# Contrasting Primary School Outcomes of Paternal and Maternal Orphans in Manicaland, Zimbabwe: HIV/AIDS and Weaknesses in the Extended Family System

Constance Nyamukapa, Simon Gregson

October 2003



Carolina Population Center University of North Carolina at Chapel Hill 123 W. Franklin Street Chapel Hill, NC 27516 Phone: 919-966-7482 Fax: 919-966-2391 measure@unc.edu www.cpc.unc.edu/measure

#### **Collaborating Partners:**

Macro International Inc. 11785 Beltsville Drive Suite 300 Calverton, MD 20705-3119 Phone: 301-572-0200 Fax: 301-572-0999 measure@macroint.com

John Snow Research and Training
Institute
1616 N. Ft. Myer Drive
11<sup>th</sup> Floor
Arlington, VA 22209
Phone: 703-528-7474
Fax: 703-528-7480
measure project@jsi.com

Tulane University 1440 Canal Street Suite 2200 New Orleans, LA 70112 Phone: 504-584-3655 Fax: 504-584-3653 measure2@tulane.edu

## **Funding Agency:**

Center for Population, Health and Nutrition U.S. Agency for International Development Washington, DC 20523-3600 Phone: 202-712-4959

WP-03-71

The research upon which this paper is based was sponsored by the MEASURE *Evaluation* Project with support from the United States Agency for International Development (USAID) under Contract No. HRN-A-00-97-00018-00.

•|•|•|•|•|•|•

The working paper series is made possible by support from USAID under the terms of Cooperative Agreement HRN-A-00-97-00018-00. The opinions expressed are those of the authors, and do not necessarily reflect the views of USAID.

The working papers in this series are produced by the MEASURE *Evaluation* Project in order to speed the dissemination of information from research studies. Most working papers currently are under review or are awaiting journal publication at a later date. Reprints of published papers are substituted for preliminary versions as they become available. The working papers are distributed as received from the authors. Adjustments are made to a standard format with no further editing.

A listing and copies of working papers published to date may be obtained from the MEASURE *Evaluation* Project at the address listed on the back cover.

# Other MEASURE Evaluation Working Papers

WP-03-70 The Impacts of Decentralization on Health Behaviors in Uganda (Paul Hutchinson, John Akin, Freddie Ssengooba) WP-03-69 How and When Should One Control for Endogenity Biases? Part I: The Impact of a Possibly Endogenous Explanatory Variable on a Continuous Outcome (Gustavo Angeles, David K. Guilkey, Thomas A. Mroz) WP-03-68 The role of user charges and structural attributes of quality on the use of maternal health services in Morocco (David R. Hotchkiss, Katherine Krasovec, M. Driss Zine-Eddine El-Idrissi, Erin Eckert, Ali Mehryar Karim) WP-03-67 Association of mass media exposure on family planning attitudes and practices in Uganda (N. Gupta, C. Katende, R. Bessinger) Multi-media campaign exposure effects on knowledge and use of condoms for STI and WP-03-66 HIV/AIDS prevention in Uganda (R. Bessinger, C. Katende, and N. Gupta) WP-03-65 The Social Side of Service Accessibility (B. Entwisle, A. Weinberg, R.R. Rindfuss, and K. Faust) WP-03-64 Comparative Analysis of Program Effort for Family Planning, Maternal Health, and HIV/AIDS, 30 Developing Countries (J.A. Ross) WP-03-63 Assessment of a Capture-Recapture Method for Estimating the Size of the Female Sex Worker Population in Bulawayo, Zimbabwe (S.S. Weir, D. Wilson, P.J. Smith, V.J. Schoenbach, J.C. Thomas, P.R. Lamptey, and J.T Boerma) Socioeconomic Status, Permanent Income, and Fertility: A Latent Variable Approach WP-02-62 (K.A. Bollen, J.L. Glanville, and G. Stecklov) The Effect of Facility Characteristics on Choice of Family Planning Facility in Rural WP-02-61 Tanzania (S. Chen, D. K. Guilkey) Health Program Effects on Individual Use of Services (Amy O. Tsui, Festus Ukwuani, WP-02-60 David Guilkey, and Gustavo Angeles) WP-02-59 Health Facility Characteristics and the Decision to Seek Care (E. Jensen, J. Stewart) WP-02-58 HIV impact on mother and child mortality in rural Tanzania (Japheth Ng'weshemi, Mark Urassa, Raphael Isingo, Gabriel Mwaluko, Ngalula J, J Ties Boerma, Marston M, Basia Zaba) Secretive females or swaggering males? An assessment of the quality of sexual WP-02-57 partnership reporting in rural Tanzania (Soori Nnko, J Ties Boerma, Mark Urassa, Gabriel Mwaluko, Basia Zaba) Understanding the Uneven Spread of HIV within Africa: Comparative Study of WP-02-56

	Zimbabwe (J Ties Boerma, Constance Nyamukapa, Mark Urassa, Simon Gregson)
WP-02-55	Assessment of the Roll Back Malaria Monitoring and Evaluation System (Kate Macintyre, Erin Eckert, Amara Robinson)
WP-02-54	Measuring Family Planning Sustainability at the Outcome and Program Levels (Rob Stephenson, Amy Ong Tsui, Rodney Knight)
WP-02-53	An Assessment of the Quality of National Child Immunization Coverage Estimates in Population-based Surveys (Jennifer Brown, Roeland Monasch, George Bicego, Anthony Burton, and J. Ties Boerma)
WP-02-52	Determinants of Contraceptive Method Choice in Rural Tanzania between 1991 and 1999 (Susan Chen and David K. Guilkey)
WP-02-51	Estimation of levels and trends in age at first sex from surveys using survival analysis (Basia Zaba, Ties Boerma, Elizabeth Pisani, Nahum Baptiste)
WP-02-50	The Impact of Community Level Variables on Individual Level Outcomes: Theoretical Results and Demographic Applications (Gustavo Angeles, David K. Guilkey and Thomas A. Mroz)
WP-02-49	The Impact of a Reproductive Health Project Interventions on Contraceptive Use in Uganda (Katende C, Gupta N, Bessinger )
WP-02-48	Decentralization in Tanzania: the View of District Health Management Teams (Paul Hutchinson)
WP-02-47	Community effects on the risk of HIV infection in rural Tanzania (Shelah S. Bloom, Mark Urassa, Raphael Isingo, Japheth Ng'weshemi, J. Ties Boerma)
WP-02-46	The Determinants of Fertility in Rural Peru: Program Effects in the Early Years of the National Family Planning Program (Gustavo Angeles, David K. Guilkey and Thomas A. Mroz)
WP-02-45	Cost and Efficiency of Reproductive Health Service Provision at the Facility Level in Paraguay (Gustavo Angeles, Ruben Gaete and John F. Stewart)
WP-02-44	Decentralization, Allocative Efficiency and Health Service Outcomes in the Philippines (J. Brad Schwartz , David K. Guilkey and Rachel Racelis)
WP-01-43	Changes in Use of Health Services During Indonesia's Economic Crisis (Elizabeth Frankenberg, Bondan Sikoki, Wayan Suriastini, Duncan Thomas)
WP-01-42	Contraceptive Use in a Changing Service Environment: Evidence from the First Year of Indonesia's Economic Crisis (Elizabeth Frankenberg, Bondan Sikoki, Wayan Suriastini, DuncanThomas)

Biological, Behavioral and Contextual Factors in Rural Populations in Tanzania and

WP-01-41	Access as a Factor in Differential Contraceptive Use between Mayans and Ladinos in Guatemala (Eric Seiber and Jane T. Bertrand)
WP-01-40	Dimensions of Ratings of Maternal and Neonatal Health Services: A Factor Analysis (Rodolfo A. Bulatao and John A. Ross)
WP-01-39	Do Health Services Reduce Maternal Mortality? Evidence from Ratings of Maternal Health Programs (Rudolfo A. Bulatao and John A. Ross)
WP-01-38	Economic Status Proxies in Studies of Fertility in Developing Countries: Does the Measure Matter? (Kenneth A. Bollen, Jennifer L. Glanville, and Guy Stecklov)
WP-01-37	A Pilot Study of a Rapid Assessment Method to Identify Areas for AIDS Prevention in Cape Town, South Africa (Sharon S. Weir, Chelsea Morroni, Nicol Coetzee, John Spencer, and J. Ties Boerma)
WP-01-36	Decentralization and Local Government Health Expenditures in the Phillippines (J. Brad Schwartz, Rachel Racelis, and David K. Guilkey)
WP-01-35	Decentralization and Government Provision of Public Goods: The Public Health Sector in Uganda (John Akin, Paul Hutchinson and Koleman Strumpf)
WP-01-34	Appropriate Methods for Analyzing the Effect of Method Choice on Contraceptive Discontinuation (Fiona Steele and Siân L. Curtis)
WP-01-33	A Simple Guide to Using Multilevel Models for the Evaluation of Program Impacts (Gustavo Angeles and Thomas A.Mroz)
WP-01-32	The Effect of Structural Characteristics on Family Planning Program Performance in Côte d'Ivoire and Nigeria (Dominic Mancini, Guy Stecklov and John F. Stewart)
WP-01-31	Socio-Demographic Context of the AIDS Epidemic in a Rural Area in Tanzania with a Focus on People's Mobility and Marriage (J. Ties Boerma, Mark Urassa, Soori Nnko, Japheth Ng'weshemi, Raphael Isingo, Basia Zaba, and Gabriel Mwaluko)
WP-01-30	A Meta-Analysis of the Impact of Family Planning Programs on Fertility Preferences, Contraceptive Method Choice and Fertility (Gustavo Angeles, Jason Dietrich, David Guilkey, Dominic Mancini, Thomas Mroz, Amy Tsui and Feng Yu Zhang)
WP-01-29	Evaluation of Midwifery Care: A Case Study of Rural Guatemala (Noreen Goldman and Dana A. Glei)
WP-01-28	Effort Scores for Family Planning Programs: An Alternative Approach (John A. Ross and Katharine Cooper-Arnold)
WP-00-27	Monitoring Quality of Care in Family Planning Programs: A Comparison of Observation and Client Exit Interviews (Ruth E. Bessinger and Jane T. Bertrand)

