based at Hlabisa Hospital.

Hlabisa District is about 230 km north of Durban and is a rural magisterial area of KwaZulu Natal. Hlabisa has a population of 217,750 people based on the 2001 census. The inhabitants are mainly Zulu speaking and lead predominately a rural life with pockets of suburban populations around the market town of Mtubatuba. The majority are of African origin and considered Christians.

Data collection is ongoing in the DSA which includes the tribal area of Mpukunyoni, Mtuba Transitional Local Council, township of KwaMsane and Hlabisa Municipality. A rural development project, known as Indlovu Village, has been included since most of the migrants there come from the DSA.

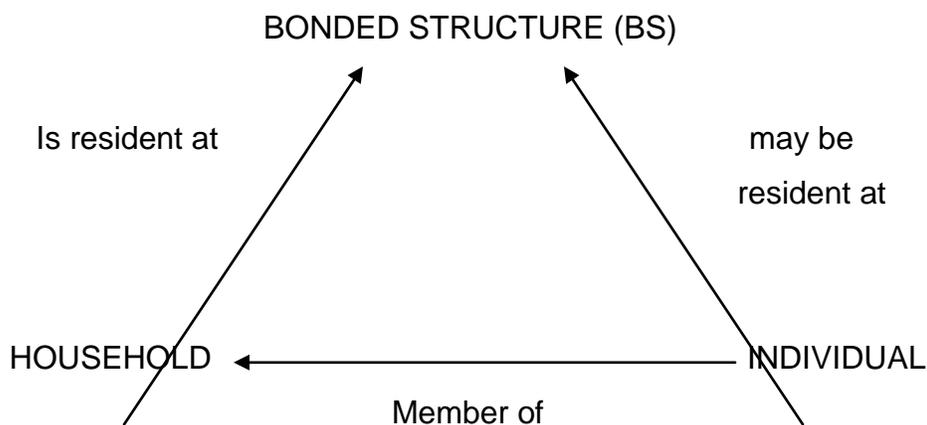
The DSA is approximately 432 km squared in size and sharply demarcated by marked boundaries: large perennial rivers, nature reserves, forestry areas and commercial farmlands.

In June 2006, there were 85855 people under surveillance in the DSA living in approximately 11 000 households. In rural areas most homesteads are far apart, multi-generational, with an average size of 7, 9 members. Within the homestead there are clustered huts or small buildings forming the household with a traditional head of the family.

Rural income is from waged employment and from state pensions. By 2006, 77% of homes had piped water and toilets. Electrified houses are mainly those closer to towns.

1.3 JUSTIFICATION FOR THE PARADIGM AND METHODOLOGY

The three main subjects of interest observed longitudinally in ACDIS are represented in Figure 1: (Courtesy of Africa Centre)



Bonded Structure (BS)- Primary subject of interest of ACDIS

The BS is defined as a building or group of buildings on land belonging to a single person or organization. It is a physical space represented by a point on a geographical information system. It enables ACDIS to follow up individuals and their registration on the ACDIS databases. When more than one buildings share a homestead, each is linked to the same BS.

In 2006, of 14209 BS, 13805 were used as homesteads the balance being facilities that provide accommodation like schools, clinics, shops, churches and crèches.

1.3.1 HOUSEHOLDS

Households can have a single person or multi-persons who are usually related. They share resources and known to each other well enough to provide information about each other. In each household one member is regarded as head.

ACDIS field workers visit BS and collect data about previously registered households as well as new household migrated in or newly formed.

Update visits are done every six months listing births, deaths, moved in or migrated out since last visit.

1.3.2 INCLUSION OF HOUSEHOLD-IN DSS

For inclusion one must be a member resident in the BS and the head must be member of the household. In year 2000, there were 11758 households. By 2006 there were 1125 households moved in while 471 households moved out.

1.3.3 INDIVIDUALS

There are nearly 90 000 individuals in the total population under surveillance of the DSA. Each individual was the main subject of interest in ACDIS. Routine demographic and health information was collected. Age, sex, conjugal relationships, birth and death data were collected from individual household members. Individuals must have spent at least one night in residence in the 12 months prior to registration to qualify as members of the household. (Heads are exempted).

1.3.4 MEMBERSHIP

There are three features of ACDIS:

- ACDIS records information on residents as well as non-residents that retain membership in the DSA. There is accurate tracking of residence status in the DSA.
- Households and individuals are tracked differently. Household surveillance allows scientists to examine the impact of diseases and intervention at the household level. Another module tracks individual household members.
- The HIV surveillance creates representative cohorts of individuals with known HIV status for prevention and treatment.

During a homestead visit, field workers of Africa Centre (AC) collect new information since the previous visit about the start and end events of residences

and memberships of individuals in a household. Membership acquired through birth or new social allegiance e.g. upon marriage are noted. Membership may end without change in residence e.g. through loss of social links.

Multiple memberships are when one is member of several household e.g. polygamous men whose wives maintain separate households or cohabiting parents who are considered members of both maternal and paternal households and move between households.

Affiliated members reside for extensive periods of time in a household e.g. domestic worker, herd boys and children from other households. The rate of affiliated members is decreasing as they become integrated within the household and are registered as full members.

Non-residents live elsewhere for most of the time and whenever they visit the household at its bonded structure, they always leave again.

In 2006, the membership structure was as follows:

| | |
|---------------------------|-------|
| Resident Full Members | 60962 |
| Non-Resident Full Members | 30583 |
| Affiliated Members | 16 |

Courtesy of Africa Centre.

1.3.5 DEMOGRAPHIC COMPONENTS OF ACDIS

a) FERTILITY

All pregnancies in the DSA (includes miscarriages, abortions, still births and live births) were recorded and their outcomes followed. Birth

provided a basis for registration in the DSS and estimation of fertility level.

b) MORTALITY

All deaths were recorded and this terminated all episodes of the participating individual. Verbal autopsy, via interview with informant, established retrospective cause of death of the deceased.

c) MIGRATION

ACDIS tracked origin and distribution of migrants. It was recorded as single migration or as household in or out of a BS. Change of residency was self - reported or by a proxy member.

d) MARITAL AND CONJUGAL RELATIONSHIPS

ACDIS recorded current marital status of all individuals aged 18 years and over at each field visit. Both civil and traditional marriages were recorded. Non-marital sexual relationships were also captured to distinguish from marital status.

Additional information on sexual partners from persons aged 15 years and older who were not married was captured. Conjugated relationships referred to married or regular sexual partners who were members of the same household regardless of places of residence.

1.4 RESEARCH PROBLEM AND HYPOTHESIS

The loss of a father or mother or both will deprive an orphan of much needed support in their upbringing. The guidance and nurturing is lost as they grow, and in the critical age of adolescence, one is most vulnerable as one approaches independence without parent care.

In a rural setting it is hypothesized that adolescent orphans are at a disadvantage in an environment that will stigmatize and discriminate against them.

This may lead to poor outcomes as far as their education is concerned. Drop out from school may be significant as compared to non-orphans due to financial constraints because of loss of income of an affected parent. Early sexual debut has risk of acquiring HIV, especially in a high prevalence area. The rate of pregnancy may be higher in female orphans than non-orphans due to lack of supervision and upbringing. It may be more difficult for orphans to acquire employment and this may lead to higher level of migration to cities in order to better their lives.

Adolescents who live without parent(s) experience many negative changes in their lives. Further, adolescents suffer neglect, including emotional neglect, emotional trauma that results from death of parent(s). Their access to basic needs such as shelter, food, health, clothing and education is compromised. Orphans are more likely to live in large, female headed households and dependent on fewer income earners. Lack of income drives some adolescents to streets to look for work, beg or seek food. Added to these challenges are the physiological changes that all adolescents go through; without parental support, especially in matters of sexuality, leads to further vulnerability to exploitation and ill health.

Non-orphans have the benefit of being nurtured by both parents. There is parental support in upbringing. Parents provide sustained financial income and

this ensures adequate housing, food, clothing and health care. Furthermore, non-orphans can afford schooling (fees, stationery, uniforms). Parents also provide emotional support with a caring mother and father as mentor. Non-orphans are protected in a family environment and advice on sexuality is easily obtained from a responsible mother to an adolescent daughter or father to a son. Orphans on the other hand will be deprived of the benefits listed above leading to increased vulnerability.

1.5 JUSTIFICATION FOR THE RESEARCH

The impact of HIV/AIDS epidemic on children has been given global attention in the past decade. The vulnerability of orphans and vulnerable children (OVC) in such an environment has been a subject of debate in the era of HIV/AIDS.

The Millennium Development Goals (MDG's) stemmed from the Millennium Declaration (adopted in 2000) and reaffirmed at the World Summit of 2005. At the United Nations General Assembly Special Session on HIV (2001) and on Children (2002) government leaders of the world committed to achieving these Goals. They vowed to develop and implement national policies and strategies that protect and support children orphaned and made vulnerable by AIDS. UNICEF and UNAIDS launched the global campaign "Unite for Children, Unite against AIDS" in 2005.

School attendance and sexual debut in adolescents are some of the indicators used to compare the outcomes between orphans and non-orphans. Other studies used household heads or eldest females and their education levels on the outcome of children living with them.

Figure 1 below is a conceptual framework for the study which shows the pathways to increased vulnerability following orphanhood. The lack of a father figure contributes to weak school support, and poor health and nutrition when a

father dies. Maternal orphans, in addition, suffer from lack of mothers love and emotional support. This is more devastating when they are brought up by a single parent, usually mother. The loss of a father or mother or both will deprive an orphan of much needed support in their upbringing. The guidance and nurturing is lost as they grow, and in the critical age of adolescence, one is most vulnerable as one is approaching independence without parental care. Lack of income drives some to streets to look for work, beg or seek food. Added to these challenges are the physiological changes that all adolescents go through; without parental support, especially in matters of sexuality, leads to further vulnerability to exploitation and ill health.

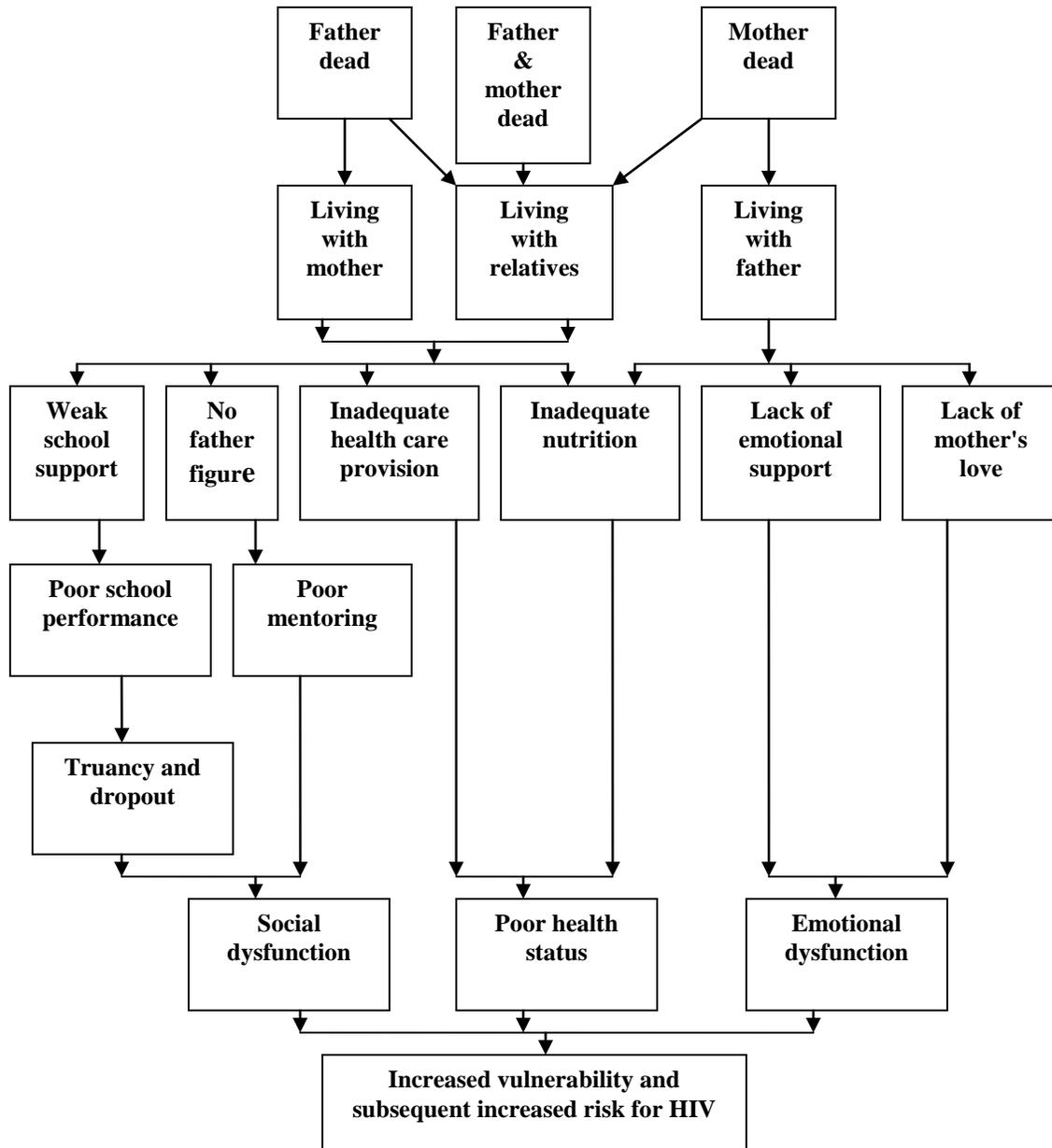


Figure 2: Conceptual Framework for Studying the Vulnerability of Orphaned Adolescents in rural South Africa (Courtesy of Prof. Suleiman Bah, Former Head, Epidemiology, National School of Public Health, Medunsa).

1.6 PURPOSE AND GOAL OF THE STUDY

This study aims to answer the question: Are there differences in age-sex distribution, education level achieved, reasons for not being at school including sickness and injury, socio-economic status, economic activity, sexuality and pregnancy between orphaned and non-orphaned adolescents in the rural Hlabisa District.

The goal of the study is to compare the socio-economic, educational, sexuality, pregnancy and health characteristics between orphaned and non-orphaned adolescents in rural Hlabisa District.

The study aims:

- a. To determine the proportion of adolescents who are orphans.
- b. To compare the risk of school drop-out between the two groups.
- c. To compare the sexual debut and partnership patterns between the two groups.
- d. To compare the socio-economic, employment and migration characteristics of the two groups.
- e. To compare dependence on government grants to sustain a livelihood of the two groups.
- f. To compare the health status between the two groups in relation to HIV/AIDS.

1.7 RESEARCH METHODOLOGY

A Cross-Sectional Data Analysis Design obtained data from a longitudinal surveillance system of the Africa Centre Demographic Information System

(ACDIS). ACDIS data sets only of year 2006 were used. The surveillance population of that year consisted of all individuals appearing on ACDIS and totaled 85855 people.

