Orphans and Vulnerable Children in Kenya: Results From a Nationally Representative Population-Based Survey

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Background: In Kenya, it is estimated that there are approximately 3.6 million children aged <18 years who have been orphaned or who are vulnerable. We examined the data from the second Kenya AIDS Indicator Survey (KAIS 2012) to determine the number and profile of orphans and vulnerable children (OVC) in Kenya who were aged <18 years.

Methods: KAIS 2012 was a nationally representative, population-based household survey. We analyzed the data for all the children from birth to age 17 years who resided in an eligible household so as to determine whether their parents were alive or had been very ill to define their OVC status.

Results: We estimated that there were 2.6 million OVC in Kenya in 2012, of whom 1.8 million were orphans and 750,000 were vulnerable. Among orphans, 15% were double orphans. Over one-third of all the OVC were aged between 10 and 14 years. Households with ≥1 OVC (12% of all households) were usually in the lowest 2 wealth quintiles, and 22% of OVC households had experienced moderate or severe hunger. Receipt of OVC support services was low for medical (3.7%), psychological (4.1%), social (1.3%), and material support (6.2%); educational support was slightly more common (11.5%). Orphanhood among children aged <15 years increased from 1993 to 2003 ($P < 0.01$) but declined from 2003 to 2012 ($P < 0.01$).

Conclusions: The 2.6 million OVC constitute a significant proportion of Kenya's population aged <18 years. Special attention should be paid to OVC to prevent further vulnerability and ensure their well-being and development as they transition into adulthood.

Key Words: orphans, vulnerable children, HIV, Kenya

INTRODUCTION

Worldwide, 16.6 million children <18 years of age have lost 1 or both their parents to HIV; 90% of these orphans live in sub-Saharan Africa.[1] Given that orphanhood has been associated with poorer health outcomes, educational attainment, and economic disadvantage, this population is of key concern.[2] Moreover, there is a larger group of children and adolescents who have increased vulnerability due to severe illness in the family or overall household poverty, affecting their overall well-being and development.[2]

Prior estimates in Kenya have found that approximately 3.6 million[3] children are orphaned or are vulnerable, and represent almost one-fifth of the total population aged <18 years.[4] It has been estimated that 1.1 million, or 44%, of these children have been orphaned due to HIV,[5] having lost either 1 or both of their parents to the disease. With an HIV prevalence of 5.6% among adults[6] and antiretroviral therapy (ART) being taken by 61% of people who are clinically eligible,[7] the number of orphans and vulnerable children (OVC) will likely continue to increase well into the future particularly as AIDS remains the leading cause of death of adults in Kenya.[8]

Previous studies conducted in Kenya have examined the association between OVC status and immunizations,[9,10] nutrition,[10–13] and mental health[14,15] outcomes. Results obtained

have been mixed, with some studies showing an association between OVC status and poor immunization and nutritional status.[10,13,14] Vulnerable children with HIV-infected parents were significantly less likely to attend school compared with children of HIV-uninfected parents.[10] Few studies have examined the relationship between OVC status and HIV risk behavior, but 1 study conducted among persons aged 10–18 years in Nyanza, the region with the highest HIV prevalence in Kenya, found no significant differences between orphans and non-orphans with regard to the rates of occurrence of sexual activity or sex-related self-efficacy.[15]

The Government of Kenya views OVC as a priority population in the national response to the HIV epidemic. The Kenya National AIDS Strategic Plan III for 2009–2013 outlines strategies for improving the welfare of OVC through educational, economic, and social support, and 8.4% of the plan's total budget was allocated to OVC programming.[16] Social safety net and protection programs targeting OVC households have also been established throughout the country, and cash transfers have been used to promote school attendance and health service use by OVC.[17] Nevertheless, despite this recognition of the need to provide age-appropriate services and protection to the OVC population, much is still unknown about its size, its characteristics, the proportion receiving support services, and what its social and developmental outcomes are. Even less understood is the proportion of OVC due to HIV/AIDS and how this group's profile may differ from that of children who are vulnerable due to other reasons.