WP-00-26	Rating Maternal and Neonatal Health Programs in Developing Countries (Rodolfo A. Bulatao and John A. Ross)
WP-00-25	Abortion and Contraceptive Use in Turkey (Pinar Senlet, Jill Mathis, Siân L. Curtis, and Han Raggers)
WP-00-24	Contraceptive Dynamics among the Mayan Population of Guatemala: 1978-1998 (Jane T. Bertrand, Eric Seiber and Gabriela Escudero)
WP-00-23	Skewed Method Mix: a Measure of Quality in Family Planning Programs (Jane T. Bertrand, Janet Rice, Tara M. Sullivan & James Shelton)
WP-00-21	The Impact of Health Facilities on Child Health (Eric R. Jensen and John F. Stewart)
WP-00-20	Effort Indices for National Family Planning Programs, 1999 Cycle (John Ross and John Stover)
WP-00-19	Evaluating Malaria Interventions in Africa: A Review and Assessment of Recent Research (Thom Eisele, Kate Macintyre, Erin Eckert, John Beier, and Gerard Killeen)
WP-00-18	Monitoring the AIDS epidemic using HIV prevalence data among young women attending antenatal clinics: prospects and problems (Basia Zaba, Ties Boerma and Richard White)
WP-99-17	Framework for the Evaluation of National AIDS Programmes (Ties Boerma, Elizabeth Pisani, Bernhard Schwartländer, Thierry Mertens)
WP-99-16	National trends in AIDS knowledge and sexual behaviour in Zambia 1996-98 (Charles Banda, Shelah S. Bloom, Gloria Songolo, Samantha Mulendema, Amy E. Cunningham, J. Ties Boerma)
WP-99-15	The Determinants of Contraceptive Discontinuation in Northern India: A Multilevel Analysis of Calendar Data (Fengyu Zhang, Amy O. Tsui, C. M. Suchindran)
WP-99-14	Does Contraceptive Discontinuation Matter?: Quality of Care and Fertility Consequences (Ann Blanc, Siân Curtis, Trevor Croft)
WP-99-13	Socioeconomic Status and Class in Studies of Fertility and Health in Developing Countries (Kenneth A. Bollen, Jennifer L. Glanville, Guy Stecklov)
WP-99-12	Monitoring and Evaluation Indicators Reported by Cooperating Agencies in the Family Planning Services and Communication, Management and Training Divisions of the USAID Office of Population (Catherine Elkins)
WP-98-11	Household Health Expenditures in Morocco: Implications for Health Care Reform (David R. Hotchkiss, Zine Eddine el Idriss, Jilali Hazim, and Amparo Gordillo)
WP-98-10	Report of a Technical Meeting on the Use of Lot Quality Assurance Sampling (LQAS) in Polio Eradication Programs

WP-98-09	How Well Do Perceptions of Family Planning Service Quality Correspond to Objective Measures? Evidence from Tanzania (Ilene S. Speizer)
WP-98-08	Family Planning Program Effects on Contraceptive Use in Morocco, 1992-1995 (David R. Hotchkiss)
WP-98-07	Do Family Planning Service Providers in Tanzania Unnecessarily Restrict Access to Contraceptive Methods? (Ilene S. Speizer)
WP-98-06	Contraceptive Intentions and Subsequent Use: Family Planning Program Effects in Morocco (Robert J. Magnani)
WP-98-05	Estimating the Health Impact of Industry Infant Food Marketing Practices in the Philippines (John F. Stewart)
WP-98-03	Testing Indicators for Use in Monitoring Interventions to Improve Women's Nutritional Status (Linda Adair)
WP-98-02	Obstacles to Quality of Care in Family Planning and Reproductive Health Services in Tanzania (Lisa Richey)
WP-98-01	Family Planning, Maternal/Child Health, and Sexually-Transmitted Diseases in Tanzania: Multivariate Results using Data from the 1996 Demographic and Health Survey and Service Availability Survey (Jason Dietrich)

Contrasting primary school outcomes of paternal and maternal orphans in Manicaland, Zimbabwe: HIV/AIDS and weaknesses in the extended family system

Constance Nyamukapa<sup>a</sup>, Simon Gregson<sup>a,b\*</sup>

<sup>a</sup>Biomedical Research and Training Institute, University of Zimbabwe Campus, P.O. Box CY1753, Harare, Zimbabwe <sup>b</sup>Department of Infectious Disease Epidemiology, Imperial College Faculty of Medicine, Norfolk Place, London W2 1PG, United Kingdom

\*Corresponding author. Tel. +44 207-594-3279; fax: +44 207-402-3927

E-mail address: Sajgregson@aol.com

The authors thank the Wellcome Trust, the World Bank and MEASURE Evaluation for financial support, Manford Wambe, Lucia Mupera, Gwinyai Mudewe, Elijah Dauka, Louis Chisvo, Memory Kakowa, Makalima Mlilo and Phillis Mushati for assistance with data collection, Catherine Campbell for advice on interpretation of the qualitative data, and the people of Manicaland for their support for and participation in the research.

### **Abstract**

Fewer orphans are enrolled in school than other children but the extent of disadvantage-after allowing for their older average age- is small in most countries. Crosscountry analyses show variation in the size and strength of associations between orphanhood and education according to the form of parental loss experienced. However, maternal death is usually more detrimental to children's education chances than paternal death and double orphans are typically the least likely to be in school. These differences are not fully accounted for by differences in household socio-economic circumstances. In a case study in Manicaland, Zimbabwe, we found that children who had lost their mothers at an early age were less likely to have completed primary school than other children but that the reverse was true for paternal orphans. These results remained valid even after controlling for other factors that influence primary school completion, including child's sex and age, economic status of household, and characteristics of household head. In an in-depth study of the extended family system in Manicaland, we identified factors that support the education of paternal orphans and reduce the school chances of maternal orphans. The former include the increased role and greater motivation of surviving mothers and more extensive involvement of relatives. The latter include low priority given by surviving fathers and step-mothers to the child's education and more frequent residence with more distant relatives. The extended family and Government and NGO programmes are less likely to provide support when the natural father is still alive. The extended family system provides the most conducive and sustainable context for orphans' upbringing but is becoming seriously fragmented. Care

is needed to ensure that initiatives intended to assist orphans support and build upon rather than undermine extended family arrangements.

#### Introduction

Universal primary school completion by the year 2015 is a key development goal (United Nations, 2000) but remains far from being realised in many countries in sub-Saharan Africa (UNDP, 2002). Enormous variation persists between and within countries. At the national population level, factors such as GNP *per capita*, debt, government expenditure on education, level of urbanisation, and region have been shown to be important (Mutangadura, 2003). At the household level, sex and education of the household head and standard of living are important (Lloyd & Blanc, 1996).

The spread of HIV/AIDS is currently posing major new obstacles to increasing access to education in Africa. Heterogeneity in its spread is a new source of variation at both population and household levels. In particular, mortality and morbidity associated with HIV epidemics can impact upon countries' levels of GNP, debt and government expenditure on education. They also affect the investment needed to maintain a given level of education through their impact on teachers and other key personnel (Kelly, 2000). At the household level, HIV epidemics alter the socio-demographic and economic characteristics of households and caregivers (World Bank, 1997).