The study sample was 9004 adolescents, aged 15 to 18 years. Data sets of the adolescents on demography, education, migration, socio-economy, sexuality and health were used.

1.8 ETHICAL CONSIDERATION

Ethical permission for the on-going Demographic Surveillance System of Africa Centre, Hlabisa was granted by the Biomedical Ethics Committee of the University of Kwa Zulu Natal (ref E 009/00).

Access to the Africa Centre Demographic Information System (ACDIS) has been granted by the Director of Africa Centre (Permission letter enclosed).

ACDIS data were accessible through a suite of over 50 detailed datasets which were safely and securely stored at Africa Centre. Datasets were anonymous and hence confidentiality was safeguarded.

The Research Proposal was submitted to the Department of Public Health Research Ethics Committee and the University of Limpopo Medical Research Ethics Committee (MREC) .The MREC of the University of Limpopo approved the project, number - MREC/H/207/2010: PG dated 4 November 2010.

1.9 DEFINITIONS OF CONCEPTS

Adolescent: a person aged between 15 years and 18 years.

| | |
|------------------------------|--|
| Orphan: | an orphan is a child under 18 years of age whose mother, father or both parents have died from any cause. |
| Single orphan: | a child who has lost one parent |
| Double (Dual) orphan: | a child who has lost both parents |
| Maternal orphan: | a child who has lost a mother (includes double orphans) |
| Paternal orphan: | a child who has lost a father (includes double orphans) |
| Vulnerable Children: | child capable of being physically, sexually and emotionally wounded or hurt, open to temptation, persuasion and disease. |

1.10 OUTLINE OF THE REPORT

The general lay out of the report is as follows:

Chapter One

Is an introductory chapter which orientates the reader to the background, rationale of study, and the research problem and hypothesis. It also presents the justification for the research, purpose and goal of study, research methodology, ethical considerations and clarifies the operational definitions used in this study.

Chapter Two - Literature Review

The literature review investigated the vulnerability of orphan development from childhood to adolescence.

The vulnerability in relation to the outcomes in education, sexuality, socio-economic characteristics, dependence on government grants and general health especially in relation to HIV/AIDS was researched.

Chapter Three - Methodology

A cross-sectional study design analyzed secondary data on all adolescents aged 15 years to 18 years in the surveillance area who were members of households in 2006. Access to data sets, in an anonymous format, was obtained by written permission from the Director of Africa Centre.

Data sets in demography, membership, and socio-economy were obtained from Household Surveillance whilst sexual behavior, general health and education from Individual Surveillance.

Chapter Four – Results.

A comparison of children was made between in the following domains :

- Age-sex distribution of orphans and non-orphans one month-18 years
- Proportion of orphan type among adolescents
- Sexuality, residency, education, reasons for not being at school, socio-economic status, health (especially HIV), assessment of government grants by orphan status

Chapter Five

*Conclusions of the research questions

*Recommendations to uplift the plight of adolescents

*Limitations at Community and Government levels.

CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

An orphan, as defined by the South African Government, is a child under 18 years of age who has lost a father, mother or both parents due to death or permanent desertion (Statistics South Africa, 2007). Such an orphan is therefore, potentially in need of care and support from people other than his/her biological parents.

An upsurge in orphan hood is seen during natural disasters like fires, mudslides, earthquakes and floods. Also wars and genocides contribute to orphan numbers.

The AIDS pandemic has resulted in a greater phenomenal upsurge in orphan hood the world has not seen before.

Besides loss of a productive population (age 19-49 years) and its negative economic impact on a country, AIDS has resulted in millions of orphans and vulnerable children. This has caused great strains on families, communities and governments.

The literature review highlights the burden on orphan development and the vulnerability these children are exposed to. The biggest burden of orphanhood is in sub-Saharan Africa and the review quantifies this and traces how these countries deal with the various effects on their schooling, sexuality, health, dependence on government, communities and extended families.

2.2 ESTIMATES OF ORPHANHOOD

It is estimated that by 2010, 18 million people in sub-Saharan Africa, under the age of 18 years, will be orphans due to HIV/AIDS alone (UNICEF, 2005). Orphans are more likely to be more vulnerable than non-orphans and that policy makers and implementers of programmes should highlight this when focusing on interventions (Andrews, Skinner & Zuma, 2006). In South Africa, by 2010, it is estimated that 16% of all children in our country will be orphans and 70% of them will be related to HIV/AIDS (Population Council, 2004).

According to Watts, Lopman, Nyamukapa & Gregson (2005), paternal orphan incidence was higher than maternal orphan's incidence due to maternal orphans losing their fathers at a faster rate than paternal orphans losing their mothers. Paternal and maternal orphan incidence increased with age. This study in Eastern Zimbabwe also showed that orphan incidence patterns differ from orphan prevalence patterns. Support programmes need to be cognizant of this difference.

A study by Grassy, Lewis, Mahy, Walker & Timaeus (2004) showed that survey estimates of maternal and paternal orphans were significantly lower than the 40 household surveys done in 36 counties of sub-Saharan Africa. This could be due to under-reporting of orphanhood and of adult mortality from other causes other than AIDS, in projection estimates.

An analysis of national surveys from 40 sub-Saharan countries showed an overall 9% of children less than 15 years have lost at least one parent. One in six households was caring for orphans. Frequently households are headed by an elder female. Nine out of ten non-orphans live with their mother while orphans are less likely to live with surviving parent. While three out of four paternal

orphans live with their mother, half maternal orphans live with their father. 90% of double orphans live with grandparents (Monasch & Boerma 2004).

In a study of a rural population in South-West Uganda, 10% of children aged less than 15 years were reported to have lost one or both parents, (Kamali, Seely & Nunn 1996). Loss of father alone was 2.5 times more common than mothers alone.

Sub-Saharan Africa was home to 67% of all people living with HIV and 72% of all deaths due to AIDS in 2008. It is estimated that 14 million children in sub-Saharan Africa have lost one or both parents due to AIDS. Adult prevalence estimates in Namibia, South Africa and Zambia are 15.3%, 18.1% and 15.2% respectively.

Namibia has 66,000 orphans due to AIDS and 110,000 due to all causes: South Africa has 1.4 million orphans due to AIDS and 2.5 million due to all causes whilst Zambia has 600,000 orphans due to AIDS and 1.1 million due to all causes (FABRIC 2010).

In South Africa, due to high prevalence of HIV/AIDS and increasing mortality, 24.8% of youth age 15-18 years has lost one or both parents (Brookes, Shisana & Richer 2004).

2.3 RISK OF SCHOOL DROP-OUT

A well-educated mother benefits a child's schooling. There was no evidence that maternal orphan hood or living apart from mother adversely affected a child's schooling. On the other hand, both paternal orphanhood and residing in different household from one's father resulted in slower progress in school. Both girls and boys were at 1.57 times the odds of being 2+ grades behind in their schooling. This may be attributed to the relationship children have with their fathers that seems to be important (Timaeus & Boler 2007).

Bicego, Rutstein & Johnson in 2003 analyzed the orphan crisis in sub-Saharan Africa and findings indicate that losing one or both parents significantly diminished chances of being at appropriate grade level for age.

Parikh et al (2007) concluded that there was no statistical significant difference in most educational, health and labour outcomes between orphans and non-orphans living in the same households. In the context of migration of adults and high prevalence of HIV/AIDS, 39% of non-orphans and 12% of orphans had a parent as primary care giver while grandparents were primary caregivers to 56% of orphans and 43% of non-orphans.

Oleke, Blystad, Fylkesnes & Tumwine (2007) found that in Northern Uganda very poor widows living on less than half a dollar a day head 48% of households caring for orphans while the elderly were three times more likely to have all their household children in school. Widowed and single headed homes were more likely to have all orphans at school. There were better schooling opportunities if external support was obtained. Poverty and heavy involvement of orphans in domestic labour were identified as major constraints on orphan schooling.

An article by Case & Ardington (2004) showed an association between a paternal death and a child's educational attainment, enrollment, and resource allocated to his/her education. However, the study showed significant differences in the impact of mothers' and fathers' deaths.

The loss of a child's mother is a strong predictor of poor school outcomes. The children are less likely to be enrolled in school, complete fewer years of schooling than children whose mothers are alive. Maternal orphans are less likely to be enrolled in school and have completed significantly fewer years of schooling than with non-orphans with whom mothers live. The loss of a child's father is a significant predictor of household socioeconomic status. However, this

correlation arises because the household was poor. Hence the educational outcome before or after the father's death was the same.

In South West Uganda, AIDS was contributing to 41% of the orphan problem (Kamali et al 1996). Orphans were less likely to attend school than non-orphans as a result of decreased income due to ailing parent/s or death of parent/s. The family system of care seems to be still coping as there was no significant difference in mortality of orphans and other children. This capacity may become overstretched with the increasing number of orphans as the HIV epidemic evolves.

2.4 SEXUAL RISK AMONG ORPHANED YOUTH

Near a third of the world's population are aged 10-24 years. Four out of five live in developing countries with expectations of 87% by 2020. (Friedman,1993). Majority of the youth are sexually experienced by age 20 and premarital sex is common among 15-19 year olds. 31% young men and 47% young females in Ghana are sexually active. (Population Council 1996).

Adolescents are believed to be young people who are risk-taking pleasure seekers, live for the present, having sex earlier than the past, ill-informed and unduly giving in to peer pressure. A well-designed sex education programme which includes messages of abstinence and safer sex may delay the onset of sexual activity, reduce the number of partners, and increase contraceptive use among those who are sexually active (Grunseit, Kippax, Aggelton, Baldo & Slutkin 1997).

Adolescents, especially young women, are most vulnerable to HIV infection in developing countries. In a study of black teenagers attending ante natal clinic in Cape Town, Vundule, Maforah, Jewkes & Jordan (2001) found that 72% of girls reported having been forced to have sex at some stage and 11% being raped.

There is need to discourage sexual exploitation of children and commercial sex in adolescents to earn an income. The South African National Youth Survey found that 39% of sexually experienced girls were forced to have sex and 33% were afraid to say no. (Kaiser Family Foundation 2001).

A sexual risk behaviour study by Thurman, Brown, Richter, Maharaj & Magnani (2006) found that in South Africa, orphans are more likely to engage in sex (49% compared to non-orphans at 39%), and among sexually active youth to have sex at a younger age.(23% of orphans having had sex by age 13 years or younger compared to 15% of non-orphans).

Gregson, Nyamukapa, Garnett, Wambe, Lewis & Mason (2005) mentioned that maternal loss was an important risk factor for HIV infection among teenage girls. The same researchers found that in a population –based study in Zimbabwe, adolescent female maternal orphans had earlier sexual intercourse than their non-orphan peers.

In Zambia and Tanzania, majority of young commercial sex workers were young orphans (Rau, 2003). The psychosocial challenges, due to stigma of HIV/AIDS, may characterize risk factors such as increased stress, low level of monitoring and lack of parent-family connectedness.

Earlier sexual behaviour occurred among male and female orphans. Multiple factors that contribute to this include lack of protection, lack of adult control, loss of love and affection from lost parents, migration due to poverty, compulsion from caregivers, and a desire to acquire luxuries.

In South Africa, 50% of youth being sexually active by age 16 years (Eaton, Flisher & Aaro 2003).Female teenagers are at high risk of acquiring HIV as 16,1% attend antenatal clinics in a HIV prevalence of 29,5% among all females who are pregnant.(Department of Health,2005).

2.5 SOCIO-ECONOMIC CHARACTERISTICS

The Integrated Regional Information Network in 2003 reported that the Swazi Government made its communities aware that the orphans and vulnerable children (OVC) burden is approaching one-eighth (1/8) of its population. It mobilized 136 communities and established 30 community and 80 farm schools. Eighty seven (87) neighborhood Care Points supported nutritional, counseling and medical needs for OVC. They promoted awareness of child abuse, HIV treatment and adherence.

In Zambia, an assessment for the care and support of orphans by the communities was commissioned on behalf of UNICEF and USAID. (Mudenda, Mulenga & Ndubani 1999). Some of the activities of 13 projects studied demonstrated keeping a register identifying orphans, community fundraising, agricultural and educational programmes, skills training for orphans, counseling and psychological support for orphans, HIV/AIDS education and awareness, institutional care of orphans, open community schools and awareness of the plight of orphans. This front – line care at grassroots level with government support enhanced community “mobilization” to care for its orphans.

An evaluation of the different approaches to care and support to vulnerable children in South Africa recommended strengthening the capacity of households to care for OVC, community support including a simplified system to access government grants and income generating projects. Most cost effective models of care were in community- based structures (Bah, Mid Term Review 2001- 2004, UNICEF).

A study by Parikh & DeSilva (2007) in the Amajuba District in South Africa, determined intra-household differences in child wellbeing between orphans and non-orphans. They found no statistical differences in most educational, health and labour outcomes between orphans and non-orphans living in the same

household. All the orphans lived with close relatives (aunt or grandparent). It also seems that the destination household, with time, may become saturated and could struggle to absorb more children.

It was also found that the social grant system assists families in coping. Child support grant seems to reach its target in KZN (Case, Hosegood & Lund 2005). Because HIV/AIDS affects young adults, it is weakening the working population.

Deepening poverty in entire communities and sustainability, cultural scrutiny, acceptability, psychosocial and physical health consequences needs community members willing to provide care could allow financial stipends for food, clothing and education (school fees and transport). Community based care needs strengthening. Weakening of traditional means of care of orphans will need long term solutions. According to Leyenaar (2005), formalizing of foster care by establishing a registry of orphaned children and establishments of orphanages have potential but it's a long- term target.

In a semi-rural Municipality of Kapanong in the Free State, a comparative study of the whole black population and a smaller survey sampling households which accommodated orphans and vulnerable children was done (Tamasane & Head, 2008). The municipality covered nine towns, a farming area of white owned commercial farmers. The study investigated whether the quality of material care provided by grandparents was inferior to that of parents, other relatives or non-relatives. Quality of care was measured by the possession of a birth certificate, uptake of social grants, school attendance and the number of meals consumed daily.

The extended family provides the bedrock of care of orphans and is mainly rested with the grandmother. It was assumed that the quality of care provided by grandmother was influenced by lower level of knowledge, too old and being weak.

The Kapanong study found that the quality of care of grandparents was no inferior to that of biological parents, other related care givers as well as non-related care givers (Tamasane & Head,2008).

However, there was widespread material deprivation that affected all children. The current conditions of widespread poverty and large unemployment in this Municipality affected all children whether orphans or not.

The Faith Based Regional Initiative for Orphans and Vulnerable Children (FABRIC) - Supported by USAID and Project Search - monitors the implementation of each core programme areas of Presidents Emergency Fund Programme for AIDS Relief (PEFPAR). FABRIC main aim is to improve the quality of life for orphans and vulnerable children by strengthening the capacity of its implementing agencies - South African Catholic Bishops Conference (SACBC); Expanded Church Response (ECR) in Zambia; and Positive Vibes (PV) in Namibia. FABRIC provides financial, organizational, technical and capacity building support to its agencies enabling them to support its sub-recipients to deliver services efficiently.

