

# *Assessing the Impact of Interventions to Meet the Needs of Orphans and Vulnerable Children in KwaZulu-Natal, South Africa:*

## Study Overview and Baseline Sample Demographics

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### Introduction

The HIV and AIDS epidemic has had a profound impact on children and families, particularly in sub-Saharan Africa, home to more than two-thirds of the world's people living with HIV and/or AIDS [1]. South Africa is one of the hardest hit countries in this region, with approximately 18% of adults aged 15-49 years estimated to be HIV positive [1]. This staggeringly high prevalence rate also affects millions of children. In South Africa alone, by 2006 an estimated 3.8 million children were living without a biological mother, father or both parents [2] and nearly two million have been orphaned due to AIDS [1]. Many more children contend with parental illness. All of these orphaned and vulnerable children (OVC) are at disproportionate risk for illness, malnutrition, emotional distress, stigmatization, maltreatment, and diminished prospects for their future [3].

Despite recognition of the magnitude and negative consequences of this problem, there is little empirical evidence on "what works" to improve the well being of OVC [4]. Moreover, there is enormous variation in how the most common interventions are implemented (e.g., home visits, support groups, after-school programs), and little is known about which particular features (e.g., level of training, frequency) are necessary for effectiveness. The study described here will begin developing this critical knowledge, with the ultimate goal of enhancing the quality of programming for highly vulnerable children in South Africa and elsewhere. It involves a longitudinal assessment of several program models with emphasis on common intervention strategies for providing support to OVC in South Africa. This report provides

an overview of the study methods and characteristics of the baseline sample.

The study detailed here is part of the Enhancing Strategic Information project (ESI), funded by the United States Agency for International Development (USAID) in Southern Africa. ESI supports the availability of high quality health systems information that contributes to sustainable policy planning and programmatic decision-making. Tulane University School of Public Health and Tropical Medicine works in partnership with the prime ESI funding recipient, John Snow Incorporated, to produce knowledge that will improve existing practices and guide future investment in OVC programming.

### Study Aims and Overview

The study has two principal objectives:

- 1) To help identify priority and unmet needs of vulnerable children and their families/caregivers; and
- 2) To understand which common interventions (and their specific features) are benefiting vulnerable children and families/caregivers.

**The evaluation component of this study concentrates on exploring the impact of three key interventions:**

- \* Home visits
- \* After school child centers
- \* Support groups for children



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Objectives are achieved by collecting and analyzing information on children and their caregivers longitudinally at two strategic time points: baseline (the time of enrollment into the programs under study) and at follow-up (after two years of program involvement). OVC service providers engaged in this study include three non-governmental organizations and their community-based partners (see Participating Programs box). The baseline survey, administered to participants between April and June 2010 at selected sites, provides a wealth of information on the key service needs (including medical, psychological, nutritional, education and social) of these OVC and their caregivers. This information can be applied immediately to support effective programming, enabling organizations to concentrate their resources towards services that address areas of greatest need.

The follow-up survey will be administered in early 2012, and analysis will examine how children's exposure to specific interventions may have affected their wellbeing according to a variety of measures. Impact of any exposure to an intervention as well as differences in outcomes that may emerge from varying intensity, frequency and quality of exposure will be considered. Additionally, focus groups conducted with beneficiaries will help inform interpretations of the survey data, reveal potential pathways between intervention components and impact, and highlight the strengths and weaknesses of various approaches. Information gathered at each survey round will ultimately be used for program improvement, the development of effective scale-up plans, and resource allocation decisions.

## **PARTICIPATING PROGRAMS**

**National Association of Child Care Workers (NACCW):** In close collaboration with local implementing partners, NACCW promotes the Isibindi model of care featuring home visits and support from highly trained Child and Youth Care Workers, all of whom are paid employees. At some sites, the program also provides structured recreational and educational activities for children at Safe Parks (also known as After School Centers). A principal focus of the assessment is to compare this high-intensity approach to home visiting with less intensive models.