HIV-associated adult mortality is also causing unprecedented levels of orphanhood (Hunter, 1990; Gregson, Zaba & Garnett, 1999; UNAIDS, UNICEF & USAID, 2002). In an analysis of data from the early 1990s, Lloyd and Blanc found that parents' survival status made little difference to children's primary school enrolment and grade attainment (Lloyd & Blanc, 1996). However, they noted that whilst "family support networks adapt themselves so as to minimize the consequences of orphanhood on children's educational chances" ... "this resilience may diminish as the effects of the AIDS epidemic become more pronounced." As the scale of orphanhood increases and numbers of available carers decline, the strain on the extended family-which is already being eroded by the pressures of development-may begin to tell (Seeley et al., 1993; Sengendo & Nambi, 1997; Urassa et al. 1997). Furthermore, many orphans' access to school education may be detrimentally affected by the stigma associated with AIDS.

It is not surprising therefore that recent reports reveal substantial differences in school enrolment according to the survival status of children's parents (Konde-Lule, 1997; Muller, Sen & Nsubuga, 1999; Kelly, 2000; UNAIDS, UNICEF & USAID, 2002; Ainsworth & Filmer, 2002). Effects vary between countries but, in general, orphans are less likely to be enrolled in school than non-orphans of the same age (Nyamukapa et al., 2002; Case, Paxson & Ableidinger, 2002). As a rule, children from poorer households have lower access to education, and orphans tend to live in poorer households (Ainsworth & Filmer, 2002). However, this does not account for orphaned children's lower levels of school enrolment. Indeed, whilst paternal orphans typically live in poorer households than non-orphans they suffer no disadvantage in access to education; on the other hand,

there is less evidence that maternal orphans live in poorer circumstances than other children but they are less likely to be enrolled in school (Bicego, Rutstein & Johnson, 2002).

An alternative explanation could be that the different educational experiences of children according to their orphan status reflect differences in the sources and types of support that non-orphans, paternal orphans, maternal orphans and double orphans typically receive from within and outside the household of residence. To some extent these must reflect differences in the options available in each case. Most obviously, orphaned children have less possibility of living with a natural parent. The significance of this has been shown in a study of 10 African countries which found that a greater tendency for orphans to be living with more distant relatives or unrelated caregivers contributes to their lower level of school enrolment (Case, Paxson & Ableidinger, 2002). However, certain obstacles may be removed and new opportunities arise when the father or mother dies. Thus, in a community study in Kagera, Tanzania, it was found that paternal and double orphans-but not maternal orphans-were more likely than non-orphans to receive schooling assistance from individuals living outside the household. Orphans as a whole and double orphans especially were more likely to have received assistance from government or non-governmental organisations (NGOs) (Ainsworth, Beegle & Koda, 2002). All forms of orphans and non-orphans had higher school enrolment rates if their household had received external assistance.

In this paper, we examine these issues more closely through a case study of populations in Manicaland, Zimbabwe's eastern province. Access to school education in Zimbabwe is amongst the best in Africa: 97% of 15-24 year olds are literate and 79% of children reach at least grade 5 (UNDP, 2002). However, more than a quarter of adults aged 15-49 years are currently infected with HIV (UNAIDS, 2002). Orphan levels have increased gradually but inexorably since the onset of the epidemic (Foster et al., 1995; Gregson, Zaba & Garnett, 1999; Zimbabwe National AIDS Council, Zimbabwe Ministry of Health and Child Welfare, The MEASURE Project & CDC Zimbabwe, 2002). The most recent available national level data (Machirovi, 2000) show that there are substantially more children who have lost their fathers only (9.7%) than there are whose mothers have died but fathers are still alive (2.7%) or who have lost both parents (2.2%). The Demographic and Health Survey figures for Manicaland province are somewhat higher (11.2%, 2.9% and 2.9%), reflecting the predominantly rural nature of the province (Nyamukapa, Foster & Gregson, 2003). HIV prevalence appears now to be peaking in Zimbabwe but orphan levels-and especially those for maternal and double orphans-are expected to rise substantially over the next five to ten years as adults who are currently living with HIV succumb to AIDS (Preble, 1990; Gregson, Garnett & Anderson, 1994; UNAIDS, UNICEF & USAID, 2002).

In a study of 14,000 children living in over 8,000 households in Manicaland enumerated between July 1998 and February 2000, 9.4%, 1.7% and 1.4% of children were paternal, maternal and double orphans, respectively, in populations where 19% of men and 28% of women were infected with HIV. The average ages of paternal orphans

(9.1 years), maternal orphans (9.9 years) and double orphans (10.0 years) were each higher than the average age of non-orphaned children (6.9 years). After controlling for differences in age, we found evidence for an influence of parental survival on children's educational chances (Nyamukapa, Foster & Gregson, 2003). Maternal orphanhood was associated with reduced chances of having completed primary school amongst 13-15 year-olds, and the longer the period since the mother died the lower were the chances that the child had completed school (age and sex-adjusted odds ratio for each year since the mother's death, 0.88). In contrast, paternal orphanhood-which is currently much more common-actually improved children's educational prospects (adjusted OR, 1.07).

In this paper, we develop this case study in two ways. First, we present findings from an in-depth analysis of the quantitative data collected in the study on the contribution of differences in socio-economic and family circumstances at the household level between different types of orphans and non-orphans to the observed differences in primary school completion rates. Second, we present results from an in-depth qualitative investigation of extended family childcare arrangements and dynamics and of government and NGO support and on how these differ according to children's orphanhood status.

The findings suggest that children's immediate household circumstances influence their primary school completion chances. Co-residence with a parent or grandparent substantially improves children's education prospects but it is the sex of the surviving parent that is the primary determinant of how orphanhood impacts upon

children's educational chances. Maternal orphans may be more vulnerable than paternal orphans because fathers are less strongly motivated to care for them. In part, as a consequence of this, but also because fathers are more likely to have another spouse who is unwilling to care for their previous wives' children, maternal orphans are less likely to live with their surviving parent. Extended family arrangements for orphaned children are being seriously eroded by processes of socio-economic development and over-stretched and over-burdened by AIDS deaths. However, members of the extended family are particularly unlikely to assist with a child's educational needs so long as the father is alive-as indeed are external donors.

#### **Data and Methods**

The quantitative data presented in this paper are drawn from a wider stratified population-based survey (the 'Manicaland Study') of the epidemiology and sociodemographic impact of HIV in eastern Zimbabwe (Gregson et al., 2002; Gregson and Chandiwana, 2001). Prior ethical approval for the study was granted by the Research Council of Zimbabwe-Number 02187-and the Applied and Qualitative Research Ethics Committee, Oxford, United Kingdom-N97.039. The study areas consisted of twelve sites: four large scale commercial farming estates, two roadside trading centres, two small towns and four subsistence farming areas. Trained enumerators identified and visited a total of 8,399 households in a preliminary household census in the study sites. In total, 14,169 children aged less than 16 years were identified in these households. For each of these children, information on the identities (using birth certificates), survival status and,

where appropriate, years of death of their natural parents was recorded. In addition, information on the age and sex of the child, the household head's sex, age, education and relation to the child, the location and socio-economic status of the household, and the child's educational status was recorded.

The SPSS-PC and STATA version 7 statistical packages were used for data entry and cleaning and for data analysis, respectively. Primary school completion rates (13-15) year-olds) by sex and orphan status were calculated. Children's household socioeconomic and family circumstances were tabulated and compared for different types of orphans and non-orphans. Socio-economic indicators included location of household, socio-economic status of the household head, and radio ownership and residence in a dwelling with a finished floor. The latter two factors have been shown previously to be good summary indicators of the socio-economic status of households in Manicaland (Lewis, 2000). Logistic regression analysis was used to identify which factors are important in determining children's (aged 13-15 years) chances of completing primary school and to establish whether differences in the household circumstances of the various types of orphans and non-orphans can explain the differences seen in their primary school completion rates. Separate analyses were conducted for boys, girls and both sexes combined. Since primary school completion is the product of a number of years of childhood experience and the effects of parental death are also liable to accumulate over time-i.e., a parent's death will generally have little effect when the child is already close to completing school-the latter were investigated in these analyses by calculating and applying variables for the number of years since the father or mother had died.

Data on the extended family system and on extended family arrangements for the care and education of orphaned children were collected in in-depth interviews with children and their primary caregivers in four of the twelve study areas during 2002. These areas comprised one each of the commercial farming estates, roadside trading centres, small towns, and subsistence farming areas. In each area, 12 pairs of children aged 10-16 at last birthday (comprising equal numbers of non-orphan, paternal, maternal and double orphans) and caregivers were selected at random from children listed in household questionnaires completed in the follow-up survey for the Manicaland Study. In practice, 51 pairs of children and caregivers were interviewed mainly because of misclassifications of age, sex and orphan status in the household survey. In total, 7/51 were out of school, four of whom were double orphans. Fourteen caregivers were male and 37 female. One caregiver (for a double orphan) was a teenager and 5 were over 65 years of age. 40/51 were unemployed.