The core programme areas of PEFPAR are education-removing barriers by advocacy for reduced school fees, provision of school books, uniforms, shoes, and other school supplies. Providing mentoring, career guidance, encourage school enrolment and monitor performance.

Psychological Status - provide support and counseling to children capacity building and guidance to caregivers to listen and talk to OVC.

Food and Nutrition - supplementary feeding, foods parcels and educate the carer in weaning of feeds, preparation and nutritional value of foods, cooking demonstrations.

Health Care - direct access to health facilities or referring to PMTCT and HCT providers together with training of carers in preventable health care, and health education.

Shelter and Care – temporary shelters, adoption, fostering services, and family reunification.

Child Protection and Legal Aid - minimize stigma and social neglect, Promoting access to social grants, national registration documents (birth certificates) and Identity documents, child abuse reporting and support.

The Ministry of Health in Zimbabwe estimated in 1994 that 1,5million (25-30%) out of a total population of 11million were HIV positive and the life expectancy for women fell from 57 to 30 years by 2000. Gregson et al., 1994; 1996 estimated that the percentage of maternal orphans will rise from 3% to 22% over the same period.

This translated to one in five households will have orphaned children and 13% of children under the age of 15 years would have lost one or both parents. With the high numbers of young adults dying, the burden of care is falling on the elderly and adolescents.

The Families, Orphans, Children under Stress (FOCUS) model, a community - based, cost effective and volunteer driven has been replicated in four rural sites in Manicaland. Volunteers live in the same communities, mainly women and widows themselves, are given basic training to identify and register orphans. In the last six months of 1996, 88 volunteers made 9634 visits to 3192 orphans in 798 families (Drew, Makufa & Foster 1996). These are supported by Church Based Organizations but needs resources from Government as well to sustain the community-based model. Barriers include the support and evaluation of

volunteers, rising mortality rates, increasing number of orphans, stigma and limited resources.

2.6 DEPENDENCE ON GOVERNMENT GRANTS TO SUSTAIN LIVELIHOOD

It was found that the social grant system assists many rural families to cope. Support Grant systems seems to reach its target in rural Kwa-Zulu Natal (Case, Hosegood & Lund 2005). On an average grant contributes to more than half of total household income, (53%) in poor areas.

There were 13 million recipients of social grants in 2008 (Dept. of Social Development, 2008). Of these 8 million were estimate to be carers of children below 18 years. In 2002 the Human Science Research Council of South Africa estimated that 8% of all children between 0-15 years had lost both parents and this had risen to 11% by 2005. There are 5 to 7 million people living with HIV/AIDS in South Africa (Department of Health 2008). With an unemployment rate of 30 %(Stats SA) social grants play a pivotal role in alleviating poverty and vulnerability among the poor.

The South African State Social Assistance includes Child Support Grants to children less than 14 years of age. Child grant data from ACDIS (Africa Centre Demographic Information System) show that in rural Kwa-Zulu Natal, 36% of all children under the age of 7 have some contact with the Child support grant system, 80-90% of children between 1-6 years received a grant (Case et al 2005). In the fifth year of grant, a third of eligible children were receiving assistance. Children whose fathers have died were more likely to be receiving grants. It was found that when the mother is absent (non-resident or dead); children were less likely to obtain a grant. One reason being the that there is lack of knowledge that a primary caregiver need not be a mother and secondly access to relevant documentation for registering a birth was lacking. ACDIS

found a positive and significant association between grant receipt and school enrolment among 6 and 7 year olds.

2.7 GENERAL HEALTH STATUS OF CHILDREN

A lot of research is conducted on the role of good nutrition in children's health. The nutritional status of young children is an indicator of food availability and its lack leads to sudden changes in health status. The nutritional status of children is negatively affected by low levels of education of the caregiver, large household size, low levels of income, and orphanage due to HIV/AIDS. Lack of material and psychological support also contribute to poor health outcomes. Households headed by the elderly in the Rakai District, Uganda, showed that in HIV/AIDS orphaned children there was high levels of malnutrition and 47% of them were underweight. Children living with parents were 28% underweight (Kikafunda & Namusokel 2006). Usually, under-nutrition declines with age but with AIDS orphans it was the opposite with levels of underweight rising.

Many orphans suffer from cycles of poverty as a result of illness or death of their parent(s). According to Kikafunda & Namusokel (2006) orphans and vulnerable children (OVC) are at increased risk of malnutrition and poor health. The evidence for the effect of orphanhood and child vulnerability on child nutrition is weak.

Generally orphans and vulnerable children are found in poorer communities but the differences in exposure to extreme poverty in the general population and OVC were relatively small and did not explain the greater malnutrition and ill health seen in OVC (Watts, Gregson, Saito, Lopman, Beasley & Monasch 2007).

It is generally held that a mother's presence is essential for health and survival chances of her children. They assure adequate growth by nurturing the

newborns, protecting them from infections, support during schooling and guide in adolescence. Both parents are essential for long-term growth and development of their children. These chances become substantially diminished for orphans who have lost their mothers in early in life and modestly diminished if they lost their fathers (Reher & Gonzalez-Quinones 2002). Termination of mothers input (especially single parent) leads to loss of income, lower nutritional levels, crowded households school dropouts, risky lifestyles. Risk is greatest at birth, remains high in the first year of life and noticeable in higher ages. Mortality in the first two years of life was 2.3 times higher than when mother was present; 1.9 times higher over the first 10 years of life.

Losing a father seems to be not a major life-threatening event for a child. This is more so if mother was infected with HIV as transmission from mother to child is high in poor countries. Chances are further diminished if child is HIV positive.

2.8 CONCLUSION

The literature review highlights the enormity of the orphanhood burden in sub-Saharan Africa. This region was concentrated on as it has the highest prevalence of the AIDS disease in the world. The complexity of orphanhood survival in this poor resourced region is further influenced by poverty, high unemployment, poor public health interventions and high prevalence of infectious diseases like tuberculosis, HIV/AIDS, malaria , measles and cholera.

The literature review further highlights the enormous research presently taking place regarding the plight of orphans and vulnerable children. It brings out the Impact of care, health, schooling, psychological, sexuality, household readjustments community interventions and government help: all trying to lessen the burden on orphans and vulnerable children. Community interventions and support seems to be significant in African countries and much of this is the long acceptance of traditional extended family system. Strains, however, are already

felt as the system is stretched to the limit. The literature review confirms the enormous strides communities in sub-Saharan Africa have made in dealing with the orphanhood crisis.

Due to their relative poor socio-economic conditions, there has been more self-reliance on extended family support whereas South Africa orphans rely primarily on Government financial support for their care. It seems South Africa has lagged behind other sub-Saharan Countries in community and family support. This is further compounded by the migration of peoples from rural to urban areas since 1994. The vulnerability between orphans and non-orphans in South African rural settings needs more research .

CHAPTER THREE

METHODOLOGY

3.1 INTRODUCTION

This chapter outlines the research procedures, study design and the methodological choices made for inclusions, exclusions, and the ethical considerations of the study.

3.2 RESEARCH PROCEDURES

3.2.1 Study design

A Cross-sectional study design was used to analyse secondary data from a longitudinal surveillance system of Africa Centre Demographic Information System (ACDIS). Several different parallel surveillance data of the entire population of all age groups were completed and available for year 2006. Only data for 2006 with the relevant datasets were used for the study. In June 2006, there were 85855 people under surveillance in the DSS of Hlabisa District. .

3.2.2 Study population

This included all individuals aged 15 years to 18 years appearing from the longitudinal surveillance system of Africa Centre Demographic Information System (ACDIS). There were 9004 adolescents (male and female) aged 15-18 years in 2006.

3.2.3 Study sample

Of these adolescents aged 15 -18 years, 8609 were taken to be study sample as 395 files had missing orphanhood status.

3.2.4 Data Collection Instrument

During their initial census visit, fieldworkers administered a set of questionnaires registering all main subjects at a BS. At six monthly intervals, the field workers updated information by using special questionnaires.

See appendix for a summary of the type of forms used in ACDIS data collection for the core dataset and their main purpose.

3.2.5 Data available in ACDIS

Data sets were referred to as analytical datasets as these were cleaned and ready for use. Core analytical datasets are listed in Annexure 1. A snapshot of the operational data at June 2006 led to the creation of an analytical database.

Datasets were grouped together in databases associated with a particular unit. Units from demography, orphan hood status, pregnancy, education, emigration, health (particularly HIV/AIDS), employment and socio-economy as relating to all adolescents aged 15 to 18 years were used.

3.2.6 Data analysis plan

Data are stored in a Microsoft SQL server database. See Annexure 1 for the various datasets used to analyse the variables. Analysis was performed in STATA. Continuous data with a normal distribution was assessed using T-test,

Mann Whitney test for non-normal distribution, Chi-squared for categorical variables and Fishers exact test if numbers were small. The effect of orphan hood on adolescents was assessed in variable and multivariable logistic regression analysis.

A socio-economic index was derived using principle component analysis (Colley and Lohnes 1971) on the basis of the number of assets owned by a household and the reported average expenditures of the household on a monthly basis on several commodities such as food, health care, electricity, water, energy and transport costs. Using this index adolescents were classified into quintiles. The first quintile represented adolescents in the least comfortable (poorest), while the fifth quintile represented adolescents in the most comfortable or richest households.

3.2.7 Inclusion and Exclusion criteria

The basic criteria for inclusion of the entire participatory population of 15 to 18 years were that one had to be a “Member” of a household whether resident or not but of the Demographic Surveillance Area. Those that migrated out of the area, if traceable, were followed up and included.

Participants were included even if they lived alone, in a homestead or in a bonded structure. They were also included even if they lived in many homes. Individuals were also included if they spent at least one night in residence in the 12 months prior to registration to qualify as members of the household. Domestic and herd-boys and others living in and were not part of the family were included. People living in schools, shops, churches were included. Those who died were excluded.

395 adolescents were excluded as their orphan hood status could not be determined. Some could not identify their mother and father, or survival status of

both mother and father was not known, some knew the survival status of father and not mother, while others knew the survival state of the mother but not the father.

3.3 ETHICAL CONSIDERATIONS

Access to ACDIS data was granted by the Director of Africa Centre after considering the purpose of study and its public health relevance. This was approved internally through a surveillance scientific meeting. The purpose of data analysis, methodology together with the research questions to be answered was presented.

ACDIS data were made accessible through a suite of over 50 detailed datasets which were safely and securely stored at Africa Centre.

ACDIS data to compare the vulnerability of adolescent orphans to adolescent non-orphans aged 15-18 years of 2006 was only used.

Data subjects gave informed consent for information to be collected and to be used for research purposes.

Use of ACDIS data was on the basis of a collaborative principle. All data requested were obtained in collaboration with members of Africa Centre. Data controllers had a dual responsibility: they protected the interests of subjects by safeguarding their confidentiality by not providing names or addresses: and made quality data available in a friendly format. Data analysis had to benefit scientific enquiry.

The Research Proposal was submitted to the Department of Public Health Research Ethics Committee and the University of Limpopo Medunsa Medical

Research Ethics Committee (MREC). The MREC of the University of Limpopo approved the project, number - MREC/H/207/2010: PG dated 4 November 2010. The close proximity of Africa Centre made it possible to do summary data and cross tabulations with the aid of their staff. Member and socio-economic status modules were obtained from Household Surveillance whilst sexual behavior, education and general health status modules were obtained from Individual Surveillance.

CHAPTER FOUR

RESULTS

4.1 INTRODUCTION

The first part of this report deals with all children 0-18 years in the Demographic Surveillance Area (DSA). It is then possible to map the demography of adolescents aged 15-18 years within the entire children population. By so doing one can follow the plight of orphans and non-orphans as they reach adolescence.

The socio-demographic characteristics, orphan hood status, education, sexuality, and health of adolescents identified their concerns and vulnerability. The assistance of a statistician contributed to data analysis.

4.2 PARTICIPANTS

In 2006, all children (male and female) aged 0-18 years, under DSA totaled 37647. Adolescents aged 15-18 years totaled 8609 and this constituted the participants while 395 adolescents were excluded.

4.3 PATTERNS OF DATA FOR EACH RESEARCH QUESTION- RESULTS

The results of the data are represented in this chapter. Usage of tables, figures and graphs were generated through SPSS and excel.

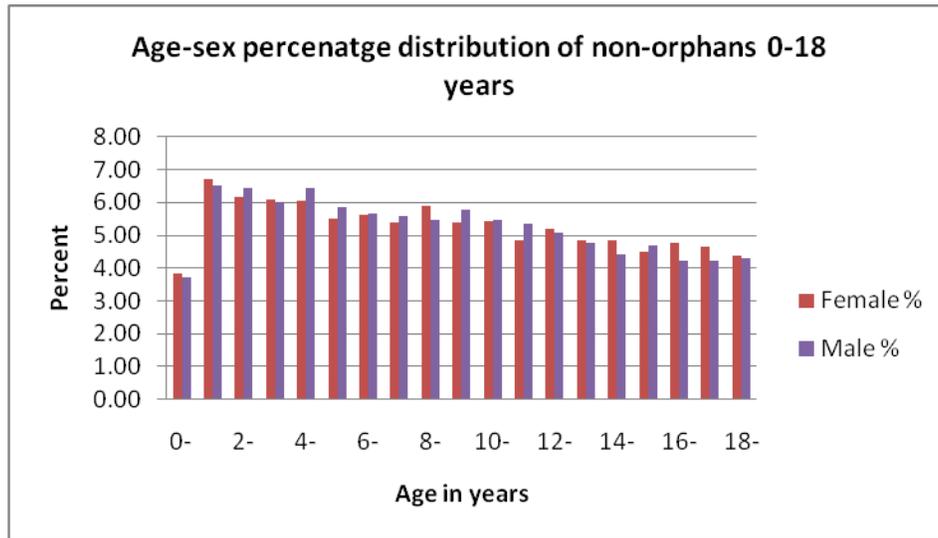
Table 1: Age-sex distribution of children 0-18 years by Orphan status 2006

| Age | Non-orphan | | | Orphan | | |
|--------------|---------------|---------------|---------------|--------------|--------------|---------------|
| | Female | Male | Total | Female | Male | Total |
| 0-11mth | 504 | 493 | 997 | 15 | 26 | 41 |
| | 881 | 870 | 1,751 | 73 | 55 | 128 |
| Year 1 | 793 | 859 | 1,652 | 133 | 144 | 277 |
| 2 | 808 | 858 | 1,666 | 83 | 81 | 164 |
| 3 | 800 | 802 | 1,602 | 116 | 123 | 239 |
| 4 | 793 | 859 | 1,652 | 133 | 144 | 277 |
| 5 | 720 | 778 | 1,498 | 179 | 181 | 360 |
| 6 | 735 | 756 | 1,491 | 240 | 192 | 432 |
| 7 | 705 | 744 | 1,449 | 241 | 212 | 453 |
| 8 | 774 | 728 | 1,502 | 291 | 268 | 559 |
| 9 | 706 | 767 | 1,473 | 333 | 314 | 647 |
| 10 | 712 | 727 | 1,439 | 352 | 361 | 713 |
| 11 | 634 | 713 | 1,347 | 367 | 382 | 749 |
| 12 | 679 | 677 | 1,356 | 395 | 387 | 782 |
| 13 | 635 | 637 | 1,272 | 456 | 431 | 887 |
| 14 | 633 | 587 | 1,220 | 467 | 425 | 892 |
| 15 | 588 | 622 | 1,210 | 456 | 492 | 948 |
| 16 | 627 | 562 | 1,189 | 486 | 533 | 1,019 |
| 17 | 610 | 561 | 1,171 | 496 | 481 | 977 |
| 18 | 572 | 572 | 1,144 | 497 | 454 | 951 |
| | | | | | | |
| Total | 13,116 | 13,313 | 26,429 | 5,676 | 5,542 | 11,218 |

For 3.5% (n=395) of the adolescents the researcher could not determine their orphanhood status. N=14 was because the researcher could not identify their mother and father ; n=6 the survival status of both the mother and the father was unknown; n=200 the researcher knew the survival status of the father but not of the mother; n=175 the researcher knew the survival status of the mother but not of the father.