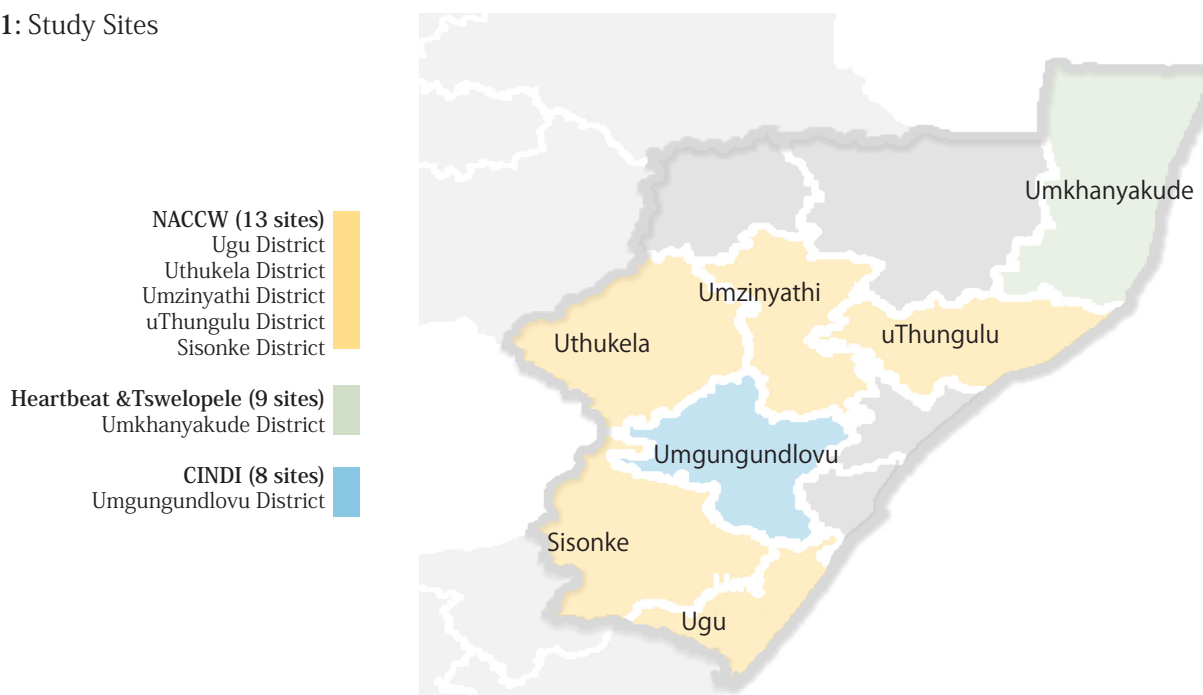
**Heartbeat International:** Heartbeat likewise provides home visiting for OVC households, though visitors receive less training and compensation than those employed through Isibindi. Heartbeat also runs support groups for children and provides structured recreational and educational activities for them in After School Centers. The study will evaluate the impact of these services as offered by Heartbeat directly as well as through the Tswelopele initiative. Tswelopele is a capacity-building program designed to enable community-based organizations (CBOs) to replicate the Heartbeat model of service delivery through the provision of mentoring, training and limited material support.

**Children in Distress Network (CINDI):** CINDI provides training and networking opportunities for CBO partners but does not promote a standardized model of care, and its partners' programs vary in terms of the type and scope of services offered. In general, the intensity of home visiting offered by the participating CINDI partners is expected to be relatively low compared with the other programs in the study, and these beneficiaries may also have limited and/or less consistent access to the additional interventions of interest. These differences in focal services and intensity of approach will allow for meaningful comparison across the programs.

## **Study Sites**

The study is being conducted in KwaZulu-Natal (KZN) province, located along the Indian Ocean in the southeastern part of the country. Data from antenatal surveillance suggest that nearly 40% of reproductive-age women accessing public prenatal services in KZN are HIV-positive, the highest rate of any province [5]. The province's more than ten million residents constitute 21% of the total population of South Africa and represent nearly one third of the country's HIV burden [6]. Approximately 20% of children in KZN were orphans in 2005 [7]. Study sites are located in 7 of the 11 districts in KZN. Figure 2 depicts the study areas for each program. This study was implemented at a total of 32 local sites (i.e., service delivery areas for implementing partners, often but not always centered near an office or other facility) within these 7 districts.