The second Kenya AIDS Indicator Survey (KAIS 2012) provides a unique opportunity to describe the OVC population in Kenya and to establish national population estimates of OVC using a nationally representative survey. The main objective of this analysis is to present the profile of OVC with regard to their demographic characteristics, use of support services, and their population size.

METHODS

Study Design

KAIS 2012 was a nationally representative population-based household survey conducted between October 2012 and February 2013. The survey used a 2-stage cluster sampling design to derive HIV prevalence estimates for the adult and adolescent (aged 15–64 years) and child (aged 18 months–14 years) populations. Because of regional security concerns, the North Eastern region on the Somali border was not surveyed. Full details of the study design and methodology are described elsewhere.[18]

Study Population

The study population for this analysis comprised all children from birth to age 17 years who resided in an eligible household. Only children who resided in a household where a competent household head or other designated respondent was found were included in the survey. Eligible household heads were adults aged 18–64 years or minors aged 15–17

years who had been married, had children, or were pregnant. Given the sensitivity of conducting research among orphans and to ensure the protection of this vulnerable population, households that were headed by orphans aged <15 years were not eligible to participate in the survey.

We defined orphans as children who were <18 years of age who had lost 1 or both their parents, as per the national definition,[19] and we further classified orphans into double orphans (both parents dead) or single orphans (1 parent dead). Maternal and paternal orphans were used to describe whether the child had lost the mother or the father, respectively. We defined a vulnerable child as one whose parent(s), living in or outside of the child's household, or any adult (aged ≥18 years), living in the child's same household, had been chronically ill. Chronic illness was defined as the condition of being very ill for at least 3 months in the past 1 year before the survey.

Measures

Data were collected using a household-level questionnaire administered to the head of the household, or if the household head was not present, it was administered to another designated respected household member. The household questionnaire consisted of 4 components: (1) sociodemographic characteristics of each household member, (2) household characteristics and possessions, (3) household availability of and access to food, and (4) support received for OVC residing in that household. The sociodemographic section included questions about the living and health status of the parents for all children from birth to 17 years of age, and about the health status of all household members aged ≥18 years. The household wealth index was calculated using the Demographic and Health Survey wealth index based on the household characteristics and possessions.[20] The Household Hunger Scale was used to determine the level of hunger within the household.[21] The OVC support section asked households with at least 1 OVC whether the household received any medical, psychological, material, social, or educational support for that child.

Statistical Analyses

All analyses were performed in SAS version 9.3 (SAS Institute Inc, Cary, NC). We used the SAS sample survey procedures to account for stratification, clustering, and weighting due to the survey's 2-stage cluster sampling design. We conducted descriptive analyses to examine the demographic and socioeconomic characteristics of the OVC households across all OVC categories. The HIV status of the parent(s) was based on the report provided by the head of the household. All analyses were weighted to account for sampling probability and nonresponse at the household level. The national population estimates for OVC, orphans, and vulnerable children were determined by applying the non-normalized survey household weights, based on the 2012 population projections in the 2009 Kenyan Population and Household Census, to derive the population-level frequencies.[4]

We also compared the prevalence of orphanhood due to all causes in Kenya from 1993 to 2012 among children <15

years of age. We used data from the Kenya Demographic and Health Surveys (KDHS) for 1993, 1998, and 2003 and from KAIS for 2007 and 2012. KDHS 2008/2009 was not included as questions on the living status of the child's parents were not included. Because KDHS only asked about parents' status for children aged ≤14 years, an orphan was defined as any child aged ≤14 years who had 1 or both parents not alive for this comparison. The z-test statistic was used to test for differences between estimates by the year of survey, and the difference was considered to be statistically significant if P was <0.05.

Ethical Considerations

Ethical approval was obtained from the Kenya Medical Research Institute's Ethical Review Committee, the University of California, San Francisco's Committee on Human Research, and the US Center for Disease Control and Prevention's Institutional Review Board. Informed consent was obtained from the head of the household for the household interview.