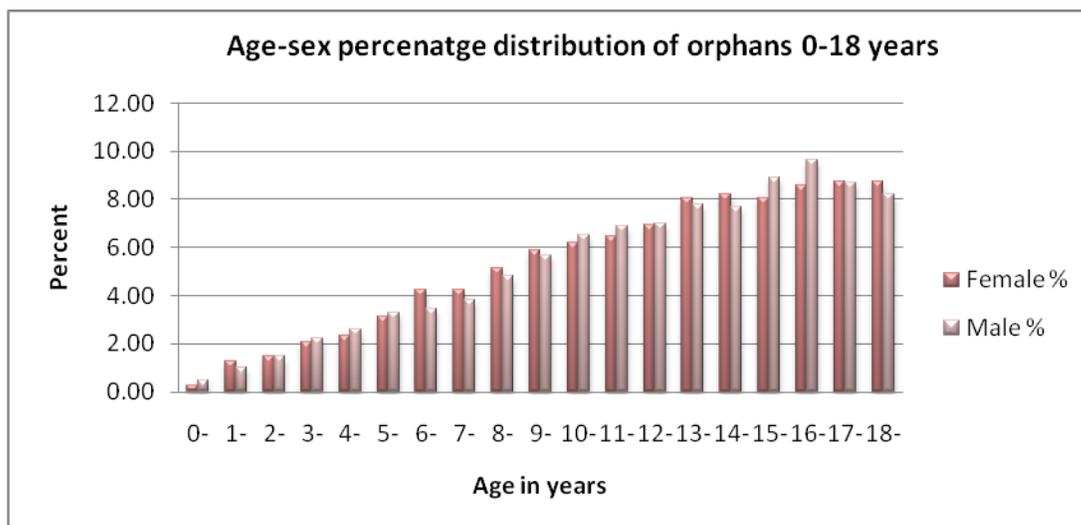
Graphs 1 and 2 were derived from Table 1.

Graph 1:



At one year of age the percentage of non-orphans is about 6.5%. There is a very gradual decrease up to age 14 years to near 5%, thereafter it stays constant throughout the adolescent age of 15-18 years.

Graph 2:



Graph 2 shows the percentage of adolescents (Orphans and non-orphans) aged 15-18 years to the entire children population of 0-18 years was 22.87%. The overall percentage of adolescent orphans in the entire children population of 0-18 years was 10.37%.

However, the percentage of adolescent orphans to adolescent non-orphans was 45.24%.

Table 2: Age distribution of children in groups by Orphan status

| Age 2006 | Total Non-Orphan % | Total Orphan % |
|-------------|--------------------|----------------|
| 0-4 years | 29.01 | 7.56 |
| 5-9 years | 28.04 | 21.68 |
| 10-14 years | 25.01 | 35.86 |
| 15-18 years | 17.83 | 34.72 |

The orphan group shows a significant increase from 7.56% in 0-4 years to 35.86% in 10-14 year group. 15-18 years (the group of study) shows a very slight

drop due to it being clustered in four years while the other groups totals were clustered in five years. The non-orphan groups show a consistent percentage.

Graph 3: Total Percentage Orphans vs Non-Orphans in graphic form

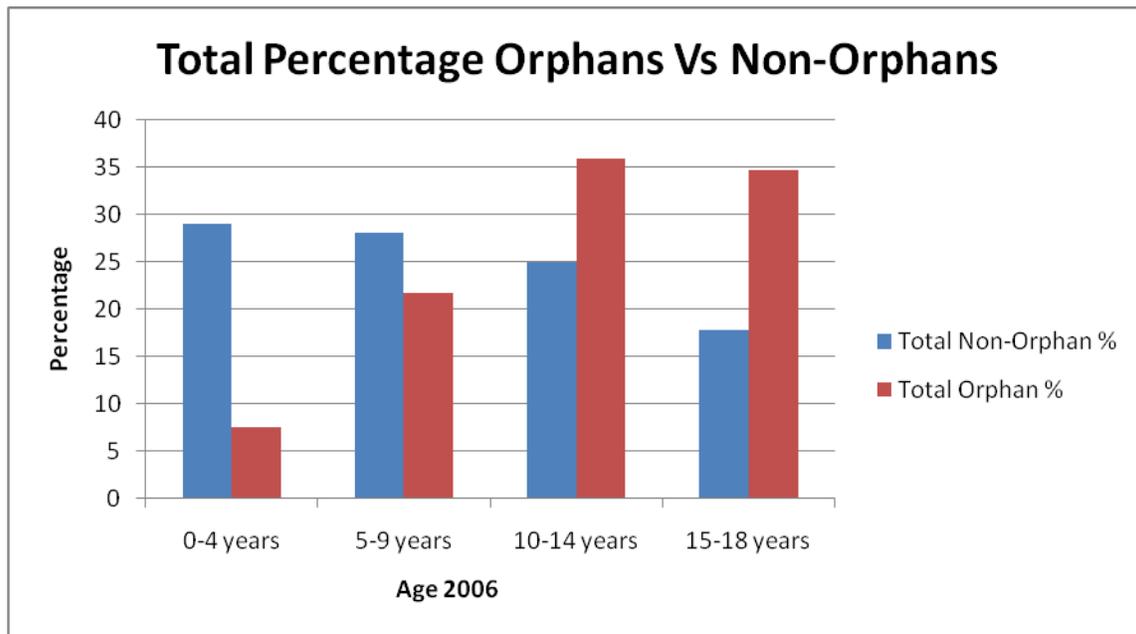


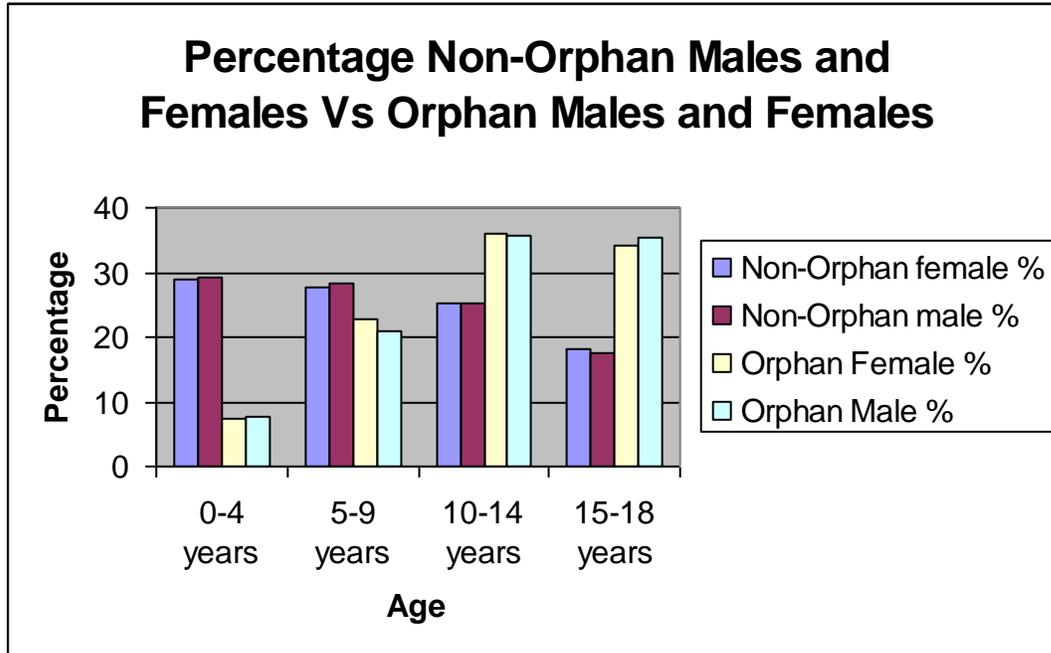
Table 3: Age-sex percentage distribution of children 0-18 years by Orphan status

| Age 2006 | Non-Orphan female % | Non-Orphan male % | Orphan Female % | Orphan Male % |
|-------------|---------------------|-------------------|-----------------|---------------|
| 0-4 years | 28.87 | 29.16 | 7.40 | 7.74 |
| 5-9 years | 27.75 | 28.34 | 22.62 | 21.06 |
| 10-14 years | 25.11 | 25.10 | 35.89 | 35.84 |
| 15-18 years | 18.28 | 17.40 | 34.09 | 35.37 |

There is an almost equal percentage of male and females in all age groups, whether orphans or non-orphans. The non-orphan age group show a constant percentage in the first three age groups. The fourth age group, aged 15-18 years shows a decline due to totals in four ages compared to five ages in the previous

groups. In the orphan age groups there is significant increase in orphanhood with age and peaks in the study age group of 15-18 years.

Graph 4: Non-Orphans vs Orphans by gender



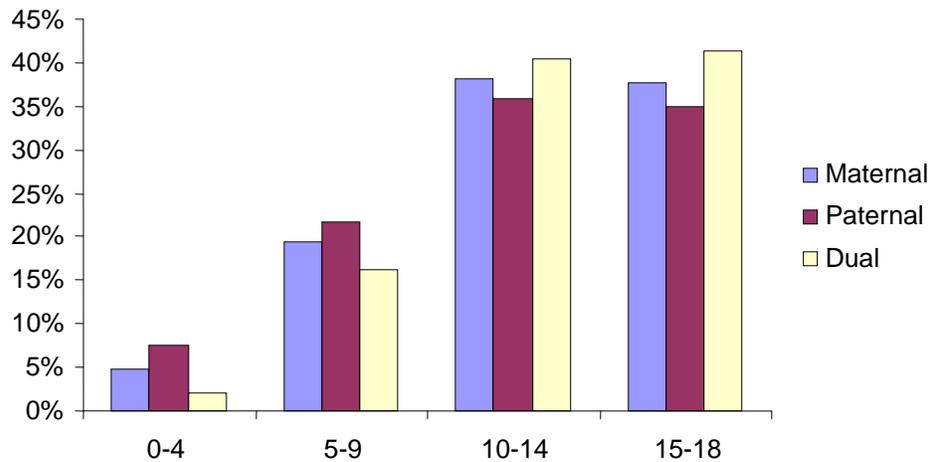
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In the orphan age groups there is significant increase in orphanhood with age and peaks in the study age group of 15-18 years.

Table 4: Age-sex distribution of Orphan children 0-18 years by Orphan type-2006

| Age | Maternal Orphans | | | Paternal Orphans | | | Dual Orphans | | | Grand |
|--------------|------------------|--------------|--------------|------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | Female | Male | Total | Female | Male | Total | Female | Male | Total | |
| 0-11mth | 1 | 5 | 6 | 13 | 21 | 34 | 1 | | 1 | 41 |
| Year 1 | 17 | 4 | 21 | 53 | 49 | 102 | 3 | 2 | 5 | 128 |
| 2 | 22 | 17 | 39 | 56 | 60 | 116 | 5 | 4 | 9 | 164 |
| 3 | 33 | 27 | 60 | 78 | 88 | 166 | 5 | 8 | 13 | 239 |
| 4 | 24 | 28 | 52 | 100 | 100 | 200 | 9 | 16 | 25 | 277 |
| 5 | 33 | 39 | 72 | 131 | 118 | 249 | 15 | 24 | 39 | 360 |
| 6 | 46 | 44 | 90 | 154 | 112 | 266 | 40 | 36 | 76 | 432 |
| 7 | 52 | 55 | 107 | 146 | 117 | 263 | 43 | 40 | 83 | 453 |
| 8 | 52 | 68 | 120 | 187 | 153 | 340 | 52 | 47 | 99 | 559 |
| 9 | 62 | 75 | 137 | 212 | 177 | 389 | 59 | 62 | 121 | 647 |
| 10 | 70 | 79 | 149 | 203 | 195 | 398 | 79 | 87 | 166 | 713 |
| 11 | 66 | 86 | 152 | 203 | 202 | 405 | 98 | 94 | 192 | 749 |
| 12 | 79 | 81 | 160 | 216 | 212 | 428 | 100 | 94 | 194 | 782 |
| 13 | 72 | 92 | 164 | 256 | 221 | 477 | 128 | 118 | 246 | 887 |
| 14 | 109 | 84 | 193 | 237 | 223 | 460 | 121 | 118 | 239 | 892 |
| 15 | 87 | 95 | 182 | 237 | 262 | 499 | 132 | 135 | 267 | 948 |
| 16 | 79 | 120 | 199 | 275 | 273 | 548 | 132 | 140 | 272 | 1019 |
| 17 | 93 | 103 | 196 | 271 | 236 | 507 | 132 | 142 | 274 | 977 |
| 18 | 110 | 93 | 203 | 255 | 246 | 501 | 132 | 115 | 247 | 951 |
| Total | 1,107 | 1,195 | 2,302 | 3,283 | 3,065 | 6,348 | 1,286 | 1,282 | 2,568 | 11218 |

Graph 5: Percentage distribution of orphans by age group & orphan type



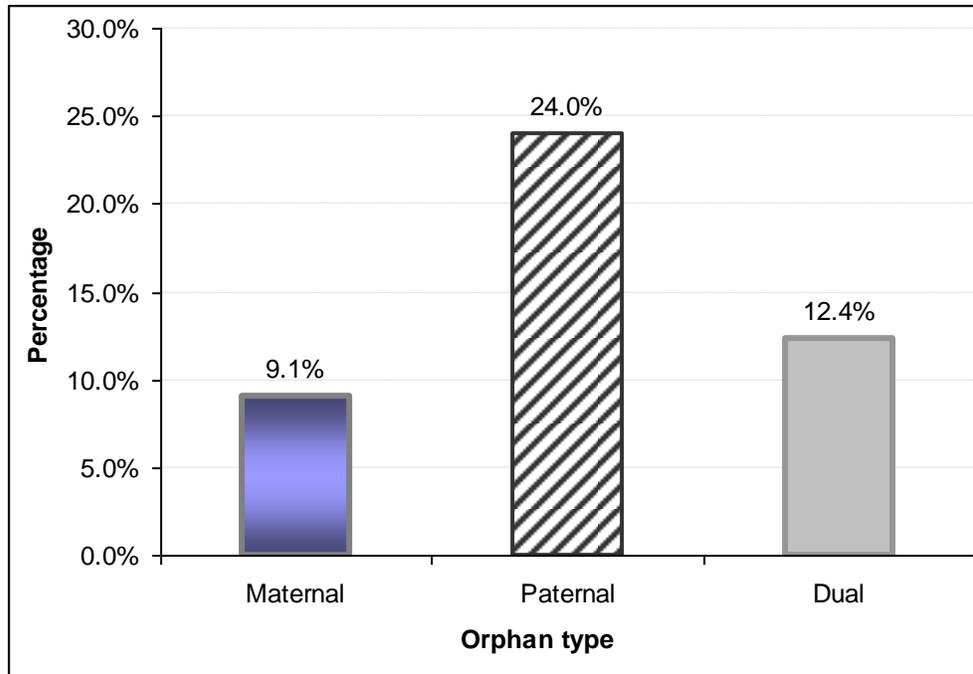
Maternal Orphan: A child whose mother has died

Paternal Orphan: A child whose father has died

Dual: Both parents have died.