**Figure 1: Study Sites**



## Study Population

All three participating programs focus on serving orphans and other vulnerable children; eligibility criteria are similar, though not identical, across partners (see Table 1). Children were included in the baseline survey if they: 1) enrolled in a study program between October, 2009 and February, 2010; 2) had not received substantial services from the implementing partner prior to en-

rollment; and 3) were age 10-17 years old at the time of the survey. A maximum of two children per caregiver were considered eligible for study enrollment; in cases where three or more children met the baseline age and program enrollment criteria, two were randomly selected to participate.

**Table 1: Program Eligibility**

NACCW	HEARTBEAT/TSWELOPELE	CINDI
Guardian or child is HIV positive	Primary guardian is terminally ill	Primary guardian is terminally ill
Child-headed household	Child-headed household	Child-headed household
Orphaned due to HIV/AIDS	Live in relative headed households	Orphaned

## Survey Instruments

Interviews take place at the residence of selected respondents and are delivered in the respondent's preferred language (isiZulu or isiXhosa). Survey questions focus mainly on the child's situation and experiences, but also cover information relevant to the caregiver and household that may mediate child-level outcomes. Interviews further include questions concerning respondents' general program exposure and experience with specific interventions. The study attempts to measure:

- **demographics** that may serve as important explanatory and control variables (e.g., OVC status, including parental survival and illness);
- **outcomes** important for child wellbeing (e.g., mental health, maltreatment, access to grants); and
- **exposure** to key interventions via program participation.

Four different survey instruments are used in each household, including:

- 1) The **Household Questionnaire**, completed by one adult on behalf of the household. It provides background information about the socioeconomic status of the household.
- 2) The **Caregiver Questionnaire**, completed by the child's primary caregiver and providing information on the caregiver's own physical and mental health and household needs.
- 3) The **Caregiver Regarding the Child Questionnaire**, which asks the primary caregiver about each child participant. It covers topics that may be emotionally disturbing for children themselves to answer, such as when the child last had contact with his/her biological mother/father. It also includes questions concerning the child's need for services.
- 4) The **Child Questionnaire**, completed by children age 10 to 17, with questions pertaining to the child's home and school situation, feelings, and experiences with caregivers and program providers.

## Ethical Review and Procedures

Prior to baseline data collection, the research protocol and survey instruments underwent ethical review and were approved for implementation by the Tulane University Human Research Protection Program in the United States and the Human Science Research Council in South Africa. Periodic reviews will continue to ensure that ethical standards are being met. Additionally, the South African research organization selected to assist with implementing fieldwork activities obtains local approval from community and tribal authorities prior to initiating data collection at each site. Fieldwork is conducted by an experienced interview team whose members receive specialized training on ethical standards for research activities and on proper interviewing techniques, including those specific to children.

Interviews and consent/assent processes are completed in private using scripts and procedures appropriate to

the literacy level of potential participants. Informed consent is obtained from every interviewee: adults consent to their own participation and are asked to provide consent for the children in their care. Child participants also provide assent separately before taking part in an interview.

## Sampling Procedures and Response Rates

Baseline surveys were conducted from April - June 2010. The study programs provided the research team with information from their beneficiary records at the selected sites, including age and approximate date of registration. This information was used to construct a sample of eligible households with newly enrolled children age 10-17. In each household, up to three visits were made to locate and interview children and caregivers. Of the 1622 households eligible for inclusion, 81% agreed to participate, 11% could not be located, 7% were not home after three attempts, and 1% refused to participate. A total of 1856 children and 1424 caregivers were interviewed. Full survey information—completion of all four surveys—was collected from 1782 children and 1305 caregivers in 1296 households; baseline analyses were conducted on this final sample.