RESULTS

A total of 9189 households were considered to be eligible for participation in KAIS 2012, and of these, 87% (n = 8035) consented to participate in the household interview. Based on information provided in the household interview, there were a total of 16,126 children aged <18 years living in these households, where 14.4% [95% confidence interval (CI): 13.1 to 15.8] (n = 2362) of these children met our definition of OVC. OVC households, or households with at least 1 OVC, comprised 11.7% (95% CI: 10.8% to 12.6%) of all the households interviewed.

Characteristics of OVC Households

Among the 1104 OVC households, more than half fell in the lowest 2 quintiles for household wealth, and approximately one-fifth of OVC households had experienced moderate or severe hunger (Table 1). The average size of an OVC household was 5.4 members, compared with 3.9 members for non-OVC households (P < 0.0001). Thirty-nine households had both orphaned and vulnerable children, and approximately half (52.3%, 95% CI: 49 to 55.6) of all the OVC households had ≥2 OVC (data not shown).

Characteristics of OVC

Among all OVC, 71.1% (95% CI: 67.1 to 75.1) were orphaned (single and double), and 28.9% (95% CI: 24.9 to 32.9) were found to be vulnerable. The estimated median age of OVC was 10.3 years [interquartile range (IQR), 9.9–10.7] compared with 6.7 years (IQR, 6.5–6.9) for non-OVC, whereas 37.1% (95% CI: 35.0 to 39.1) of all OVC were aged between 10 and 14 years (Table 1). Similar to the non-OVC, three-fourths of the OVC lived in rural areas, and approximately half of all the OVC resided in the Nyanza (27.4%, 95% CI: 22.5 to 32.4) and Rift Valley (26.0%,

95% CI: 21.1 to 30.7) regions. Over 90% (93.8%, 95% CI: 91.3 to 96.4) of school-aged OVC (aged 5–17 years) had ever attended school. Among all OVC, 8.3% (95% CI: 5.6 to 11.1) had parents who had (if dead) or currently have (if sick) HIV infection based on the report provided by the head of the household (Fig. 1).

Characteristics of Orphans

Among the orphans, 15.1% (95% CI: 11.9 to 18.3) had lost both their parents. Double orphans tended to be the oldest across all the OVC subgroups, with an estimated median age of 12.2 years (IQR, 11.4–13.0) (Table 1), and almost half (46.7%, 95% CI: 39.1 to 54.3) of all double orphans were aged between 10 and 14 years (Table 1). Forty-two percent (41.5%, 95% CI: 30.4 to 52.5) of these double orphans lived in the Nyanza region. Ninety-six percent (96.3%, 95% CI: 93.1 to 99.6) of school-aged double orphans had ever attended school. More than one-third of the double orphans (34.5%, 95% CI: 23.1 to 46.0) had at least 1 parent who was infected with HIV (Fig. 1).

Single orphans represented 84.9% (95% CI: 81.7 to 88.1) of all the orphans. Similar to the double orphans, most single orphans were aged between 10 and 14 years, and the estimated median age of the single orphans was 11.0 years (IQR, 10.5–11.5) (Table 1). The majority resided in the Nyanza (28.2%, 95% CI: 21.7 to 34.7) and Rift Valley (27.9%, 95% CI: 21.3 to 34.4) regions. Overall, 93.9% (95% CI: 91.4 to 96.3) of the school-aged single orphans had ever attended school. Maternal orphans comprised 17.3% (95% CI: 13.9 to 20.7) of all single orphans, and paternal orphans were 82.7% (95% CI: 79.3 to 86.1) (data not shown). Among single orphans, 5.9% (95% CI: 2.4 to 9.4) reported that the parent who died had HIV infection (Fig. 1).

Characteristics of Vulnerable Children

Vulnerable children were younger than were double and single orphans but were still older than non-OVC children, and their estimated median age was 7.9 years (IQR, 7.0–8.8) (Table 1). More than two-thirds of all vulnerable children resided in rural areas, and the largest proportion of vulnerable children lived in the Rift Valley region (26.7%, 95% CI: 19.1 to 34.4). For vulnerable children of school-eligible age (5–17 years), 90.6% (95% CI: 83.5 to 97.7) had ever attended school. Among vulnerable children who had a sick parent, 5.5% (95% CI: 2.1 to 8.9) had a sick parent who had HIV infection (Fig. 1). These children with an HIV-infected sick parent comprised 3.7% (95% CI: 1.3 to 6) of all vulnerable children (data not shown).