There is an increase in all type of orphans as age increases.-around 5% in the 0-4 year group to around 40% in the 15-18 year group.

Graph 6: Proportion of orphan type among adolescent children 15-18 years



Paternal orphans were highest (24%), followed by dual (12.4%) and then maternal (9.1%) in the adolescent age group.

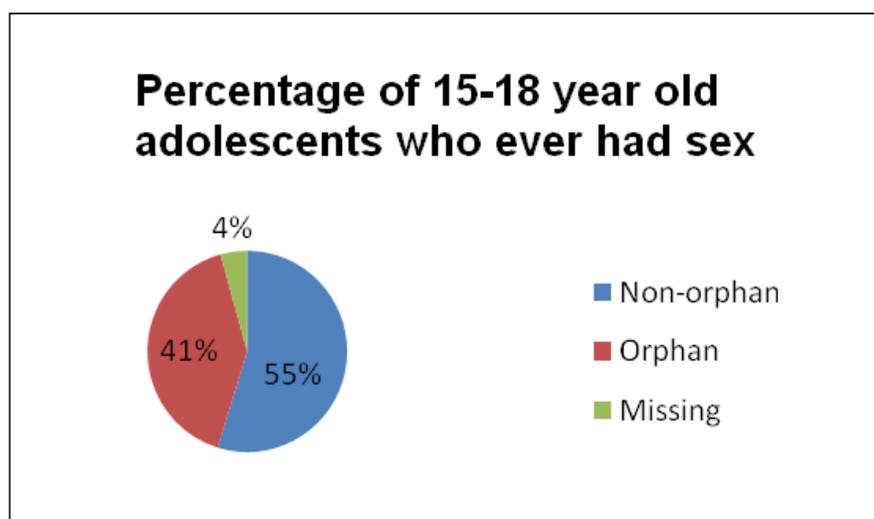
Table 5: Children 15-18 year old who have ever had sex by orphan status

| Ever Had | Non-orphan | | | Orphan | | | Missing | | |
|----------------|--------------|--------------|--------------|--------------|--------------|--------------|------------|------------|------------|
| | Female | Male | Total | Female | Male | Total | Female | Male | Total |
| Missing | 49 | 42 | 91 | 53 | 47 | 100 | 7 | 1 | 8 |
| No | 798 | 768 | 1,566 | 549 | 594 | 1,143 | 61 | 59 | 120 |
| Not Applicable | 373 | 428 | 801 | 235 | 284 | 519 | 28 | 30 | 58 |
| Yes | 297 | 206 | 503 | 247 | 205 | 452 | 24 | 22 | 46 |
| Total | 1,517 | 1,444 | 2,961 | 1,084 | 1,130 | 2,214 | 120 | 112 | 232 |

Missing Data was due to non-recording of response on data sheet.

Not applicable response elicited as participants refused to answer.

Graph 7: Percentage of 15-18 year old adolescents who ever had sex



Among the 15-18 year olds orphans have a 20% higher odds of ever having had sex than non-orphans (Odds ratio 1.17, 95% confidence interval 1.01-1.35).

Table 6: Residency status of children 15-18 years by orphan status

| Membership | Non-orphan | | | | Orphan | | | | Missing | | |
|--------------|--------------|--------------|-----------------|--------------|--------------|--------------|-----------------|--------------|------------|------------|------------|
| | FEM | MAL | % Res / Non-Res | Total | FEM | MAL | % Res / Non-Res | Total | FEM | MAL | Total |
| Non-Resident | 722 | 639 | 28.65% | 1,361 | 695 | 590 | 32.74% | 1,285 | 134 | 96 | 230 |
| Resident | 1,707 | 1,682 | 71.35% | 3,389 | 1,262 | 1,378 | 67.26% | 2,640 | 131 | 136 | 267 |
| Total | 2,429 | 2,321 | 100% | 4,750 | 1,957 | 1,968 | 100% | 3,925 | 265 | 232 | 497 |

Among 15-18 year old orphans were more likely to out-migrate (be non-residents) from the surveillance area than non-orphans (Odds ratio 1.14, 95% CI 1.05-1.25). 32.74% of orphans migrated as compared to non-orphans (28.65%). Non-orphans were more resident (71.35%) than orphans (67.26%). Missing-Residency status was not clear as some children shared residence within and

outside the DSA. Orphan status of some children not clear as whereabouts of parent(s) was unknown.

| Reason for not attending school | Female | | | Male | | | Total | | | | |
|--|------------|------------|----------|------------|------------|----------|------------|--------|------------|--------|----------|
| | Non-orphan | Orphan | Missing | Non-orphan | Orphan | Missing | Non-orphan | % | Orphan | % | Missing |
| Caring for other household members child | 3 | 2 | | | | | 3 | 0.64% | 2 | 0.46% | |
| Caring for sick or injured | 1 | 2 | | 1 | 2 | | 2 | 0.42% | 4 | 0.91% | |
| Looking for work | 29 | 25 | | 29 | 19 | | 58 | 12.29% | 44 | 10.05% | |
| Nothing (Not looking for work) | 141 | 141 | 2 | 120 | 106 | | 261 | 55.30% | 247 | 56.39% | 2 |
| Pregnancy/Caring for own child | 58 | 43 | | 2 | 2 | | 60 | 12.71% | 45 | 10.27% | |
| Retrenched | | 1 | | | | | | | 1 | 0.23% | |
| Sick or injured | 12 | 7 | | 13 | 8 | | 25 | 5.30% | 15 | 3.42% | |
| Working for money | 16 | 23 | | 25 | 21 | | 41 | 8.69% | 44 | 10.05% | |
| _don't know | 11 | 20 | | 4 | 6 | 1 | 15 | 3.18% | 26 | 5.94% | 1 |
| _other | 2 | 3 | | 5 | 6 | | 7 | 1.48% | 9 | 2.05% | |
| _refused | | 1 | | | | | | | 1 | 0.23% | |
| Missing | 13 | 21 | 0 | 15 | 22 | 0 | 28 | 5.93% | 43 | 9.82% | 0 |
| Total | 273 | 268 | 2 | 199 | 170 | 1 | 472 | | 438 | | 3 |

Table 7: Reasons for 15-18 year old not being in school, 2006

Among the 15-18 year olds orphans are 10% more likely to have even been pregnant than non-orphans (Odds ratio 1.08, 95% CI 0.84-1.38). However, this difference was not statistically significant at 95% confidence interval. 5.3% of adolescent non-orphans compared to 3.42% of orphans were sick and not attending school.

Table 8: Highest level of schooling attained by 15-18 year old adolescents, 2006

| Level | Female | | | Male | | | Total | | | | |
|----------------------|------------|--------|---------|------------|--------|---------|------------|--------|--------|--------|---------|
| | Non-orphan | Orphan | Missing | Non-orphan | Orphan | Missing | Non-orphan | % | Orphan | % | Missing |
| DKN | 92 | 104 | 1 | 76 | 105 | 3 | 168 | 3.77% | 209 | 5.84% | 4 |
| G01 | 6 | 5 | | 7 | 5 | | 13 | 0.29% | 10 | 0.28% | |
| G02 | 7 | 9 | 1 | 9 | 12 | | 16 | 0.35% | 21 | 0.56% | 1 |
| G03 | 8 | 12 | | 31 | 31 | 1 | 39 | 0.88% | 43 | 1.20% | 1 |
| G04 | 28 | 26 | | 45 | 43 | | 73 | 1.64% | 69 | 1.93% | |
| G05 | 33 | 44 | | 68 | 97 | 1 | 101 | 2.27% | 141 | 3.93% | 1 |
| G06 | 87 | 84 | | 161 | 129 | | 248 | 5.57% | 213 | 5.95% | |
| G07 | 192 | 196 | 4 | 283 | 269 | 1 | 475 | 10.66% | 465 | 12.99% | 5 |
| G08 | 343 | 278 | 2 | 397 | 322 | 2 | 740 | 16.61% | 600 | 16.75% | 4 |
| G09 | 507 | 366 | 3 | 471 | 317 | 1 | 978 | 21.95% | 683 | 19.08% | 4 |
| G10 | 509 | 350 | 4 | 336 | 264 | | 845 | 18.96% | 614 | 17.16% | 4 |
| G11 | 288 | 190 | | 204 | 112 | | 492 | 11.04% | 302 | 8.43% | |
| G12 | 149 | 93 | | 88 | 58 | 2 | 237 | 5.32% | 151 | 4.22% | 2 |
| Less than One Year | 4 | 6 | | 5 | 11 | | 9 | 0.20% | 17 | 0.46% | |
| Never Went to School | 7 | 14 | | 13 | 22 | | 20 | 0.45% | 36 | 1.0% | |
| Refused | 1 | 1 | | 1 | 4 | | 2 | 0.04% | 5 | 0.14% | |
| Missing | 1 | 1 | 0 | 0 | 2 | 0 | 1 | 0.02% | 3 | 0.08% | 0 |
| Total | 2261 | 1778 | 15 | 2195 | 1801 | 11 | 4456 | 100% | 3579 | 100% | 26 |

87.1% of adolescents attended school. Most attained Grade 9 but, thereafter, dropped towards Grade 12. However, the percentages of adolescent orphans was less than non-orphans from Grade 9 to 12.(19.08% to 4.22% for orphans and 21.95% to 5.32% for non-orphans)

CHARACTERISTICS OF SAMPLED ADOLESCENTS

Table 9: Education level achieved by orphan and non-orphans

| Education level | Non-orphan | | Orphan | | Total | |
|--------------------|---------------|------|--------|------|-------|------|
| | No. | % | No. | % | No. | % |
| | <1 year/Never | 38 | 0.6 | 67 | 1.3 | 105 |
| Grade 1-7 | 1,211 | 20.6 | 1,253 | 24.6 | 2,464 | 22.5 |
| Grade 8-10 | 3,117 | 53 | 2,571 | 50.5 | 5,688 | 51.9 |
| Grade 11-12 | 1,293 | 22 | 929 | 18.3 | 2222 | 20.3 |
| Don't know/refused | 216 | 3.7 | 265 | 5.2 | 481 | 4.4 |
| Missing | 4 | 0.1 | 4 | 0.1 | 8 | 0.1 |

About 50% of adolescents received education up to Grade 8-10 but less were orphans than non-orphans. About 20% of adolescents reached matriculation and there was a higher number of non-orphans reaching Grade 11-12.

The poor economic status of a rural area prevents adolescents from completing schooling. This is more prominent among orphans as they lose their parent(s) due to death and this deprives them further access to financial support.

Graph 8: Percentage Orphans vs. Non Orphans in secondary grades

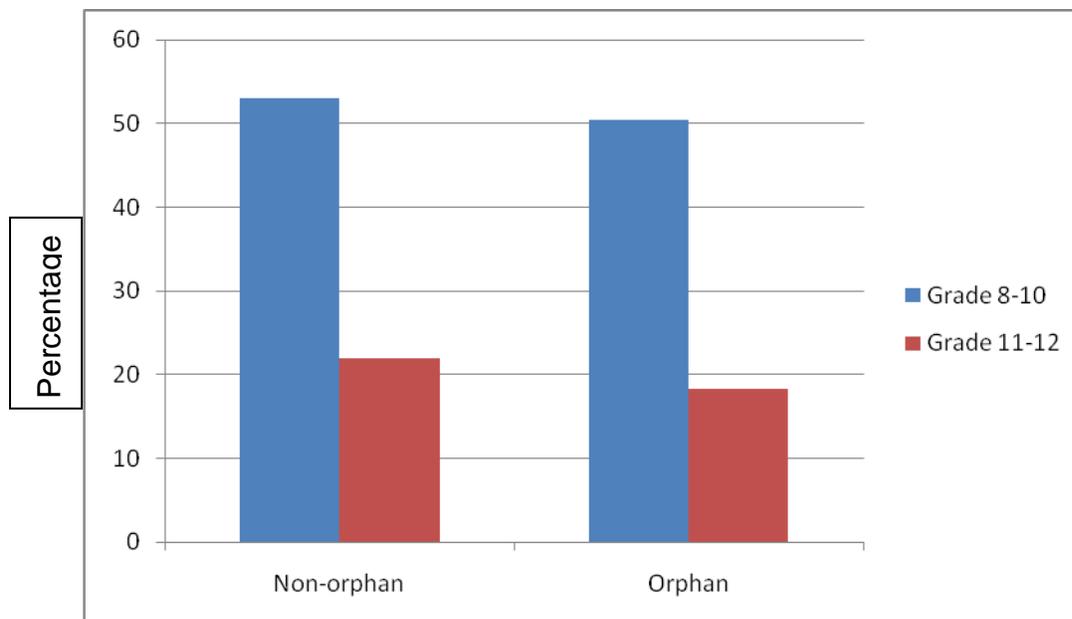


Table 10: Economic activity by adolescents

| Economic activity | | | | | | |
|-----------------------------|------------|------|--------|------|-------|------|
| | Non-orphan | | Orphan | | Total | |
| | No. | % | No. | % | No. | % |
| In school | 4,750 | 80.8 | 3,939 | 77.4 | 8,689 | 79.2 |
| Not in school, but employed | 105 | 1.8 | 90 | 1.8 | 195 | 1.8 |
| Not in school & unemployed | 897 | 15.3 | 911 | 17.9 | 1,808 | 16.5 |
| DKN/MIS | 127 | 2.2 | 149 | 2.9 | 276 | 2.5 |

A larger percentage of non-orphans were at school than orphans. Loss of family income forces orphans to leave school as school fees, uniform and stationary are not affordable after death of parent(s). Whatever money available is used for essentials such as shelter, food and clothing.