A key informant interview was conducted with a local community leader and 2 focus group discussions were held with groups of community elders. These interviews and discussions were used to elicit information on the traditional extended family system, on how it has adapted over the years in response to socio-economic development and other influences, and on perceptions as to how it functions currently. Key informant interviews were held with 5 representatives of government and NGO and donor organisations to establish their perceptions of the situation of orphaned children and their strategies for providing assistance. Interviews and group discussions were recorded,

transcribed and translated. The translated notes were then analysed systematically using N5 software to identify relevant processes and recurring themes.

## Results

Orphanhood and primary school completion

Overall 65% (1,704/2,608) of the children aged 13-15 years at last birthday in the study populations had completed their primary school education. Primary school completion rates by orphan status were as follows: paternal orphans (68% - 217/317), maternal orphans (53% - 41/77), double orphans (69% - 50/73) and non-orphans (65% - 1,396/2,141).

The household circumstances of children by orphan status are shown in Table 1. HIV prevalence is highest in the small towns-27% of men and 46% of women compared to 15-18% of men and 22-28% of women in the more rural areas (Nyamukapa, Foster & Gregson, 2003)-but orphan levels are relatively low in towns largely because households in these areas often relocate to their rural homelands in the event of terminal illness and death (Mushati et al., 2003).

Paternal orphans lived in similar quality accommodation to non-orphans but were less likely to be living in a household that owned a radio (OR=0.70; p<0.001). Most paternal orphans remain with their mothers in female-headed households. Often widows remain in the same homesteads after their husbands die but are forced to sell assets to pay

for healthcare or funeral costs (Mutangadura, 2000; Mushati et al., 2003) and to yield property to relatives (Gilborn et al., 2001). Fewer women than men are employed in the formal sector so they have less cash available to purchase assets.

The socio-economic status of the households and that of the household heads of maternal orphans were both very similar to those for non-orphans. There were fewer maternal orphans staying with their fathers than paternal orphans living with their mothers, but this is nevertheless the most common arrangement. Failing this, most maternal orphans stay with elderly grandparents.

Fewer double orphans than other children lived in dwellings with finished floors (OR=0.50; p<0.001) but they were equally likely to live in a household that owned a radio. Double orphans were the most likely to be living with a grandparent and some lived in households headed by siblings in their teens or early twenties. Children who had lost both parents were the most likely to be living with a household head who was unemployed, but also the most likely to live in a household headed by a well educated individual. Many of the latter were in professional or skilled employment.

In Table 2, we examine the influence of parental loss on children's chances of having completed primary school after adjusting for the effects of their household circumstances. If anything, children living in small towns are less likely to have completed primary school than those who stay in rural villages. Living in estates and roadside settlements-where all forms of orphans are found disproportionately-is even

more detrimental. Otherwise, higher socio-economic status of the household of residence is strongly positively associated with school completion for both boys and girls. Living with a female head of household is beneficial for girls. Living with a parent has a strong positive effect compared with living with a more distant relative but, interestingly, the same is also true for residence with a grandparent. After adjusting for these factors, paternal loss remains strongly associated with improved chances of completing school especially among girls. There are fewer maternal orphans in the sample but loss of the mother is still significantly associated with reduced chances of completing school for boys. The relationship may be weaker for girls.

It is interesting to note in passing that, as with children as a whole, orphaned girls within the 13-15 year age group are more likely to have completed primary school than orphaned boys. National data suggest that this comparative advantage disappears at secondary school level (Zimbabwe Central Statistical Office, 1997).

These results suggest that factors beyond the immediate circumstances of the household of residence may be at play. In the following section, we investigate the possible influence of such factors using qualitative data collected from members of the study communities.

Extended family childcare arrangements – in theory and in practice

A person's extended family was said to comprise his or her natural parents and

children and his or her paternal and maternal grandparents, uncles, aunts, nephews,

nieces, cousins, sons- and daughters-in-law.

In Shona culture, paternal kin groups are responsible for meeting the needs of

their members (Bourdillon, 1987). However, the extended family comes together in times

of need and sorrow to assist and work jointly on a way forward. For example, paternal

relatives often contribute meaningfully when a death occurs in a son-in-law's family by

providing a beast (cow, ox or goat), maize meal or money to show solidarity. To cement

relationships, families can assist each other by ploughing fields when there is no yoke of

oxen, by lending hoes and other farming implements, or by assisting in-laws with house

or hut repairs. In keeping with this, paternal relatives are expected to meet almost all of a

child's needs whilst maternal relatives can assist if they wish and can afford to do so

(caregiver, child #32). The latter may help by lending money for payment of school fees

until such time as the paternal kin are able to give it back, which could be after a period

of several years.

Traditionally, selection of wives was done by paternal aunts or grandparents ...

Caregiver, child #32: raivabasa ravana sekuru kuona kuti muzukuru

aroora/kuroorwa mumusha uye nemunhu ane tsika

(It was the responsibility of the aunts and grandparents to see to it that their nephew/niece or grandchild married into a respectable family and married a respectable person)

The kinsmen raised *lobola* (brideprice) payments collectively and shared in the proceeds when a daughter was married. On occasions, the *lobola* can be "eaten" by a father's cousin in return for the child's being able to go to him, as representative for the paternal relatives, for advice and assistance in times of difficulty. Alternatively, a man could use his female paternal cousin's *lobola* to pay the *lobola* for his own wife. In this case, the female cousin became responsible for socialising children born to her cousin's new wife.

When a husband and father dies, a brief family meeting is held at the funeral at which preliminary arrangements are made and the deceased's oldest nephew is charged with ensuring that his property is shared out appropriately or is gathered together and protected until the "beating of the grave" ceremony is held. Alternatively, one of the deceased's brothers or another nominated representative can take on this responsibility on behalf of the oldest nephew. One of the deceased's brothers or cousins is nominated to act as the father figure for his children at least until the beating of the grave ceremony is held.

The main decisions concerning widow inheritance, settlement of outstanding *lobola*, father and mother arrangements for the children and distribution of the deceased's

property are taken one year later at the beating of the grave ceremony. The deceased's relatives including the father figure and the deceased's brothers, uncles and aunts and the widow can meet on their own or have a preparatory discussion before meeting with the in-laws so as to present a united front. The meeting is led by the head of paternal family who speaks through his nephew.

The widow is given a gourd of water or a small sword which she has to pass to one of her late husband's brothers as an indication that she wishes to be inherited by that particular person. Where water is given, the recipient has to show that he is willing to take on this responsibility by drinking the water. Through this act, he confirms that he is prepared to inherit the woman and play father figure to the children. Alternatively, the widow can pass the water to one of her sons which indicates that she does not wish to be inherited but prefers to stay in the same homestead and take responsibility for her own children. She can also pass the water to a female relative from the husband's side, who, in turn, can allocate the role to one of her brothers if they are absent or can take on the fatherly role herself if there are no surviving brothers. In some cases, this can also be an indication that the widow does not wish to be inherited.

Decisions are also made at this meeting on specific aspects of child care. For example, particular relatives may be asked to undertake to assist in provision of school fees, clothing, food and general care. Decisions are based on the deceased's wishes if they were expressed, relatives' relationships to the children, their ability to assist (fully or partially) and on which relatives are considered to be most fond of the children. Those

allocated responsibilities are expected to pledge their willingness to do so in front of the family group. The property of the deceased is usually shared out between the widow, children and maternal uncles and, in some cases, the brothers and father of the deceased.

When a wife and mother dies, a similar procedure is followed. Relatives from the two sides of the family sit down together at the funeral and again at the beating of the grave ceremony to discuss the childcare arrangements, especially when a child is considered still too young to manage without maternal care (below 5 years). Relatives present can include the widower, the fathers of the deceased and the widower, the paternal and maternal grandparents, aunts and uncles on each side and the brothers and sisters of the deceased. As with the death of a husband, the oldest nephew of the deceased takes the lead in the discussion of child care arrangements.

The deceased's children would normally stay with the father if he has another wife or remarries or if they are over 5 years old. A mother figure for the children may be selected from among the maternal relatives who would make regular visits to the household to make sure that motherly roles such as feeding, health care, clothing, payment of school fees, socialisation and general day-to-day care are being done properly and to see how the children are faring. This person should be someone who has had contact with the children before and has shown he or she cares for them (ane rudo here memwana iyeyo). If the widower does not have another wife and the children are very young, this mother figure may be required to look after them him or herself. Another option that can be considered is for the deceased's family to provide a replacement wife

for the widower to raise her children (*chimutsamapfihwa*). Most of the deceased's property-her clothing and kitchen and bedroom equipment-is taken by the maternal relatives who, in turn, could pass it back to the children.

The foregoing is a description of how people in Manicaland believe the extended family system should operate. They recognise that, even in the past, the system did not always function in its idealised form and that relatives sometimes failed to fulfil their responsibilities.

Caregiver, child #31: "Kareko havasi vose vaikwanisa nherera kuchikoro"

(Even in the olden days not all who cared for orphans were able to send them to school)

Specific circumstances such as non-payment of *lobola* could lead to friction and breakdowns in communication between and among the paternal and maternal families resulting in decisions on children's well-being being overlooked (e.g., child #18). Child #40 was not in school due to a dispute between the paternal and maternal families. Child #36's late father had not got along with his brothers and his widow thought this could be the reason why they showed little concern now.