Support Services for OVC

Additional information on receipt of OVC support services was provided for approximately two-thirds of all the OVC (n = 1520) by their heads of household. Of these children, very few OVC had received any medical (3.7%), psychological (4.1%), or material support (6.2%) in the past

TABLE 1. Sociodemographic Characteristics of Children Aged 0–17 Years, Kenya AIDS Indicator Survey 2012

	Non-OVC			OVC			Orphan (Any)		
	Unweighted, n*	Weighted %	95% CI	Unweighted, n*	Weighted %	95% CI	Unweighted, n*	Weighted %	95% CI
Total	13,764	—	—	2362†	—	—	1685	—	—
Age, yrs									
0–4	4411	31.8	30.8 to 32.9	360	15.2	13.5 to 16.8	175	10.2	8.4 to 12.0
5–9	4432	31.9	31.1 to 32.7	606	25.6	23.4 to 27.7	412	24.3	21.7 to 26.9
10–14	3493	25.6	24.8 to 26.5	873	37.1	35.0 to 39.1	676	40.6	38.0 to 43.2
15–17	1428	10.6	9.9 to 11.4	523	22.2	20.2 to 24.2	422	24.9	22.2 to 27.6
Median age, yrs		6.7	6.5 to 6.9		10.3	9.9 to 10.7		11.2	10.7 to 11.6
Sex									
Male	6710	49.1	48.1 to 50.0	1220	51.1	48.9 to 53.3	880	51.3	48.7 to 53.9
Female	7054	50.9	50.0 to 51.9	1142	48.9	46.7 to 51.1	805	48.7	46.1 to 51.3
Region									
Nairobi	1078	6.8	5.9 to 7.7	98	3.8	2.5 to 5.1	80	4.4	2.7 to 6.1
Central	1167	9.3	8.1 to 10.5	197	8.8	6.6 to 11.1	119	7.4	4.9 to 10.0
Coast	1653	8.6	7.0 to 10.3	274	8.4	6.1 to 10.8	162	7.1	4.9 to 9.3
Eastern	3141	15.9	13.7 to 18.1	487	11.9	9.3 to 14.4	385	12.1	9.7 to 14.6
Nyanza	1845	15.1	13.3 to 16.9	558	27.4	22.5 to 32.4	433	30.2	24.2 to 36.2
Rift Valley	2915	31.0	27.7 to 34.2	418	26.0	21.2 to 30.7	281	25.6	19.7 to 31.6
Western	1965	13.3	12.0 to 14.6	330	13.6	10.0 to 17.3	225	13.0	9.7 to 16.3
Residence									
Rural	9929	72.9	70.6 to 75.1	1793	76.5	72.4 to 80.5	1314	78.6	74.2 to 82.9
Urban	3835	27.1	24.9 to 29.4	569	23.5	19.5 to 27.6	371	21.4	17.1 to 25.8
Ever attended school‡									
Yes	—	—	—	1214	93.8	91.3 to 96.4	1062	92.3	91.9 to 96.6
No	—	—	—	108	6.2	3.6 to 8.7	91	5.8	3.4 to 8.1
Household wealth index									
Poorest	1303	17.6	15.1 to 20.1	304	25.8	21.9 to 29.8	244	27.5	23.1 to 31.8
Second	1312	18.7	17.1 to 20.4	295	28.8	25.5 to 32.2	223	29.1	25.4 to 32.8
Middle	1386	20.2	18.3 to 22.2	221	20.0	17.1 to 23.0	165	19.6	16.2 to 23.0
Fourth	1434	21.0	18.9 to 23.2	173	14.6	12.0 to 17.2	118	13.2	10.4 to 16.0
Richest	1496	22.4	19.7 to 25.1	111	10.7	8.0 to 13.4	87	10.7	7.8 to 13.6
Household hunger									
Little or no hunger	5801	86.2	84.5 to 88.0	821	78.3	75.2 to 81.4	630	79.9	76.8 to 83.1
Moderate hunger	929	12.1	10.7 to 13.6	233	19.6	16.7 to 22.6	172	18.4	15.5 to 21.3
Severe hunger	124	1.6	0.9 to 2.4	29	2.1	1.0 to 3.1	19	1.7	0.6 to 2.8