A higher percentage of orphans are not at school and unemployed than non-orphans. Seeking a job was difficult due to high unemployment in rural areas.

Table 11: Marital status of adolescents

| Marital status | | | | | | |
|-----------------------|------------|------|--------|------|-------|------|
| | Non-orphan | | Orphan | | Total | |
| | No. | % | No. | % | No. | % |
| Ever married | 14 | 0.2 | 7 | 0.1 | 21 | 0.2 |
| Never married | 3,508 | 59.7 | 3,135 | 61.6 | 6,643 | 60.6 |
| Not applicable | 2,356 | 40.1 | 1,946 | 38.2 | 4,302 | 39.2 |
| Don't know/Missing | 1 | 0 | 1 | 0 | 2 | 0 |

Majority of adolescents were not married.

A slightly higher percentage of orphans never married than non-orphans.

Table 12: Partnership patterns between adolescent orphans and non-orphans

| Partnership patterns | | | | | | |
|----------------------|-------------|------|---------|------|-------|------|
| | Non-orphans | | Orphans | | TOTAL | |
| | N | % | N | % | | % |
| No partner | 4,685 | 79.7 | 3,925 | 77.1 | 8,610 | 78.5 |
| Casual partner | 27 | 0.5 | 23 | 0.5 | 50 | 0.5 |
| Regular partner | 1,058 | 18 | 1,011 | 19.9 | 2,069 | 18.9 |
| DKN/RFS | 109 | 1.9 | 130 | 2.6 | 239 | 2.2 |

Sexuality was high among adolescents (slightly more in orphans), albeit with a regular partner. A slightly higher percentage of orphans had a regular partner.

Table 13: Sexuality of adolescents

| Ever had sex | | | | | | |
|--------------|------------|------|--------|------|-------|------|
| | Non-orphan | | Orphan | | Total | |
| | No. | % | No. | % | No. | % |
| No | 1,696 | 28.8 | 1,287 | 25.3 | 2,983 | 27.2 |
| Yes | 4,183 | 71.2 | 3,802 | 74.7 | 7,985 | 72.8 |

Generally sexual experience is very high among adolescents with orphans (74.7%) higher than non-orphans. (71.2%).

Table 14: Residency status of adolescent orphans and non-orphans

| Residency status | | | | | | |
|------------------|------------|------|--------|------|-------|------|
| | Non-Orphan | | Orphan | | Total | |
| | No. | % | No. | % | No. | % |
| Non-Resident | 1,731 | 29.4 | 1,647 | 32.4 | 3,378 | 30.8 |
| Resident | 4,148 | 70.6 | 3,442 | 67.6 | 7,590 | 69.2 |

There were more non-orphans in their residence than orphans. More orphans lived away from their homes and were cared for mainly by their grandparents.

Table 15: Self-perception of economic status of adolescents

| Self-perceived economic status | | | | | | |
|--------------------------------|------------|------|--------|------|-------|------|
| | Non-Orphan | | Orphan | | Total | |
| | No. | % | No. | % | No. | % |
| Poor | 2,068 | 35.2 | 2,033 | 39.9 | 4,101 | 37.4 |
| Moderate | 3,193 | 54.3 | 2,616 | 51.4 | 5,809 | 53 |
| Comfortable | 558 | 9.5 | 415 | 8.2 | 973 | 8.9 |

Orphans perceived themselves as poorer (39.9%) than those adolescents living with their parents (35.2%). More non-orphans felt that they were economically better off than orphans and lived more comfortably, (9.5% to 8.2% respectively).

Table 16: Socio-economic status of adolescents using PCA

| Socio-economic status using PCA | | | | | | |
|---------------------------------|------------|------|--------|------|-------|------|
| | Non-Orphan | | Orphan | | Total | |
| | No. | % | No. | % | No. | % |
| Low | 1,696 | 28.8 | 1,675 | 32.9 | 3,371 | 30.7 |
| Medium | 2,085 | 35.5 | 1,797 | 35.3 | 3,882 | 35.4 |
| High | 2,098 | 35.7 | 1,617 | 31.8 | 3,715 | 33.9 |

PCA confirms that orphans had a poorer socio-economic status (32.9%) than non-orphans (28.8%) in the low category and higher category (31.8% orphans to 35.7% non-orphans)

Table 17: Number of adolescents accessing government grants, 2006

| Level | Female | | | Male | | | Total | | | | |
|------------------------------|-------------|-------------|-----------|-------------|-------------|-----------|-------------|--------------|-------------|--------------|-----------|
| | Non-orphan | Orphan | Missing | Non-orphan | Orphan | Missing | Non-orphan | % | Orphan | % | Missing |
| Child Support | 12 | 19 | | 10 | 11 | | 22 | 0.49 % | 30 | 0.84 % | |
| Disability (Care Dependency) | 7 | 17 | | 12 | 14 | | 19 | 0.43 % | 31 | 0.87 % | |
| Foster Care | 3 | 43 | | 1 | 58 | 1 | 4 | 0.09 % | 101 | 2.82 % | 1 |
| Old Age Pension | 1 | 1 | | 1 | | | 2 | 0.04 % | 1 | 0.03 % | |
| _Don't Know | 21 | 16 | | 18 | 19 | | 39 | 0.87 % | 35 | 0.98 % | |
| _Missing | 37 | 24 | 1 | 24 | 24 | | 61 | 1.37 % | 48 | 1.34 % | 1 |
| _None | 2,146 | 1,614 | 11 | 2,067 | 1,636 | 8 | 4,213 | 94.53 % | 3,250 | 90.7 % | 19 |
| _Refused | 1 | | | 4 | 1 | | 5 | 0.11 % | 1 | 0.03 % | |
| Missing | 34 | 45 | 3 | 58 | 40 | 2 | 92 | 2.06 % | 85 | 2.37 % | 5 |
| Total | 2262 | 1779 | 15 | 2195 | 1803 | 11 | 4457 | 100 % | 3582 | 100 % | 26 |

The above table indicates that a higher percentage of adolescent orphans were assessing Government grants than percentage of non-orphans adolescents in child support, disability and foster care categories. However, the total percentage in these categories was 4.53% by orphans and 1.61% by non-orphans.

AGE ADJUSTED ODDS RATIO

| | OR | 95 % CI |
|---------------------|------|-------------|
| Ever had sex | | |
| Maternal | 1.25 | 1.07 - 1.47 |
| Paternal | 1.15 | 1.04 - 1.27 |
| Dual | 1.29 | 1.13 - 1.48 |

All types of orphans were likely to have had sex than non-orphans.

| Having an older partner | | |
|--------------------------------|------|-------------|
| Maternal | 0.87 | 0.61 - 1.24 |
| Paternal | 0.89 | 0.71 - 1.12 |
| Dual | 0.97 | 0.72 - 1.31 |

Having an older partner was not significant as compared to non-orphans.

| Had only one partner last year | | |
|---------------------------------------|------|-------------|
| Maternal | 1.21 | 0.96 - 1.53 |
| Paternal | 1.32 | 1.13 - 1.53 |
| Dual | 1.38 | 1.13 - 1.68 |

Having one partner was significant for paternal and dual orphans.

Mother seems to have a controlling influence on sexuality of the adolescents.

| Had multiple partners last year | | |
|--|------|-------------|
| Maternal | 1.75 | 1.04 - 2.93 |
| Paternal | 1.41 | 0.97 - 2.05 |
| Dual | 1.35 | 0.83 - 2.22 |

Adolescents who have lost a mother are more likely to have multiple partners than adolescents whose mother is alive.

| Had first sex before age 15 | | |
|------------------------------------|------|-------------|
| Maternal | 1.76 | 1.08 - 2.86 |
| Paternal | 1.48 | 1.1 – 2 |
| Dual | 0.92 | 0.63 - 1.35 |

Children who have lost a mother or father had sex at a younger age before adolescence.

Loss of love and income led to seeking affection and financial security outside the home.

| Ever been pregnant | | |
|---------------------------|------|-------------|
| Maternal | 0.9 | 0.7 - 1.15 |
| Paternal | 1.17 | 1 - 1.37 |
| Dual | 1.02 | 0.82 - 1.25 |

There was no statistical differences in the odds of ever been pregnant (female only) in both orphan and non-orphan groups.

| Has fathered child | | |
|---------------------------|------|-------------|
| Maternal | 0.72 | 0.21 - 2.42 |
| Paternal | 1.15 | 0.6 - 2.21 |
| Dual | 0.51 | 0.15 - 1.7 |

No statistically significant difference in fathering a child (male only) in orphan and non-orphan adolescents.

| Ever had a live birth | | |
|------------------------------|------|-------------|
| Maternal | 0.88 | 0.69 - 1.13 |
| Paternal | 1.17 | 1 - 1.37 |
| Dual | 1.03 | 0.83 - 1.27 |

| Had first sex after mother's death | | |
|---|------|------------|
| Maternal | 0.68 | 0.36 - 1.3 |

| Had first sex after father's death | | |
|---|-----|-------------|
| Paternal | 1.1 | 0.62 - 1.94 |

Ever being pregnant, having a live birth, fathering a child, and having first sex after mothers or fathers death was not statistically different in both orphans and non-orphans.

| HIV positive | | |
|---------------------|------|-------------|
| Maternal | 1.18 | 0.7 - 2 |
| Paternal | 1.5 | 1.07 - 2.09 |
| Dual | 1.83 | 1.23 - 2.72 |

Acquiring HIV infection was likely among paternal and dual orphans than maternal orphans. Lack of supervision of mother led to a higher vulnerability in adolescent orphans.

CHAPTER FIVE

DISCUSSION, CONCLUSIONS AND IMPLICATIONS

5.1 Introduction

The research procedures and the findings attempted to compare the vulnerability of orphaned adolescents and non-orphaned adolescents in the rural Hlabisa District of South Africa.

This study was undertaken to find out:

- The proportion of adolescents who are orphans, orphan types, and the differences in the age-sex distribution as compared to non-orphaned adolescents.
- Education level achieved and the risk of drop-out of both groups and reasons for not being at school.
- Sexuality in relation to ever had sex, partnership patterns, marital status and pregnancy.
- The socio-economic status, residency, employment and out migrations of both orphans and non-orphans.
- Dependence on Government grants to sustain a livelihood.
- The sickness and especially the HIV/AIDS status of adolescent orphans and non-orphans.

5.2 CONCLUSIONS ABOUT EACH RESEARCH QUESTION

5.2.1 ORPHAN ESTIMATES

The percentage distribution of male and female with age was similar within non-orphans and a similar pattern was seen among the orphans. 22.87% of all children (n=37647) 0-18 years were in the age group of interest in this study (15-18 years). The overall orphanhood prevalence in 2006 was 10.37%. Non-orphans clustered in age groups show a constant percentage (27%-25%) in the first three age groups (0-11months to 4 years;5-9 years;10-14 years). The fourth age group, aged 15-18 years shows a decline(18%) due to totals in four ages compared to five ages in the previous groups.

The prevalence of orphanhood increased significantly with age and peaked around the 16 year old group. 45.24 % were orphans in the group of interest for this study (15-18 years) n=8609.

There was also a general increase in all types of orphans in groups with age (8% to 37%). In the age group 15-18 years there were greater paternal orphans, followed by dual then maternal orphans.

In rural areas fathers seek employment in towns and cities and are at risk of acquiring HIV infection. According to Wilson, Naidoo, Bekker, Cotton,& Maartens (2002), migration causes disruption to the way of life and this contributes to HIV epidemic.

In 2006 the primary cause of death among males and female in Hlabisa was HIV/AIDS and this single cause accounted for about 40 % of adult deaths (Heller, 2008).

In a high prevalence area HIV is the primary cause of adult mortality and this was verified by Case et al.2006. In the natural history of the HIV epidemic, the median time to develop AIDS from being infected with HIV is usually 8-10 years and death follows a few years later (Wilson, Cotton & Maartens, 2002). This explains that the peak of orphanhood in children is in adolescence.

5.2.2 EDUCATION AND RISK OF DROP-OUT FROM SCHOOLING

In the age group 15-18 years, majority of the adolescents acquired education up to Grade 9 (21.95% among non-orphans and 19.08% among orphans). Thereafter both groups had a gradual drop in attaining higher education from grade 10 to 12. The reason could be the cost of education is higher in the upper grades. In poor areas education becomes less affordable. Furthermore, attaining a higher level of education without an employment opportunity in a rural area seems fruitless to acquire higher grades at school.

Fewer orphans attained a matriculation education than non-orphans (4.22% compared to non-orphans at 5.32%).

This concurs with a study in Kenya indicating that orphans, fostered children and children with HIV- infected parents are significantly less likely to attend school than non-orphaned, non-fostered children of HIV negative parents (Mishra, Arnold, Otieno & Hong,2007). A further explanation being that the loss of parent(s) lead to loss of income and attaining higher grades becomes inevitable.

A community based study in northern Uganda showed that inadequate feeding affected the orphan's school performance. Other constraints were the heavy workload of orphans at home led to late arrival of school. Lack of school uniforms added to drop-out while lack of financial support and lack of psycho-social support contributed further (Oleke, Blystad, Fylkesnes,& Tumwine, 2007).

Tertiary education is only possible for the few that may acquire a bursary. Majority of adolescents left school and did nothing (56.39 % among orphans and 55.3% among non – orphans.) The higher percentage among orphans is understandable as affordability to education is less as income drops and loss of parent, especially a mother, has a direct effect on education.

More orphans were working (10.05%) than non-orphans (8.69%). 12.29% non-orphans compared to orphans (10.05%) were looking for work. This could be that non-orphans had the means and finance to seek employment in towns and cities.

Pregnancy accounted for a significant drop-out from school. Non-orphans adolescents had a higher pregnancy rate of 12.71% than orphans (10.27%).

5.2.3 SEXUALITY

Adolescent orphans were more likely to have ever had sex while there was no statistical difference in the odds of ever being pregnant (female only) and fathering a child (male only). In Zimbabwe the impact of orphan girl's status as compared to non-orphans girls on education, risk behaviour, pregnancy and prevalence of HIV showed that maternal orphans were more likely to be sexually active, to have STI, to have been pregnant and infected with HIV. Paternal girl orphans were more likely to have been homeless and to be out of school (Kang, Dunbar, Laver,& Padian, 2008).

Without parents, supervision is compromised especially if orphans live with their grandparents. There was genuine risk of acquiring STI and HIV.

5.2.4 SOCIO-ECONOMIC CHARACTERISTICS

The odds of out-migration were higher among orphans (32.74%) than non-orphans (28.65%). 1.8% of both orphans and non-orphans were employed.

The socio-economic index of PCA highlights the reality that orphans are in lower socio-economic status. Even in the high categories orphans were poorer than non-orphans. Case, Paxson & Abeidinger (2002), stated that orphans tend to live in poorer households than non-orphans. This is an affirmation that orphans have decreased family income after the death of a parent and this is probably worsened with the loss of a second parent.