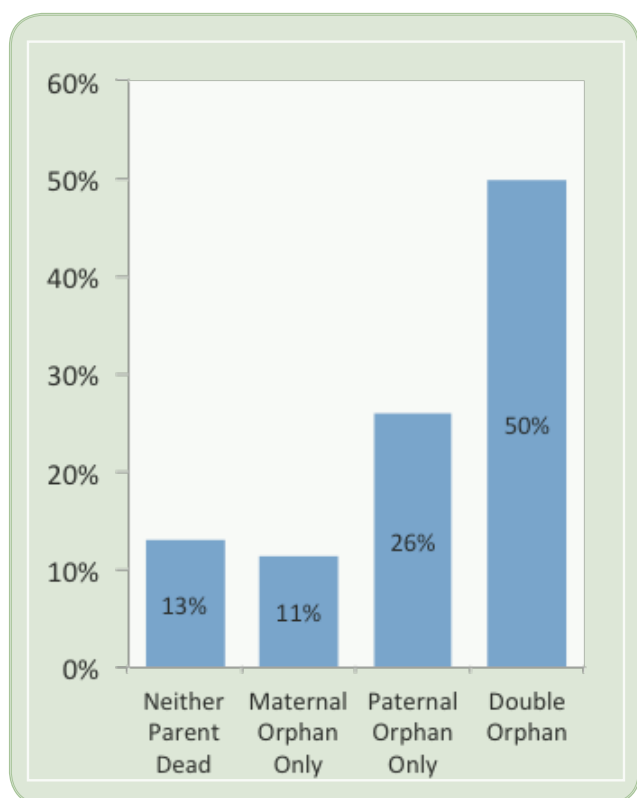
## Sample Demographics

Important demographic characteristics of the children, caregivers and households are summarized in Table 2. Overall, 37% of the children included in the study were single orphans (i.e., having lost one parent), and 50% were double orphans (i.e., having lost both parents; see Figure 2). Children classified as orphans in this study included those with confirmed death of a parent and those whose parental survival is unknown but who have not had contact with the parent in two or more years. For 19% of children in the sample, paternal survival was unknown but the father had been absent for at least two years; for 3% of the sample, the same was true for the mother. These “essential orphans” account for less than 1% of maternal orphans, 4% of paternal orphans, and 17% of double orphans.

Irrespective of orphan status, almost all children (97% of the sample) were cared for by immediate family - typically by a grandparent (40%), surviving mother (25%) or aunt/uncle (20%; Figure 3). Caregivers were predominantly female (93%), and nearly one-third were elderly; very few were young adults or children themselves. An estimated 37% of primary caregivers reported suffering from a chronic illness for at least 3 months in the past year.

Household demographics at baseline reflect a highly vulnerable population: 84% of households were found to be either moderately or severely food insecure using the Household Food Insecurity Access Scale [8] and 80% had monthly incomes under 1000 Rand (approximately US\$140); no more than 2% of the sample's monthly income exceeded 2500 Rand. For the baseline assessment, households were divided into wealth quintiles (derived from an index based on household asset ownership and living conditions). Nearly half of the population fell within the lowest two quintiles, with less than 7 of 13 listed assets or infrastructure features, and were classified as living in extreme poverty. On average, study households included 4 children under the age of eighteen, and most study participants resided in rural areas.