	Orphan Double			Orphan Single			Vulnerable Child		
	Unweighted, n*	Weighted %	95% CI	Unweighted, n*	Weighted %	95% CI	Unweighted, n*	Weighted %	95% CI
Total	226	—	—	1459	—	—	677	—	—
Age, yrs									
0–4	11	4.1	1.6 to 6.7	164	11.3	9.3 to 13.3	185	27.4	23.4 to 31.4
5–9	45	20.7	13.8 to 27.7	367	24.9	22.3 to 27.5	194	28.7	25.2 to 32.2
10–14	104	46.7	39.1 to 54.3	572	39.5	37.1 to 42.0	197	28.4	24.9 to 31.8
15–17	66	28.4	21.0 to 35.8	356	24.3	21.7 to 26.9	101	15.6	12.8 to 18.3
Median age, yrs		12.2	11.4 to 13.0		11.0	10.5 to 11.5		7.9	7.0 to 8.8
Sex									
Male	122	50.7	43.3 to 58.2	758	51.4	48.4 to 54.4	340	50.6	47.3 to 54.0
Female	104	49.3	41.8 to 56.7	701	48.6	45.6 to 51.6	337	49.4	46.0 to 52.7
Region									
Nairobi	10	3.6	1.4 to 5.8	70	4.6	2.7 to 6.4	18	2.3	0.9 to 3.7

TABLE 1. (*Continued*) Sociodemographic Characteristics of Children Aged 0–17 Years, Kenya AIDS Indicator Survey 2012

	Orphan Double			Orphan Single			Vulnerable Child		
	Unweighted, n*	Weighted %	95% CI	Unweighted, n*	Weighted %	95% CI	Unweighted, n*	Weighted %	95% CI
Central	14	7.0	2.6 to 11.4	105	7.5	4.8 to 10.2	78	12.3	8.0 to 16.6
Coast	14	4.8	1.3 to 8.4	148	7.5	5.0 to 10.1	112	11.7	6.3 to 17.1
Eastern	43	16.1	8.5 to 23.8	342	11.4	9.0 to 13.9	102	11.2	5.5 to 16.8
Nyanza	94	41.5	30.4 to 52.5	339	28.2	21.7 to 34.7	125	20.6	14.5 to 26.8
Rift Valley	21	13.2	5.5 to 20.9	260	27.9	21.3 to 34.4	137	26.7	19.1 to 34.4
Western	30	13.8	4.9 to 22.7	195	12.9	9.8 to 16.0	105	15.1	8.5 to 21.7
Residence									
Rural	158	69.3	58.0 to 80.7	1156	80.3	76.1 to 84.4	479	71.2	64.6 to 77.8
Urban	68	30.7	19.3 to 42.0	303	19.7	15.6 to 23.9	198	28.8	22.2 to 35.4
Ever attended school‡									
Yes	167	96.3	93.1 to 99.6	895	93.9	91.4 to 96.3	152	90.6	83.5 to 97.7
No	7	3.7	0.5 to 7.0	84	6.1	3.7 to 8.6	17	9.4	2.3 to 16.5
Household wealth index									
Poorest	35	23.7	15.6 to 31.8	209	28.3	23.4 to 33.3	60	20.8	15.3 to 26.2
Second	35	27.7	19.3 to 36.1	188	29.4	25.4 to 33.4	72	28.1	22.1 to 34.1
Middle	29	22.0	14.6 to 29.4	136	19.1	15.6 to 22.6	56	21.4	16.1 to 26.6
Fourth	17	11.2	5.7 to 16.7	101	13.6	10.6 to 16.6	55	19.0	14.0 to 24.1
Richest	20	15.4	8.3 to 22.5	67	9.6	6.7 to 12.5	24	10.7	5.9 to 15.5
Household hunger									
Little or no hunger	108	82.4	75.9 to 88.9	522	79.4	75.8 to 82.9	191	73.1	66.7 to 79.4
Moderate hunger	26	17.6	11.1 to 24.1	146	18.6	15.3 to 21.8	61	23.6	17.6 to 29.6
Severe hunger	0	—	—	19	2.1	0.7 to 3.4	10	3.3	0.7 to 6.0