Loss of income on death of parent(s) leads to severe economic constraints. Out migration becomes necessary, mainly to towns and cities, to seek a livelihood. According to Shetty & Powell (2009), children orphaned as a result of loss of parent due to AIDS are prone to malnutrition, poor health, migration, poor schooling and abuse.

Orphans are vulnerable as they are at risk of being taken advantage of. Coming from a rural setting and trip to cities can be intimidating. These adolescents are preyed upon as they have no relatives or friends they know. Seeking a shelter with limited money may force orphans to become "street-children". Female are more vulnerable as they may turn to prostitution to earn a livelihood. Vulnerable children may be subjected to substance abuse drugs and alcohol. Acquiring sexually transmitted infections (including HIV) is a possibility. Intravenous drug users among addicts are a direct risk for HIV infection.

5.2.5 DEPENDENCE ON GOVERNMENT GRANTS

The loss of income after the demise of a parent(s) and the relative small percentage of orphans accessing Government grants puts a financial burden on care givers and relatives looking after these adolescents. A campaign is needed to educate and encourage accessing of grants by caregivers of deserving children. The Lesotho Government has introduced the Lesotho Child Grant Programme to provide poor households caring for orphans and vulnerable children with a quarterly payment of malote 360 (US \$ 38) ,(Africa Press Organization 2009).

The age of 15-18 years have a sizeable financial requirement in secondary school fees, more expensive uniforms, more extra-curricular activities, and a demanding social life. Peer pressure to wear designer clothes, to have the latest mobile phone and to attend parties adds to the financial requirement.

Orphans who do not such support become depressed, withdrawn, drop grades in school and if not supported at a social and community level can make them suicidal as well.

5.2.6 HEALTH STATUS

The low prevalence of being sick (ascertained by school absenteeism) in both orphans and non-orphans could be due to the general ailments in a young population e.g. influenza, upper respiratory tract infections, gastroenteritis and minor injuries like sprains, bruises.

In Uganda fevers, diarrhoea and skin conditions were the common ailments among children. NGO supported sub-county had a better health outcome as measured by these ailments for both orphans and non-orphans than a sub-county not supported by NGO caregivers. Majority of supported orphan caregivers consulted village clinics with a better health outcome while non-NGO

supported caregivers resorted to self-administered herbal medication resulting in poorer health outcomes (Muhwezi, Muhangi, & Mugumya, 2009).

If HIV is acquired by mother to child transmission at birth, then the life expectancy of children is less than 10 years.

Adolescents usually acquire HIV infections by heterosexual contact, intravenous drug abuse by sharing syringes and by homosexual relationships which seems to be rising. Adolescent orphans (especially paternal and dual orphans) had a higher prevalence of HIV infection than non-orphans. The sexual risk behaviour of adolescents has also a probability of acquiring other sexually transmitted diseases like gonorrhoea, syphilis, and trachomonas infections.

In Zimbabwe, maternal girl orphans were more likely to be infected with HIV than non-orphans girls (Kang et al 2008).

Again mother's affection, care, vigilance and advice seem to favour protection against sexuality.

5.3 CONCLUSION ABOUT THE RESEARCH PROBLEM

There were no differences in the sex distributions of orphans and non-orphans in the 15-18 year group (the pattern seen in all children 0-18 years). However, orphanhood increased with age and peaked around 16 years (within the adolescent group of study).

There was no difference in the education levels achieved and most orphans and non-orphans reached Grade 9. However, the percentage of orphans was less than non-orphans from grade 9 to 12. Orphans are at increased risk to drop out of school.

The demise of parent(s) leads to loss of mentoring at home, poor nutrition due to constraints of income, difficulty in paying school fees, acquiring uniform and stationary. All these lead to drop out in school or poor academic performance. Orphans had a poorer socio-economic status. They lived in poorer household; more unemployed and more out-migrated than non-orphans.

A higher percentage of orphans were accessing government grants than non-orphans.

More orphans had ever had sex, more with a regular partner, but no statistical difference to be pregnant than non-orphans.

More orphans than non-orphans were infected with the HIV virus.

5.4 RECOMMENDATIONS

There is need for intervention programmes to be devised. The interventions will mitigate the adverse conditions that adolescents orphans find themselves in. This adolescent age group is a very critical stage of life as there may be change in living arrangement. Living arrangement in a different neighbourhood may follow with care being taken over by a relative or by a grandparent (usually grandmother). Added to the grief after the loss of a parent is the emotional dysfunction resulting from poor mentoring, lack of parental care and love lack of emotional support, limited or no access to school as a result of lack of income. We should take cognizance of how Uganda addresses the care of Orphans. Their selected programmes and policy recommendations are worthy of note. The programmes reached children before they became orphans. Psychological stress among both HIV infected parents and children were reduced by making provision and plans beforehand. Extended family support, awareness of property rights, respect for religious inheritance laws and community awareness reduced stigma and discrimination. Relaxing requirements of school uniforms, fees, and

support to income generating projects led to children attending school. All sporting and recreation facilities were open to OVC.

5.4.1 PSYCHOLOGICAL EFFECT OF ORPHANHOOD

The psychological trauma suffered by the orphans, due to critically ill patients and their ultimate demise, leads to difficult up-bringing. Without counseling these orphans look for support elsewhere or not at all. An ageing grandparent may not be able to give support as they themselves may have chronic illnesses or be incapacitated .

OVC often display frustration, depression, fear, lack of concentration, and adaption to social change which is compounded by stigma and discrimination. Children are also adversely affected by bereavement but they do not fully understand the finality of death. These unresolved negative emotions are often expressed as anger and depression. Children are often punished for negative behaviour.

Sadness and helplessness are felt during parent's illness which is also prolonged over years especially in HIV/AIDS sufferers. The guide of a clinical child psychologist (not always assessable in poor communities) is required to understand their emotions, respond by listening, talking to and encouragement to express themselves.

There is need for orphan studies to include the psychological aspect of growing up with sick or no parents. Study done by King, De Silvia, Stein &Patel (2009) show that there are no interventions to improve the psychosocial wellbeing of orphans and vulnerable children. The authors conclude that there is need for greater partnerships between programme implementers and researches. Adoptive families have problems of their own and adoptive or fostered children often receive worse treatment than the biological children in the same family.

Grandparents who are expecting to be cared for by their children suddenly now have to care for their grandparents. These grandparents are less able to provide discipline, and even provide basic needs of food, clothing, shelter and health care. To deal with adolescents is more demanding for grandparents. They themselves are in need, especially the elderly who are prone to chronic diseases as well. Hence OVC and their caregivers need to be well cared for.

School teachers need to be trained in identifying socio-psychological problems of OVC and can refer affected children to the visiting school nurse. A concerted effort to discuss stigma and discrimination should be made in life orientation lessons of schools.

5.4.2 SCHOOLING

Loss of a parent(s), especially a mother after a debilitating and distressing illness impacts on a child's ability to learn and concentrate. Rate of absenteeism, repetition of grades, supervision of homework, and type of food consumed and supplementary feeding schemes are a basis for future research.

Furthermore, teenagers need to be equipped with skills should future schooling or acquiring tertiary academic or technical education not be possible. Here is an opportunity for corporate business in the private sector to get involved. Interventions are needed now if the Millennium Development Goal on Education is to be achieved in light of ever increasing orphan and vulnerable children.

Teenagers in poor households, especially females, have reduced educational advancement and achievement. Pregnancy is another major factor inhibiting schooling. Policy makers should consider waiver of school fees, a uniform and stationery allowance, enhanced feeding schemes and shelter if we are to give orphans and disadvantaged children a chance in life. Such an investment will benefit teenagers in attaining skills that are so desperately needed in our country.

In the Central African Republic OVC generally have reading and writing problems and need a lot of attention. SOS Children's Village International (2006) launched special afternoon classes which are conducted by trained teachers who are fully aware of their responsibilities. Children are given uniforms, stationary and all teaching materials. In addition, with family strengthening programmes, these children receive multidisciplinary support which meets their medical, nutritional, psychosocial and educational needs.

5.4.3 COMMUNITY BASED INTERVENTIONS

A registry of OVC should be compiled and made available to leaders and community based organizations. An analysis of the plight of these children should be routine in discussions in peoples meetings. This will encourage local innovative interventions. A public health information and education intervention programme was introduced to the population of South Carolina to reduce the teenage pregnancy rate. Parents, teachers, ministers, church representatives, community leaders, and adolescents at public schools were targeted. Rates of pregnancy was significantly reduced through messages emphasizing decision making and communication, self-esteem enhancement ,and understanding human reproductive anatomy, physiology and contraception (Murray, Andrew, & Schluchter ,1982).

Communities can enlist the support of various NGO's who feed and clothe the underprivileged. Local print and electronic media could play a pivotal role in highlighting the plight of OVC and requesting help of philanthropic individuals and organizations.

Community gardens will provide food for orphans and vulnerable children. If this is not possible in homes, then public institutions like schools, health facilities and municipality should make land and water available for such gardens. Concerned households in an area where OVC live can be allocated garden plots to grow

vegetables. Larger gardens could also be a source of income for their sustainability and income generation as well.

Home Based Carers (HBC) usually do home visits of the sick who have been entrusted to their care from hospitals. HBC could be trained to identify OVC in their catchment area of care. Monitoring their wellbeing by HBC and a reporting mechanism to Social Services will enhance vigilance of OVC in the community.

5.4.4 REVIEW OF SOCIAL GRANT BENEFICIARIES

Most orphans live in extended families that need financial help especially in rural areas when unemployment rate is high. Old age pensioners barely have enough for them and are further burdened in catering for teenage orphans who live with them. The child support grant is only available to primary caregivers of children under nine years old. The adolescent orphan in our age group of study can be further disadvantaged if they do not live with a pensioner.

A more general form of social assistance, not tied to age, needs to be considered by policy makers. Young people, living in rural under-privileged areas, should be assisted.

5.4.5 YOUTH INVOLVEMENT

Youth should also be involved in the care and support of people affected by HIV and AIDS. Youth could come from homes in which a family member is affected and/or living with orphans and vulnerable children. Youth from the immediate neighbourhood could also be recruited, especially in rural areas where there is closeness in a village.

Youth could provide help in cleaning, nursing care, counseling and clinic referrals for affected persons. The youth caregiver may involve OVC in recreation

activities in an attempt to reduce the sense of isolation, help with homework, and engage school colleagues to reduce stigma and discrimination through education.

Youth caregivers will also develop a sense of community involvement and responsibility.

Their involvement with NGO's and CBO's who are involved with PLWHA and OVC may influence their own behaviour in being aware of the difficulties that OVC and affected people go through. They should be guided on reducing their own risk behaviour, abstinence from sex, drugs and alcohol, dealing with peer pressure, reducing their negative perception about stigma and discrimination. Furthermore, trained youth caregivers could train and enroll other youth. Youth may develop life skills, encourage vegetable gardens, learn and teach how to stay healthy, know about reproductive health.

5.4.6 HEALTH EDUCATION

Health education by health professional in a health facility over weekends can target the local population and OVC in particular. This will help scholars and working parents to access health services more easily.

Reproductive health programmes especially for teenage females should be offered.

HIV Counseling and Treatment (HCT) initiative of our National Minister of Health needs to target teenagers vigorously as they are a vulnerable group of our nation. Preventative interventions like circumcision for males ,correct and consistent use of condoms, and the use of microbicides by females once third phase trials are successful, will help fight against the spread of the HIV virus. The various -health initiatives and programmes listed above, together with the

use of antiretroviral drugs for affected persons and behaviour change of individuals will stem the tide of the HIV epidemic in our country.

Partnership with Traditional leaders and healers, especially in rural communities, can further enhance the reduction in the incidence of HIV/AIDS. With time there should be a decrease in prevalence of the disease with an equivalent reduction in the number of orphans.

CONCLUSION

Adolescents in a rural area go through many challenges due to high unemployment, inadequate homes which are usually clustered and mud-built, poor sanitation, not much piped water and limited - resourced schools.

Orphan hood in a high prevalence area of HIV/AIDS, is further compromised as loss of parent(s) makes them rely on extended family support, pensioned grandparents, and government grants.

Additionally, more and more people will become orphans at this critical stage. It has been shown that orphan hood increases with age and with a larger number of adolescent orphans the public health problem will escalate. Besides an education which will be compromised, basic skills learning and poverty will be exacerbated further.

The comparison between the plight of orphaned adolescents and non-orphaned adolescents in a rural setting needs different government policies, extended government grant up to age 18 years, enhanced community awareness and participation, tolerance without stigma and discrimination, interventions in support of wellness and skills development.

Motivation of adolescents to care for orphans in their community needs commitment and sustainability. The spirit of “UBUNTU” needs to be re-vitalized.

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ANNEXURE 1

Permission letter



10 April 2008

The Ethics Committee
National School of Public Health
MEDUNSA Campus
University of Limpopo

Dear Sir or Madam

Student number: 2005 87749
Approval for use of Africa Centre data

Dr Ahmed Adam is the medical manager of the Department of Health's Hlabisa Hospital in rural KwaZulu-Natal. There exists close corporation between Africa Centre and the Hlabisa Hospital.

I am aware that Dr Adam is busy with a research project, entitled: "**Growing up without parents: The vulnerability of adolescents in rural South Africa**", as part of his studies towards an MSc in Public Health and I fully support him in this.

I hereby grant Dr Adam permission to use the analysis of the Africa Centre Demographic Surveillance System Core data for his research project.

Yours sincerely

Marie-Louise Newell MB MSc PhD
Professor of Health and Population Studies, UKZN
Professor of Paediatric Epidemiology, ICH/UCL
Director, Africa Centre for Health and Population Studies

ANNEXURE 2

Medunsa Research & Ethics Committee Clearance Certificate

UNIVERSITY OF LIMPOPO
Medunsa Campus

MEDUNSA RESEARCH & ETHICS COMMITTEE
CLEARANCE CERTIFICATE


P.O. Medunsa
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MEETINGS: 08/2010
PROJECT NUMBER: MREC0207/2010; PG

PROJECT :
TITLE: A comparison of vulnerability of orphaned adolescents to non-orphaned adolescents in rural Hlabisa District of South Africa

Researcher: Dr. S. Adom
Supervisor: M. Molegetse-Ntshabu
Department: Public Health
School: Health Care Sciences
Degree: MPH

DECISION OF THE COMMITTEE:
MREC approved the project.
DATE: 04 November 2010




PROF. G. G. SISON
CHAIRPERSON-MREC

Notes:

i) Should any departure be contemplated from the research procedure as approved, the researcher(s) must re-submit the protocol to the committee.

ii) The budget for the research will be considered separately from the protocol. PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES.