The extended family system has always adapted over time to changing circumstances (Bourdillon, 1993). However, whether the system is currently adapting or disintegrating in the face of contemporary pressures must be open to question.

Contemporary pressures were said to include work-related migration and resettlement leading to family dispersal, marriages between people from different cultures, Western influences, NGO programmes, poverty and the rising cost of living, and HIV/AIDS.

In one case (child #41), a family meeting was held but only the deceased's father and brother attended because the maternal relatives were unable to attend because of the distances involved. Similar difficulties meant that the relatives nominally responsible for children's socialisation were unable to make the necessary visits. In most cases this role is now left to the immediate caregivers (e.g., child #2, child #33 and child #44) sometimes with assistance from the church (child #26).

Intermarriages between members of different dialects were causing clashes of culture (e.g., child #21). Marriages between people from different parts of the country were making it difficult for families to cement relationships between each other. A councillor in a focus group discussion who had been married in Bulawayo cited himself as an example. In such situations it was difficult for families to care for orphans together because of the distances involved:

Caregiver, child #2: "Kudyidzana hatichanyanyi nekuti upenyu hwaoma" (People are rarely interacting because life now is hard)

Focus group discussion participant, Honde Valley: "Vanhu vairoorana wematongo asi zvino mhiri kwamukungwa kwava kuvanikwa mukadzi"

(People used to marry within their locality but these days one can get a wife from overseas)

Western role models and western-inspired ideas and initiatives on women's and children's rights had led to new Government legislation on wills and inheritance. These were promoting individualisation and narrowing individuals' roles and responsibilities within the family and were thereby weakening the extended family system.

Caregivers, child #33 and child #35: "Vanhu varasa tsika dzavo vava kutevedzera chirungu"

(People have lost their traditional ways and are following western culture)

They undermined male authority within the family and the community and wills that specified that all the property should remain with the widow were often a source of tension within families. It was argued that these changes were leading to neglect of widows and children. Sometimes, people were now afraid to take responsibility in case they were found to be on the wrong side of the law. When a will had been prepared, relatives often felt they had to follow its provisions regardless of whether or not the surviving children needed external assistance. NGO programmes sometimes undermined rather than reinforced the extended family system and reduced self-reliance. Relatives now use these programmes as an excuse for not playing their proper roles in child support arrangements.

Breakdown of the marriage system was causing complications. Child #48 was a double orphan who had been born out of wedlock. Neither family recognised the union. It was left to a paternal aunt who had visited the mother and was able to testify that the child was her brother's to persuade the family to assist. The parents of child #39, another double orphan, had separated. The mother had taken her to the maternal home but the paternal grandfather had reclaimed her after the mother died. The child was now being used as a weapon between the two families. Child #40, a maternal orphan who had been born out of wedlock, had been left in the care of his maternal grandmother after his mother remarried. He had dropped out of school while doing grade 5 when the mother died and the grandmother was unable to raise the fees herself.

Increasing poverty has led to orphan care arrangements being decided upon largely on economic grounds.

Caregiver, child #2: "Economic hardships mean that it is not easy for anyone to take in somebody else's child"

Labour migration associated with economic development was said to be taking husbands away from home and thereby exposing them to HIV/AIDS. The influence of HIV/AIDS was also very apparent. Rising numbers of orphans and shortages of close relatives to take care of orphaned children because of the high death rate were mentioned as being major difficulties. The caregiver of child #24 said that she had lost three of her children in the space of one year, two of whom had left orphans for her to care for.

Caregiver, child #24: "Kare kwaita ndufu asi nherera dzaiwa shoma pamwe imwe kana mbiri. Asi nhasi musha vose unokwanisa kuvharwa"

(Even in the olden days people used to die but orphans were one or two. But today a whole family could be wiped out of adults)

Caregiver, child #20: "Isu pano murume vangu akafa kwapera gore muninina wake akafawo"

(Here we lost my husband first and only a year later his young brother died)

Child #26's relatives had died before his parents and those that remained were not so closely related and were less committed to taking care of the children. Even though there was money for school fees, child #24 was taken out of school to care for her mother who had became ill with tuberculosis. HIV/AIDS was also changing attitudes to specific practices. For example, the practice whereby a deceased women's family would provide another wife for the widower has become less common (e.g., caregiver, child #3).

The extended family system and orphan care and education today

The extended family system remains very real within the collective consciousness in Zimbabwe today and is usually the first point of reference when a problem arises. Most respondents knew the roles and procedures but, for the reasons outlined above, these were often pushed into the background, ignored or considered impractical. In practice,

families are rarely giving each other roles and monitoring how these are performed as is expected under the traditional system.

Caregiver, child #32: "Marriages today are a matter of convenience not to cement relationships between two families. Family members are no longer involved in courtship and selecting a wife"

Participants in a focus group discussion: "People are just not willing to look after a deceased's relatives"

In some cases, we found that the proper procedures were being followed (e.g., child #12 and child #16). One of the double orphan's (child #22) relatives had held the family meeting in the prescribed fashion and had agreed to share the burden of childcare. The maternal grandmother took in the youngest child as is expected. Child #41's family had a family meeting after the death of his father at which the mother was asked to say whether she wished to stay in the homestead or return to her maternal home. She decided to stay in the homestead and was told to use part of the rent for the house that they owned in Harare and the husband's pension to pay the younger children's school fees. One of the husband's brothers pledged to assist if there was a shortfall. A paternal aunt took in the older children and is paying for their higher education tuition expenses.

Child #42's family also had a meeting at the beating of the grave ceremony. The mother gave water to a paternal aunt-to indicate that she did not want to be inherited-who

drank the water. There was no discussion of school fees at the time because the children were still very young and because it was suspected that the father might have died from AIDS and it was feared that they might not reach school-going age.

Caregiver, child #42: "Vaifunga kuti vana ava havararami kusvika pari nhasi"

(They thought the children would not survive up to today)

In several instances (child #19, child #20 and child #21), relatives took on responsibilities in line with the deceased's wishes as expressed before the death. For example, child #33's grandmother had respected his mother's request to take care of him up to grade 7 ("Mai wake vakati ndimeundese kuchikoro kusvika grade 7").

In other cases, the arrangements made could be seen as being consistent with adaptation in the extended family system. The increasing role of maternal relatives in situations where the paternal relatives are nominally primarily responsible has been recognised for some time (Foster et al., 1995) and can be seen to have a number of positive effects at a time when the system is generally over-stretched-for example, in capitalising upon the close bonds between mothers and their children and in increasing the range of possible care arrangements when a father dies.

Caregiver, child #32 (an uncle looking after a double orphan): "Most maternal relatives are providing care, yet it should be the paternal relatives' responsibility to

provide for most of the child's needs. I think, if we can afford it, I don't see anything wrong with that"

As we have already noted, wills can be a source of tension between relatives but can also be seen as being consistent with the traditional respect for the wishes of the deceased.

On many other occasions, childcare arrangements were made that capitalised upon the family connections that exist within the extended family system and the general sense of mutual obligation, but that were neither arrived at through the proper procedures nor reflected the proper roles. In many cases, these arrangements relied upon the good nature of particular individuals regardless of whether they were most appropriately situated within the extended family or were in the best position financially to assist.

No decision was made as to who should pay the school fees for child #26 (double orphan) at his father's funeral. The paternal relatives came afterwards to sort out the pension and arranged for the money to be deposited into the child's account. During this visit, the maternal uncle who already had several other late relatives' children to look after had agreed that the child and his younger brother should move from the small town to stay with the paternal relatives in a rural area in Makoni District. The idea was that these relatives could use money from the pension to pay the children's school fees. However, they had not yet moved and the cousin who was currently caring for him felt that it would not have been "good for them to just be uprooted and thrown into a totally

different environment for they had been used to an urban life since they had been born."

The child respondent commented that these new relatives had never been to see them before but that now there was money "they are prepared to take care of us."

In another case, the maternal aunt took away her sister's child because after separating from her husband, the sister had turned to prostitution for survival and was bringing men into the same room that she was sharing with the child:

Caregiver, child #27: "Ndinoda kuti (name) ave neupenyu huri nani kwete kukura achifunga kuti upenyu hunoitwa namai hunomupa mari nyore"

(I wanted (name) to have a future and not think what her mother was doing is the quickest way to earn money)

At the extreme, childcare arrangements were sometimes made by default because no other family members were available to assist. The maternal grandmother of child #18 went to visit her daughter in Mutare and found her very ill so decided to take both the mother and child back to the rural areas. The mother subsequently passed away and the grandmother felt she had no option but to take responsibility for the child.

Child #31 was being cared for by her mother with no help from the father's relatives:

Caregiver, child #31: "Vakangoviga hama yavo ndokuenda kudzimba dzavo.