*Unweighted frequency presented for each variable.

†Percentage of OVC among all children aged <18 years: 14.4% (95% CI: 13.1% to 15.8%).

‡The status "ever attended school" was not asked for non-OVC children aged 5–17 years in the household questionnaire.

12 months (Table 2). Although still low, school support was the most common type of support received for school-aged OVC aged 5–17 years, at 11.5%.

Population Size Estimates of OVC

Using our definition of OVC, we estimated that there were 2.6 million children aged <18 years who were orphaned or were vulnerable in 2012 (Table 3). Males accounted for 1.33 million and females accounted for 1.27 million OVC. Over 1.8 million (71.1%) of these children were orphans, of whom approximately 1.6 million were single orphans and 280,000 were double orphans. Vulnerable children accounted for 749,479 or 28.9%, of the OVC population. Across the 4 age groups, the 10 to 14 year age group had the greatest number of OVC, at 962,475. The regions with the largest populations of OVC were Nyanza (~713,000) and the Rift Valley (~674,000). We also estimated that approximately 217,000 OVC had a parent or parents infected with HIV (data not shown).

Orphanhood in Kenya From 1993 to 2012

Orphanhood among children aged ≤14 years in Kenya increased between 1993 (7.0%, 95% CI: 6.2 to 7.7) and 2003

(11.1%, 95% CI: 10.2 to 12.1) (*P* < 0.01) but declined between 2003 and 2012, to 8.8% (95% CI: 7.8 to 9.8) (*P* < 0.01) (Fig. 2). The proportion of orphans among all the children aged ≤14 years was the highest in 2003.

DISCUSSION

A substantial number of Kenyan children aged <18 years were OVC in 2012. Approximately 70% of the OVC were orphans, and the remaining 30% were vulnerable due to a chronically ill parent or adult in the household. Overall, 8% of the OVC had 1 or both parents who were reported to have been infected with HIV.

To our knowledge, this is the first population-based survey to estimate the size of the OVC population aged <18 years and to attribute the number of children who were orphaned or vulnerable due to HIV/AIDS. Our population estimate for orphans is within the range of the current national estimate of 3.6 million based on modeling.[3] Survey-based estimates have been found to be lower than model-based estimates in other contexts, possibly due to the underreporting of orphan status in surveys, overestimates of mortality in the model, or both.[22]