ANNEXURE 3

| | DATASET | CHARACTERISTICS |
|----|-------------------------|---|
| 1. | Orphan status | Male – female distribution by orphan status in age subsets. |
| 2. | Adolescents 15-18 years | Age – sex distribution of orphans versus non-orphans. |
| 3. | Missing orphan status | Reasons for exclusion criteria. |
| 4. | Orphanhood adolescents | Maternal, paternal or dual status in gender groups. |
| 5. | Education | Education level of schooling. Reasons for not being at school. |
| 6. | Economic activity | Whether employed or not when not in school according to orphan status ,social economic status, including migrancy trends. |
| 7. | Sexuality | Ever had sex, partnership patterns, marital status, pregnancy , health status. |
| 8. | Grants | Number of children access child support government grants according to orphan status. |

ANNEXURE 4

Africa Centre Data Sets

Datasets
Page 1 of 3



A Research Centre, University of KwaZulu-Natal,
In Collaboration with the Medical Research Council of South Africa



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About Us

Datasets

The Africa Centre has built up, since January 2000, an extensive longitudinal Database of demographic, social, medical and economic information about the members of its Demographic Surveillance Area, which is situated in a rural area of northern KwaZulu Natal where HIV prevalence is extremely high. It has developed from this database the following suite of datasets which can be used both internally within the organisation, and by other researchers.

A good Introduction to the data, plus references to numerous publications using the data, is available here. An excellent non-technical introduction is also provided by the ACDIS fieldwork manual, available [here](#) (9MB pdf).

To obtain the actual data a Data Use Agreement form ([available here](#)), plus accompanying motivation, and an Analysis Plan etc, must have been received and approved/authorised by senior Africa Centre staff.

If you might need *ad hoc* Datasets, beyond those listed below, please discuss your requirements with Africa Centre.

Core Datasets

1. Individuals
2. Households
3. Bounded Structures
4. Pregnancies
5. Deaths
6. Household Memberships (who belongs to which household(s))
7. Individual Residences (who resides where)
8. Household Memberships (which households reside where)
9. Conjugal Relationships
10. Household Head Relationships
11. Member Status Observations (one per individual per household)
12. Bounded Structure States (Under construction/Used/No longer used)
13. Bounded Structure Type (frontsteads, School, Clinic etc)
14. Migrations
15. Vaccinations

Demography Dataset

1. Demography

Module Datasets

General Health

A. Women 15-49 years

1. 2000-2002 (Wave 1)
2. 2003-2004
3. 2005
4. 2006
5. 2007
6. 2008
7. 2009 (ages 15 and over)
8. 2010 (ages 15 and over)

B. Men 15-49 years

<http://www.africacentre.ac.za/default.aspx?ubid=69>
2010/08/03

- 1. 2002-4
- 2. 2005
- 3. 2006
- 4. 2007
- 5. 2008
- 6. 2009 (ages 15 and over)
- 7. 2010 (ages 15 and over)

C. Women 50 years and over

- 1. 2007
- 2. 2008

D. Men 55 years and over

- 1. 2007
- 2. 2008

HIV Surveillance

- 1. 2002-2004
- 2. 2005
- 3. 2006
- 4. 2007
- 5. 2008
- 6. 2009
- 7. 2010

HSE (Household Socio-Economic Status)

A. Household-level data (Assets, Facilities, Economic shocks, Grants, Climate, etc.)

- 1. 2001
- 2. 2003
- 3. 2005
- 4. 2006
- 5. 2007
- 6. 2008
- 7. 2010

B. Individual-level data (Education, Employment, Income, Religion, etc.)

- 1. 2001
- 2. 2003
- 3. 2005
- 4. 2006
- 5. 2007
- 6. 2009
- 7. 2010

Sickness and Death

Sickness and Death

Verbal Autopsies

- 1. Questionnaire Chapter 1 Identification & Disease History
- 2. Questionnaire Chapter 2 Injuries, Tetanus & Rabies
- 3. Questionnaire Chapter 3 Adults and children of 5 years & more
- 4. Questionnaire Chapter 4 Maternal Deaths
- 5. Questionnaire Chapter 5 Neonates (<28 days)
- 6. Questionnaire Chapter 6 Children >28 days & less than 5 years
- 7. Narrative
- 8. Checklist

ANNEXURE 5

Summary of the type of forms used in the ACDIS data collection

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Appendix A

Summary of type of forms used in the ACDIS data collection for the core dataset and their main purposes

| Form Type | Main Subject | Purpose |
|---|--|---|
| Bounded Structure Registration Form (BSR) | Bounded Structure | -Registers and collects information on single bounded structures, including location, type, state and functionality. -Identify all resident households (0, 1 or more) in the homestead. |
| Household Registration Form (HR) | Household | -Registers and collects information on one household. -Identifies and lists all household members and records their residential and membership status |
| Individuals Registration Form (IDR) | Individual | -Registers and collects information on one individual in a household, including name, age (in years, date of birth), civilian ID number, road to health card (birth weight, Apgar scores), mother's and father's details and household membership elsewhere in the DSA. |
| Conjugal Relationship Form (CCR) | Women in a conjugal relationship with a man in the same household | -Records information about a marital and permanent or long-term partnership. -Includes partners ID, relationship start date and/or date of marriage. |
| Antenatal Care Visit (AVN) | Pregnant women who have recently attended antenatal care | -Records information about antenatal care and clinic attendance during pregnancy -Includes presence of antenatal card, last menstrual period, expected date of delivery, date and place of first antenatal visit, gestation at 1st visit |
| Pregnancy Outcome Notification (PON) | Women who have recently given birth or ended a pregnancy | -Records information on outcome of one pregnancy. |
| Migration Notification Form (MGR) | Individuals, groups of individuals or households that recently in- or out-migrated | Records information about previous and new residence and its location within or outside the surveillance area. |
| Death Notification Form (DTN) | Individuals who have recently died | Records information from a caregiver or close member of household about time, place, circumstances and possible cause of death. |
| Verbal Autopsy (VA) | Individuals who have recently died | Records more detailed information than in DTN from a caregiver or close member of household information about time, place, circumstances and possible cause of death. Interviews are conducted by verbal autopsy (VA) nurses |
| Bounded Structure Update Form (BSU) | Bounded Structure | -Used to update information about the characteristics of the homestead that may have changed since the last visit using pre-printed |

| Form Type | Main Subject | Purpose |
|-----------------------------|--------------|---|
| | | information valid for the household at the time of the previous visit. |
| Household Update Form (HHU) | Household | Used to update information about the composition of the household that may have changed since the last visit using pre-printed information about the composition of the household and a matrix of all registered household members. |

| Form Type | Main Subject | DSS round | Purpose |
|--|---|---|---|
| Women's Health Form (WHL) (Changed to Women's General Health Form from Round 8, January 2003) | Women aged 15-49 years | Registration and updates | Records individual information on one any women of reproductive age about: -all previous pregnancies and outcome, -antenatal care, delivery and immunisation on children born in the last 5 years; and reproductive health and contraceptive use |
| Child Health Form (CHE) | Children under 5 years whose mothers are not resident in the same household or are dead | Registration | Records information from a best informant about immunization history and type of facility had that performed vaccinations |
| Household Socioeconomic Form (HSE) | Household | Round 4- Sept to Dec 2001 to be repeated annually | Collects information on housing structure, sources of energy, and amenities; government grants for household members; financial assets; livestock and land ownership; and education and employment of household members |
| Child Grant Form (CGR) | Individual adults caring for children (<18 yrs) | Round 5- Jan to May 2002 | Collect information about grants for a child that members of a household receive, are in the process of applying for, or have been refused. |

ANNEXURE 6

Section 1. Questions for all Members

| | |
|--|--|
| <p>1. (NAME) Name _____ Last full DOB _____</p> <p>2. When did (NAME) become a household member? _____</p> <p>3. DID YOU SEE (NAME) DURING THE VISIT? IF YES: WAS (NAME) TIRED/LOOKING FOR HIS/HER OWN BED? YES: <input type="checkbox"/> No, not tired <input type="checkbox"/> Tired (Specify) _____ NO: <input type="checkbox"/> No, not tired (member died) <input type="checkbox"/> Tired (Specify) _____</p> <p>4. Is (NAME) now a member? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> MEMBERSHIP ENDED If membership ended: _____ Member's DOB: _____ Yes: (Date of DED) = _____ No: (Date of death) = _____ No: (Date of death) = _____ (DATE) _____</p> <p>5. What type of member status (NAME) on (DATE)? Full Member <input type="checkbox"/> At Risk Member <input type="checkbox"/></p> <p>6. What is the relationship of (NAME) to the head of the household on (DATE)? -RELATIONSHIP TYPE _____ IF CHANGED SINCE, LAST VISIT: _____</p> <p>7. Describe (NAME)'s presence pattern with the household between the visit and (DATE)? PRESENCE PATTERNS: _____</p> <p>8. What was the weight (NAME) spent with the household? Last night: <input type="checkbox"/> _____ Other night: <input type="checkbox"/> _____ (Date of occurrence and day) _____</p> <p>9. How many nights did (NAME) spend at the household between the visit and (DATE)? No nights: <input type="checkbox"/> More than half: <input type="checkbox"/> Few nights: <input type="checkbox"/> Most nights: <input type="checkbox"/> Regularly: <input type="checkbox"/> Fully night: <input type="checkbox"/></p> <p>10. Was (NAME) visited on (DATE)? No, not needed <input type="checkbox"/> Yes, yes visit <input type="checkbox"/> _____</p> <p>11. THERE IS A (NAME) ON (DATE) AS A FULL-TIME MEMBER AND IS/AS NON-RESIDENT? Yes <input type="checkbox"/> Member (Specify) _____ No <input type="checkbox"/></p> <p>12. IF NON-RESIDENT: Where is (NAME) currently resident? (Location) _____ Describe the home: _____</p> | <p>13. IF (NAME) NOT IN USA, how is (NAME) currently living? Travel Travel _____ Travel Commercial Flight _____ Travel Travel _____ Other: _____ Other: _____ (Specify any type)</p> <p>14. (NAME) NOT IN USA: Was (NAME) in the military, navy, coast guard, hospital, prison or in a home? Yes <input type="checkbox"/> No <input type="checkbox"/> (Specify) _____</p> <p>15. Is (NAME) child of (NAME) resident or status of (NAME) different between (DATE) and (DATE)? Yes, migrated <input type="checkbox"/> _____ Yes, not migration <input type="checkbox"/> _____ No, under 18 <input type="checkbox"/> _____ No, over 18 <input type="checkbox"/> _____</p> <p>16. National Status a. Mother's Surname, First Name(s) _____ b. Mother's birth (DOB) _____ c. Previous status: _____ d. Current status: <input type="checkbox"/> Alive <input type="checkbox"/> Dead <input type="checkbox"/> Don't know <input type="checkbox"/> IF (NAME) IS ALIVE AND TEMPORARILY NOT IN USA: How is (NAME) currently living? _____ Mother's Age: _____ Date of Death: _____ Age of Death: _____ (Y) (Y) (Y) (Y) (M) (M) (D) (D)</p> <p>17. National Status a. Father's Surname, First Name(s) _____ b. Father's birth (DOB) _____ c. Previous status: _____ d. Current status: <input type="checkbox"/> Alive <input type="checkbox"/> Dead <input type="checkbox"/> Don't know <input type="checkbox"/> IF (NAME) IS ALIVE AND TEMPORARILY NOT IN USA: How is (NAME) currently living? _____ Father's Age: _____ Date of Death: _____ Age of Death: _____ (Y) (Y) (Y) (Y) (M) (M) (D) (D)</p> <p>18. CHECK (NAME) IF LESS THAN 15 YRS OLD ON (DATE)? Yes, less than 15 <input type="checkbox"/> _____ No, 15 or more <input type="checkbox"/> _____</p> |
|--|--|

Section 2: Questions for all Members aged 16 years and over

| | |
|---|---|
| 19. Gender | a. Civil? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes but not born <input type="checkbox"/> No <input type="checkbox"/> |
| | b. Civil ID No: <input type="text"/> |
| | c. Civil ID Date of Birth: <input type="text"/> |
| 20. What Member's rights status (NAME on DATE)? | Marital Status: <input type="text"/> |
| 21. Check all boxes that apply (NAME, PUS, PVA, PTM, NTR, NTR or NTR) | Yes <input type="checkbox"/> No <input type="checkbox"/> |
| 22. Check if (NAME) lives regularly with partner (DATE)? | Partnership status: <input type="text"/> |
| 23. Check how (NAME) is employed? | Work <input type="checkbox"/> Unemployed <input type="checkbox"/> Retired <input type="checkbox"/> Under 10 years? Yes <input type="checkbox"/> No <input type="checkbox"/> Yes but not born <input type="checkbox"/> |

Section 3: Questions only for female Members aged 16 years and over

| | |
|--|---|
| 24. Is (NAME) a registered voter with a full postal address of this house (on DATE)? | Yes <input type="checkbox"/> No <input type="checkbox"/> No, moved <input type="checkbox"/> |
| Does (NAME) have a partner (regular or not regular partner)? | |
| 25. Has there a regular relationship over the last 6 months? | Yes <input type="checkbox"/> No <input type="checkbox"/> |
| 26. Check if (NAME) has been sexually abused in the last 6 months? | Yes <input type="checkbox"/> No <input type="checkbox"/> |
| 27. Do (NAME) have a regular partner in the last 6 months? | Yes <input type="checkbox"/> No <input type="checkbox"/> Not recent <input type="checkbox"/> |
| Does (NAME) have a partner who is not a regular partner? | |
| 28. Is (NAME) pregnant on (DATE)? | Yes, pregnant <input type="checkbox"/> Don't know <input type="checkbox"/> |
| Does (NAME) have a partner who is not a regular partner? | |
| 29. Has (NAME) had a pregnancy that has ended between (on) (DATE) and (DATE)? | Yes <input type="checkbox"/> Delivery <input type="checkbox"/> Miscarriage <input type="checkbox"/> Abortion <input type="checkbox"/> |
| Last pregnancy ended (on) (DATE) | |
| 30. Check if (NAME) aged under 16 years? | Yes <input type="checkbox"/> No <input type="checkbox"/> |

Section 4: Questions only for Members under age 16

| | | |
|--|--|---|
| 31. What is responsible for caring for (NAME) on a day-to-day basis? | DAD <input type="text"/> or Not a Registered Member <input type="checkbox"/> | MOTHER <input type="text"/> or Other <input type="text"/> |
| 32. What is responsible for paying for the school fees and uniform? | DAD <input type="text"/> or Not a Registered Member <input type="checkbox"/> | MOTHER <input type="text"/> or Other <input type="text"/> |

Section 5: Information for Fieldworkers

Responsible for the household structure

Section 3: Multiple membership of households within the DSA

It is very important that we do not count any person twice.
 Please think carefully about any other households in the DSA where [NAME] stays or visits.

Would [NAME] be considered to be a member of any other household within the DSA? Yes → Record details below
 No → Full contact

Household 1

BSID: Head of Household: Street: Nearest School BSID: Local Area:

Any other details:

 Matched? Yes No

Household 2

BSID: Head of Household: Street: Nearest School BSID: Local Area:

Any other details:

 Matched? Yes No

Household 3

BSID: Head of Household: Street: Nearest School BSID: Local Area:

Any other details:

 Matched? Yes No