Havana hanya zvachose. Handikwanisi kuenda kwavari nekuti ivo ndivo vanofanira kuuya kwandiri kuzobvuna"

(They buried their relative and left for their homes. They don't seem to care at all.

I cannot go to them for they are the ones who should come to me to ask how the children are faring)

The caregiver for child #35, a maternal orphan, also complained of receiving no assistance from the paternal relatives even at the funeral.

Child #46's parents had been staying together in Harare as an unmarried couple. When the mother fell ill, the father took her and the children to stay with her mother in Masvingo because he had never met the paternal side of the family. The grandmother was divorced from the grandfather but took her ailing daughter to stay with him and the daughter died three days later. After the funeral, the grandmother took the children to the step-grandmother and went away.

Caregiver, child #46 (step-grandmother): "Hapana zvekuzviita asi kuchengeta nekuti vana vemwana vemurume vangu. Ndongochengeta ndingadini"

(There is not much to do for they are my husband's daughter's children. I have to look after them)

Factors affecting primary school completion following paternal and maternal death

The results from the analysis of the quantitative data indicated that children's chances of having completed their primary school education by any given age were not reduced when they had lost their fathers. Indeed the reverse seemed to be true. Two possible explanations emerged from the focus group discussions and in-depth interviews.

The first explanation was that paternal and maternal relatives were more likely to assist when the father had died. When the father is alive, other relatives see him as being responsible for making the decisions concerning his children's education and, as the principal bread-winner for the household, as being responsible for raising the necessary funds-e.g., Child #48: "Since the father is there [it was] felt he could still play the role." However, when the father has died, there is more reason for them to take a close interest and possibly to assist with school fees, etc. This is primarily the responsibility of paternal relatives and in 4/13 cases, the mothers of paternal orphans were receiving at least some assistance from the late father's relatives. Child #39's (female, aged 15) paternal uncle had taken on responsibility for paying her school fees but was sometimes unable to do so. At these times, his sister's husband would assist. Child #20's (m14) paternal cousin and aunt pay his school fees. Child #21's (f10) paternal aunt's husband visits the homestead roughly once a year and leaves money for school fees. In between times, the mother pays the fees herself. Child #36's (f13) mother usually pays her school fees with occasional assistance from her (the child's) paternal uncle.

It was said that maternal relatives might also contribute. Even when the father is alive, a close bond between the maternal relatives and the children is encouraged, and they have a particular responsibility to counsel the children following the death of their father or mother. It was said that maternal relatives feel a responsibility to assist since they received *lobola* when the women (mother) was married.

Participants in focus group discussion, Honde Valley: "Vanoedza kuvharidzira kutambura kwemwana vavo nekuedza kumubatsira pose apo anogona napo"

(Maternal relatives usually try to hide the poverty of their female relatives by meeting their needs)

However, we came across only one case (child #25) in which maternal relatives were assisting with school fees within the small sample of paternal orphans selected for in-depth study.

The second possible explanation is that mothers are more willing than fathers to make sacrifices to ensure their children get the best possible education. This could be a product of their closer maternal and day-to-day connections with the children (especially in a context when men often work away from home) or because widows, in particular, feel they will be reliant on their children when they reach old age.

A number of widows had decided not to remarry because they might be expected to leave their existing children with paternal relatives.

Mother, child #41: "I was no longer interested in remarrying for I realised that my children would have nobody to look after them since, even before the father died, communication with his relatives was not good at all"

Mother, child #42: "I thought it would be good for me to stay and look after her children [rather] than for somebody to come and take care of my kids after I had gone"

We came across a number of instances where women were making substantial efforts to keep their children in school. The mother of child #42 (m12) was receiving no assistance from relatives but grows potatoes, sweet potatoes, maize and beans for sale and uses the proceeds to meet household costs and to pay for her son's school fees. The mother of child #25 (f12) moulds bricks and weeds other people's fields to raise money to pay the fees. On occasions she receives help from her younger brother and sister. Child #10's (m16) mother works as a farm health worker on a local tea estate to raise money for school fees and is sometimes assisted by her older daughter who works as a bartender on the same estate. Several other women (child #22 (f10), child #29 (m10), and child #37 (f14)) were raising funds from sales of agricultural and other produce to keep their children in school.

The mothers of child #31 (f14) and child #41 (m13) had rented out their former husbands' houses in towns and had moved to rural areas where the cost of living is cheaper. Both women were using the proceeds to supplement income from casual employment and sales of agricultural produce.

The poorer primary school completion rates of maternal orphans are perhaps easier to understand and may, in part, reflect the factors discussed above-i.e., the absence of their mothers' strong commitment to keep them in school and the more limited interest shown by other relatives so long as the natural father is alive. The other major factor that it was thought probably contributed was the relatively weak level of concern exhibited by fathers once the children's mother had died. This was sometimes exacerbated by the fathers' remaining or new wives declining to care for the deceased's children or giving greater priority to the needs of their own children.

Several cases were found in which the father was paying the children's school fees. Child #12 (f13) and child #13 (f13) live with their fathers who work on the tea estate and use their wages to pay the fees. Child #28 (f14) stays with her father and stepmother in the small town and has her school fees paid. Child #30 (m10) also stays with his father in a small town who has been paying the fees but is now sick and has stopped working.

However, there were other cases where the father was not paying the child's school fees. Child #40 (m14) was staying with his grandmother and was not in school because she was unable to raise money for the fees. The grandmother also looks after the daughter of the child's aunt who sends money for her school fees but not for the child.

Child #35 (f13) and child #49 (m12) were in school but an older brother and a maternal aunt were paying the fees, respectively. Child #46 (m12) is in school; he is

staying with the maternal grandfather and his wife who are paying the fees. They have never met the father who is believed to be in Harare. Child #38's (m14) father is unemployed and stays with the child's mother's elder sister (modified form of *chimutsamapfihwa*). PLAN International are paying the school fees.

## Government and NGO assistance

The Government (Department of Social Welfare) runs programmes of assistance for orphans and other children in difficult circumstances. These include the BEAM (Basic Education Assistance Module) programme, which provides assistance with school fees, Public Assistance (food), counselling, fostering and relocation of orphans to identified surviving relatives or communities, medical assistance, and income generating projects. They also provide technical support for community nutritional gardens. PLAN runs similar projects. In each case, means testing is done to determine whether children's carers qualified for assistance with school fees and other costs. This may mean that these programmes disproportionately assist paternal orphans as surviving mothers are more likely to be unemployed.

9/14 double orphans, 7/14 paternal orphans, 1/11 maternal orphans and 1/12 non-orphans were receiving assistance of some form from Government or an NGO. Some of the children interviewed had received help with school fees from these programmes-e.g., BEAM: child #22 (f11) (double) and child #23 (f12) (paternal); PLAN International: child #38 (m14) (maternal).

## **Discussion**

The Zimbabwe government and people have made considerable strides in increasing access to education since Independence in 1980. The country's education levels remain amongst the highest in sub-Saharan Africa. However, this achievement is being undermined by the current political, social and economic instability and the effects of one of the world's most severe HIV epidemics. Amongst the latter, the rapid incidence of orphanhood is one of the greatest threats.

Zimbabwe fits the general pattern whereby paternal orphanhood so far has been the most common experience and is typically associated with residence in poorer households but seems to have less serious consequences for access to education than maternal or double orphanhood (Bicego, Rutstein & Johnson, 2002; Case, Paxson & Ableidinger, 2002). This pattern was also replicated in our case study in Manicaland. Our results also support findings from multi-country studies that factors such as residence in a female headed household (Lloyd & Blanc, 1996) and residence with a parent or close relative (Case, Paxson & Abledinger, 2002) are associated with improved educational prospects at primary school level. However, we found that, whilst recent experience of parental loss made little difference to children's primary school completion chances (Nyamukapa, Foster & Gregson, 2003), long durations of orphanhood tended to alter these chances. Extended periods of paternal loss and maternal loss were significantly associated with improved and reduced chances, respectively, of having completed

primary school amongst 13-15 year-olds even after differences in the characteristics and relationship of the household head were taken into account.

More in-depth investigation in Manicaland revealed that the differences in the experiences of paternal and maternal orphans may be explained by aspects of the extended family system. For example, maternal orphans are less likely to live with their surviving parent. However, even when they do, their educational needs may be given low priority by their father and his current wife. Recent changes in the extended family system mean that most mothers now continue to look after their children following the death of their husbands and acquire more direct responsibility for the education of their children. The long-term decline in widow inheritance has been accelerated by concerns about the spread of AIDS. Many widows prefer not to get remarried precisely because they are worried about the subsequent well-being of their children. We found that they are prepared to make considerable sacrifices to safeguard the education of their children, possibly because their weaker position within the local culture makes them more reliant on their children for economic support particularly in old age. The low socio-economic status-when measured by ownership of assets-of the typically female-households where paternal orphans live may be misleading in so far as investments in household assets are being traded for less tangible investments in children's school education.