**Figure 2. Orphan Status**

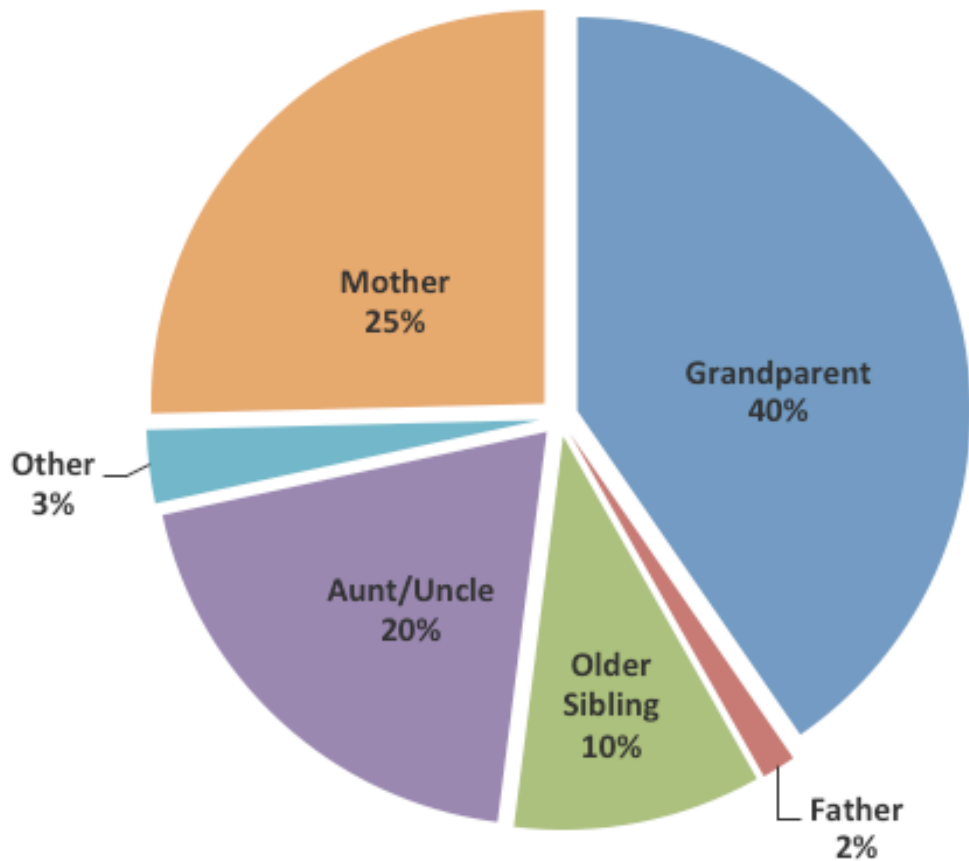


**Table 2. Sample Characteristics**

Children (N=1782)	%
Female	53
Mean age in years	13.6
Lives with a parent	33
In school	98
Caregivers (N = 1305)	%
Female	93
Age in years	
<18	<1
18-24	8
25-59	60
60+	32
Married or staying together	20
Widowed	29
Chronically ill	37
No education	32
Household (N=1296)	%
Moderately/severely food insecure	84
Monthly household income < 1000	80
Wealth quintiles	
Low	28
Second	21
Middle	17
Fourth	18
High	16
Ill household member	44
Type of neighborhood	
Rural	75
Commercial farm	8
Informal settlement	9
Semi-urban	9
Number of household members	Mean = 7.5
Number of children in household	Mean = 4.3

Table 2 presents sample characteristics at baseline across all programs, but bivariate analyses revealed significant (i.e.,  $p < .05$ ) variability between the partners. Specifically, children at NACCW were more likely to be cared for by elderly grandparents (54% vs. 40% overall). CINDI's caregivers were less likely than those affiliated with other programs to have had no education (18% vs. 32% overall) and more likely to be in the higher wealth quintiles, though income remained low. The higher average wealth ranking may result from the fact that CINDI's beneficiaries were more often located in semi-urban areas (24% vs. 9%) and informal settlements (14% vs. 9%), where they have access to better infrastructure (e.g., electricity) versus residents of rural areas. Differences in beneficiaries' sociodemographic characteristics between programs will be accounted for in the longitudinal evaluation, by statistical adjustment of confounders and/or examining individual change over time.





**Figure 3.** Caregiver Relationship to Child

### Baseline Needs Assessment

Baseline analyses have been conducted to offer in-depth information concerning the risks and strengths of the OVC program population; findings are presented in topic-specific program briefs. In each brief, descriptive analyses assess the extent of problems, unmet need and resiliency among beneficiaries prior to intervention exposure. Multivariate regression analyses identify the underlying factors associated with the wellbeing of children enrolling in these OVC programs; these factors include the household, caregiver and child level characteristics described in this report. Briefs conclude with related recommendations developed in consultation with stakeholders from the study programs.

### Limitations

The main limitation for the baseline assessment is the possibility that program exposure may predate baseline data collection. While every effort was made to recruit OVC very soon after program enrollment, it is possible that a small number of OVC and their caregivers received program services between enrollment and the baseline survey; these services may then influence reported welfare and areas of need. Further potential limitations relate to the longitudinal evaluation, including loss to follow-up, non-random assignment to intervention groups, and variation in intervention exposure within programs. While the study incorporates procedures designed to minimize these potential limitations (e.g., statistical techniques and careful tracking of participants), some degree of bias is anticipated.

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