\_

<sup>&</sup>lt;sup>1</sup> Relative under-reporting of household assets could be another contributing factor-in a study in Kenya, husbands were found to be systematically more likely to report ownership of household assets than co-resident wives (Miller, Zulu & Watkins, 2001).

Under the traditional extended family system, paternal and maternal relatives establish and monitor arrangements for the care of a kinsman's children. Specific duties are assigned to individual relatives either explicitly within the system itself or by responsible individuals or at family gatherings. However, we found that the cumulative effects of long-term processes such as socio-economic development and Westernisation and the more recent economic and AIDS crises had seriously eroded the extended family system in Manicaland.

Strains in the extended family system were manifested in children being cared for by increasingly more distant relatives and receiving less support from non-co-resident family members (Foster, 2000). In both cases, this was particularly so for maternal orphans for whom the father was expected to make arrangements. Similar patterns of external support by orphan status were reported in the World Bank study in Kagera, Tanzania, where assistance from beyond the household was found to be associated with higher primary school enrolment (Ainsworth, Beegle & Koda, 2002).

The positive statistical associations between residence in a female headed household and death of a father and primary school completion were particularly strong for girls. Similar results have been reported in a rural sub-district of South Africa's Northern Province (Townsend et al., 2002) and in a multi-country study (Lloyd & Blanc, 1996). Thus, when women are more closely involved in decisions on the education of their children, it appears that they give greater priority to the schooling of girls than do men.

Overall, our data fit the pattern seen in Zimbabwe as a whole whereby more girls than boys are enrolled in primary schools (Zimbabwe Central Statistical Office, 1997; Atekyereza, 2001; Aspaas, 1999). However, it is important to recognize that patterns of relative advantage and disadvantage observed at primary school level may not continue once children progress to secondary school. For example, the Zimbabwe Census 1992 results also showed a strong male advantage in enrolment at secondary school level. Thus, the absolute and relative effects of paternal and maternal orphanhood may also differ at secondary school level, especially as older children tend to have experienced longer periods of orphanhood.

The focus of this study has been on children who live in households in the general community. Disproportionate numbers of children who live in institutions or on the street are probably orphans and double orphans. However, overall, the proportion of children who live in orphanages (Foster et al., 1995; **Greg Powell ref.**) and on the street (UNICEF, 2001) in Zimbabwe is extremely small so this would not be expected to be a major factor at the population level. More important may be the exclusion of children currently attending boarding schools. In the age group studied, children who have completed primary school successfully are more likely to have progressed to secondary school and this may mean that they staying away from home more often than other children. This will cause our estimates of primary school completion to be understated and may distort our comparison of the experiences of different types of orphan and non-orphans if orphan status is associated with enrolment in boarding schools.

A strength of the study is that we have sought to go beyond examination of school enrolment rates to assess the impact of orphanhood on an educational outcome in the form of primary school completion. However, an important limitation is that this still tells us nothing about the quality of education received or about qualifications obtained. These aspects are clearly critical in regard to children's prospects as they become adults. Growing up without a parent may not lead to disadvantage in school enrolment but still cause disruptions in education (e.g., more frequent absences or changes of school) and psychological distress that interfere with the quality of education received (Kelly, forthcoming). The loss of a mother typically causes the greatest psychological distress to a child (Makame, Ani & Grantham-McGregor, 2002), which suggests that the educational disadvantage of maternal orphans could be even greater.

While there are significant variations in primary school completion by child's orphan status in Manicaland, it is interesting to note that this appears to have no effect at the population level. The primary school completion rate among all 13-15 year olds (65.3%) is very similar to that for non-orphans (65.2%). This reflects two aspects of the underlying demography. First, to date, more orphans have lost their father than have lost their mother; and, second, many maternal and double orphans were already several years into their school education when their mothers died. Since the effects of paternal and maternal orphanhood on the chance of completing primary school are each progressive with longer duration of parental loss, the positive experience of paternal orphans outweighs the negative experience of maternal orphans at the population level.

An important caveat to this is that it assumes that the education chances of non-orphans have remained constant. In practice, their opportunities may have been eroded inadvertently by the emphasis on ensuring orphans' education and because family resources are increasingly overstretched. The education of some non-orphans may have suffered because their parents are ill. In addition, it must be borne in mind that maternal loss becomes more common as HIV epidemics age (Gregson, Garnett & Anderson, 1994; UNAIDS, UNICEF & USAID, 2002) so the population level impact is liable to grow unless support measures are intensified.

As we noted earlier, the pattern of orphanhood and its impact on education in Manicaland is consistent with the general pattern observed in other populations in sub-Saharan Africa and our findings are likely to be of wider relevance. However, there is considerable variation within the general pattern. Therefore, to some degree, our findings reflect circumstances that are peculiar to the study area. For example, the underlying culture, the level and pattern of development, and the size and stage of the HIV epidemic. Further community level case studies and multilevel analysis of national level data could help to improve our understanding of the sources of variation in the effects of different forms of orphan experience that are seen between countries.

The results of the study raise some important issues for policy. The finding that primary school completion remains high among paternal and double orphans is encouraging. The caregivers of these children appear to be accessing support from extended family members but also from government and NGO sources. The latter

programmes therefore need to be maintained and strengthened. In addition, more information is needed on the quality of the education paternal and double orphans receive and on their educational achievements. The low level of access to education seen among maternal orphans is clearly a concern. Policies are needed that encourage and support fathers in giving greater priority to their children's education.

Finally, there is a concern that some aspects of orphan care programmes and new legislation are serving to undermine rather than to strengthen the extended family system upon which these and other programmes (e.g., home based care and community orphan support) often depend. For example, relatives were declining to provide assistance for orphans on the grounds that they were not given the share of the deceased's property to which they were entitled under the traditional extended family system. Others decline to assist with payments of school expenses because this is now seen as being covered by government and NGOs. In each case, this leads to further reductions in contacts between family members and a weakening in family ties. Several respondents in the study called for more vocational training and community development projects so that orphans and their caregivers can be more self-sufficient.

Caregiver, child #26 "If you give a man a fish you feed him for a day but if you teach him how to fish he can feed himself for a lifetime"

## References

Ainsworth, M. and Filmer, D. 2002. *Poverty, AIDS and Children's Schooling: A Targeting Dilemma*. World Bank Policy Research Working Paper No. 2885. Washington, D.C.

- Ainsworth, M., Beegle, K. and Koda, G. 2002. *The Impact of Adult Mortality on Primary School Enrolment in Northwestern Tanzania*. Africa Region Human Development Working Paper Series. World Bank, Washington, D.C.
- Aspaas, H.R. 1999. AIDS and Orphans in Uganda: geographical and gender interpretations of household resources. *The Social Science Journal* **36**, **2**, 201-226
- Atekyereza, P.R. 2001. The education of girls and women in Uganda. *Journal of Social Development in Africa* **16**, **2**, 115-146.
- Bicego, G., Rutstein, S. and Johnson, K. 2002. Dimensions of the emerging orphan crisis in sub-Saharan Africa. *Social Science and Medicine* **56**, **6**, 1235-1247.
- Bourdillon, M. F. C. 1987. *The Shona Peoples*. Mambo Press, Gweru.
- Bourdillon, M. F. C. 1993. *Where are the Ancestors? Changing Culture in Zimbabwe*. University of Zimbabwe, Harare.
- Case, A., Paxson, C. and Ableidinger, J. 2002. *Orphans in Africa*. Princeton University, New Jersey.
- Foster, G., Shakespeare, R., Chinemana, F., Jackson, H., Gregson, S., Marange, C. and Mashumba, S. 1995. Orphan prevalence and extended family care in a peri-urban community in Zimbabwe. *AIDS Care* **7**, **1**, 3-17.

Foster, G. 2000. The capacity of the extended family safety net for orphans in Africa. *Psychology, Health and Medicine* **5**, **1**, 55-62.

- Gilborn, L.Z., Nyonyintono, R., Kabumbuli, R. and Jagwe-Wadda, G. 2001. *Making a Difference for Children Affected by AIDS: Baseline Findings from Operations Research in Uganda*. Horizons Program and Kampala, Makarere University, Washington D.C.
- Gregson, S., Garnett G.P. and Anderson R.M. 1994. Assessing the potential impact of the HIV-1 epidemic on orphanhood and the demographic structure of populations in sub-Saharan Africa *Population Studies* **48**, 435-458.
- Gregson, S. and Chandiwana, S.K. 2001. The Manicaland HIV/STD Prevention Project: studies on HIV transmission, impact and control in rural Zimbabwe. *Zimbabwe Science News* **35**, 27-42.
- Gregson, S., Zaba, B. and Garnett G.P. 1999. Low fertility in women with HIV and the impact of the epidemic on orphanhood and early childhood mortality in sub-Saharan Africa. *AIDS* **13**, Supplement A, S249-S257.
- Gregson, S., Nyamukapa, C., Garnett, G.P., Mason, P.R., Zhuwau, T., Careal, M., Chandiwana, S.K. and Anderson, R.M. 2002. Sexual mixing patterns and sex-differentials in teenage exposure to HIV infection in rural Zimbabwe. *Lancet* **359**, 1896-1903.
- Hunter, S.S. 1990. Orphans as a window on the AIDS epidemic in sub-Saharan Africa: initial results and implications of a study in Uganda. *Social Science and Medicine* **31**, 681-690.
- Kelly, M.J. 2000. The Encounter between HIV/AIDS and Education. UNESCO, Harare.

Kelly, M.J. forthcoming. *The school response to the educational needs of orphans and children affected by HIV/AIDS.* 

- Konde-Lule, J.K. 1997. The impact of AIDS on families in Rakai District, Uganda. *XI International Conference on HIV and AIDS*, Vancouver, Canada.
- Lewis, J.J.C. 2000. Orphanhood prevalence in rural Zimbabwe. Dissertation submitted for MSc in Applied Statistics, University of Oxford, United Kingdom.
- Lloyd, C. and Blanc A. 1996. Children's schooling in sub-Saharan Africa: the role of fathers, mothers and others. *Population and Development Review* **22**, **2**, 265-298.
- Machirovi, L.M. 2000. Zimbabwe Demographic and Health Survey 1999. Harare, Zimbabwe Central Statistical Office and Macro International.
- Makame, V., Ani C., and Grantham-McGregor, S. 2002. Psychological well-being of orphans in Dar Es Salaam, Tanzania. *Acta Paediatrica* **91**, **4**, 459-465.
- Miller, K., Zulu, E.M. and Watkins, S.C. 2001. Husband-wife survey responses in Malawi. *Studies in Family Planning* **32**, **2**, 161-174,
- Muller, O., Sen G. and Nsubuga A. 1999. HIV/AIDS, orphans and access to school education in Kampala, Uganda. *AIDS* **13**, **1**, 146-147.
- Mushati, P., Gregson, S., Mlilo, M., Zvidzai, C. and Nyamupaka C.A. 2003. *Adult mortality and erosion of household viability in AIDS-afflicted towns, estates and villages in eastern Zimbabwe*. Scientific Meeting on Empirical Evidence for the Demographic and Socio-Economic Impact of AIDS, 26-28 March 2003, Durban, South Africa.

Mutangadura, G. 2000. Household welfare impacts of mortality of adult females in Zimbabwe: implications for policy and program development. University of North Carolina, Chapel Hill.

- Mutangadura, G. B. and Lamb, V.L. 2003. Variations in rates of primary school access and enrolments in sub-Saharan Africa: a pooled cross-country time series analysis. *International Journal of Educational Development* **23**, 369-380.
- Nyamukapa, C., Foster, G., Lewis, J. and Gregson, S. 2002. Do paternal & maternal orphanhood harm the educational chances of boys & girls? *XIV International AIDS Conference, Barcelona, Spain, 7-12 July 2002*.
- Nyamukapa, C., Foster, G. and Gregson, S. 2003. Orphans' household circumstances and access to education in a maturing HIV epidemic in eastern Zimbabwe. *Journal of Social Development in Africa* In press.
- Preble, E.A. 1990. Impact of HIV/AIDS on African children. *Social Science and Medicine* **31**, **6**, 671-680.
- Seeley, J. Kajura, E., Backengana, C., Okongo, M., Wagner, U. and Mulder D. 1993. The extended family and support for people with AIDS in South West Uganda: a safety net with holes? *AIDS Care* 5, 117-122.
- Sengendo, J. and Nambi, J. 1997. The psychological effect of orphanhood: a study of orphans in Rakai district. *Health Transition Review* **7**, Supplement 1, 105-124.
- Townsend, N., Madhavan, S., Tollman, S., Garenne, M. and Kahn, K. 2001. Children's residence patterns and educational attainment in rural South Africa. *Population Studies* **56**, 215-225.

UNAIDS, UNICEF & USAID. 2002. *Children on the Brink*, 2002. TvT Associates, Washington D.C.

- UNAIDS 2002. Report on the Global HIV/AIDS Epidemic, 2002. UNAIDS and WHO, Geneva.
- UNDP 2002. Human Development Report, 2002: Deepening Democracy in a Fragmented World. Oxford University Press, Oxford.
- UNICEF 2001. A Situation Analysis of Orphans and Vulnerable Children and Adolescents in Zimbabwe: Background Papers. UNICEF, Harare.
- United Nations 2000. We, the Peoples: The Role of the United Nations in the 21<sup>st</sup> Century. United Nations, New York.
- Urassa M., Boerma, J.T., Ng'weshemi, J.Z.L., Isingo, R., Schapink, D. and Kumogola, Y. 1997. Orphanhood, child fostering and the AIDS epidemic in rural Tanzania. *Health Transition Review* **7**, Supplement 2, 141-154.
- World Bank. 1997. *Confronting AIDS: Public Priorities in a Global Epidemic*. Oxford University Press, Oxford.
- Zimbabwe Central Statistical Office. 1997. *Census 1992: In-Depth Analysis Report Volume I.* Zimbabwe Central Statistical Office, Harare.
- Zimbabwe National AIDS Council, Zimbabwe Ministry of Health & Child Welfare, The MEASURE Project and CDC Zimbabwe. 2002. *AIDS in Africa during the Nineties: A Review and Analysis of Survey and Research Results*. Carolina Population Center, University of North Carolina, Chapel Hill.

Table 1: Household circumstances by child's orphan status

	Both parents died		Father died only		Mother died	lonly	Neither parent died	
Household characteristic	Frequency	%	Frequency	%	Frequency	%	Frequency	%
Socio-economic location								
Small towns	7	0.4	143	8.8	29	1.8	1,438	88.9
Estates	44	1.2	287	7.6	63	1.7	3,366	89.5
Roadside settlement	62	_	333	12.4	41	1.5	2,242	
Subsistence farming	77	1.4	500	9.4	96	1.8	4,644	87.3
Socio-economic status of household								
Radio	105	55.3	593	47.0	129	56.3	6,501	55.6
Finished floor	121	63.7	1,012	80.1	178	77.7	9,044	77.4
Household head characteristics								
Female	92	-	989	79.0	87	38.0	3,166	27.2
Under 18	1	0.5	4	0.3	0	0.0	19	0.2
18-24	34		44		21	9.5	492	_
25-59	103		982		143		9,280	
Over 60	45	_	192		56	25.5	1,541	13.6
Secondary school education	77	43.3	260	21.9	76	35.5	4,171	38.1
Professional or skilled employment	32	17.2	117	9.3	49	21.4	3,005	26.1
Unskilled or manual employment	96		853	68.1	133	58.1	6,727	58.5
Unemployed	58	31.2	283	22.6	47	20.5	1,769	15.4
Relationship to head of household								
Parent	_*		834	66.1	94	41.0	9,292	79.6
Grandparent	76	47.2	278	22.0	74	32.3	1,776	15.2
Sibling	35		36	2.9	13	5.7	79	0.7
Other relative	39		87	6.9	41	17.9	418	3.6
Not related	11	6.8	26	2.1	7	3.1	105	0.9
N	190		1,263		229		11,690	

<sup>\* 29</sup> double orphans who were erroneously recorded as living with a biological parent have been excluded from this breakdown.

Table 2: The influence of parental loss on primary school completion in children aged 13-15 years

	Boys			Girls			Boys and girls		
Factor	OR	Ī	)	OR	l	p	OR	р	
Parental loss									
Time since father died (years)		1.07	0.058		1.10	0.013		1.09	0.001
Time since mother died (years)		0.88	0.044		0.92	0.191		0.90	0.013
Socio-economic location									
Town		0.74	0.203		1.00	0.997		0.86	0.357
Estate		0.62	0.004		0.52	< 0.001		0.57	< 0.001
Roadside trading centre		0.47	< 0.001		0.49	< 0.001		0.48	<0.001
Subsistence farming area		1			1			1	
Socio-economic status of household									
Radio		1.30	0.049		1.47	0.008		1.37	0.001
Finished floor		1.67	0.002		2.07	<0.001		1.87	<0.001
Household head characteristics									
Female		1.02	0.876		1.52	0.009		1.23	0.058
School education		1.70	0.001		1.63	0.004		1.68	<0.001
Relationship to head of household									
Parent		1.73	0.010		2.07	0.001		1.89	< 0.001
Grandparent		1.89	0.028		1.98	0.020		1.94	0.001
Other relative or not related		1			1			1	
Child demographics									
Age		2.89	< 0.001		3.27	< 0.001		3.07	< 0.001
Sex (female)		-			-			1.50	<0.001
N			1,204			1,198			2,402

OR: adjusted odds ratio calculated using logistic regression analysis to take account of confounding factors

The parents of children whose fathers/mothers are alive at the interview date are treated as having died zero years in the past