More than one-tenth of all the households in Kenya had at least 1 child who had been orphaned or was vulnerable due to the presence of a very sick adult or household member.
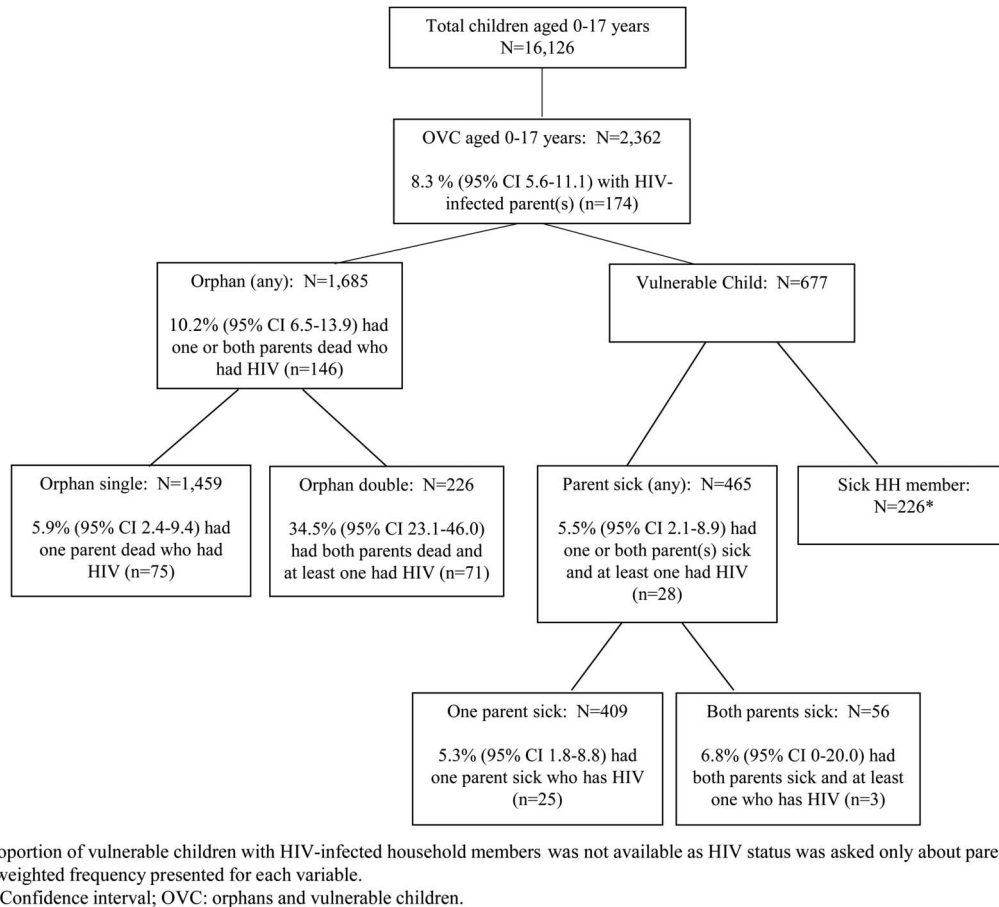
*Proportion of vulnerable children with HIV-infected household members was not available as HIV status was asked only about parents.
Unweighted frequency presented for each variable.
CI: Confidence interval; OVC: orphans and vulnerable children.

FIGURE 1. Proportion of OVC aged 0–17 years with HIV-infected parents, Kenya AIDS Indicator Survey 2012.

Most households that had at least 1 OVC were in the lowest wealth quintiles and were larger in size than non-OVC households. Approximately one-half of the OVC households were caring for multiple OVC. Half of all the OVC resided in the Nyanza and Rift Valley regions, an expected finding given that the Nyanza region has the highest HIV prevalence[6] and the Rift Valley region is the most populous among all the regions.[5] OVC were typically young adolescents, and orphans were older than vulnerable children.

Over the past 2 decades, orphanhood among children aged <15 years in Kenya increased from 1993 to 2003 but declined between 2003 and 2012. In 2003, one-tenth of all children aged <15 years were orphans, and this can be seen as a result of high HIV prevalence of 7%–10%[5] throughout the preceding decade. ART was widely introduced in the public sector in Kenya in 2003. It is unclear whether the introduction of ART and its scaleup since then is associated with the decreasing proportion of orphans, but the literature suggests that this relationship is plausible.[23] One modeling study of 10 sub-Saharan Africa countries concluded that universal ART access by adults would avert 717,382 orphans due to AIDS over a 10-year period in Kenya.[24]

The majority of OVC and their households were not receiving OVC-targeted support services. These services are intended to address the basic or core needs of the OVC population (food and nutrition; shelter and care; legal protection; health care; psychosocial support; and education), as outlined by the global framework for the protection, care, and support of OVC.[2] Our data suggest that the coverage of these services is limited and that there is a need to evaluate the design and delivery of these services to determine how best to reach these children.

Our study had several limitations. First, our OVC population size estimates did not include estimates from the North Eastern region; did not capture those orphans <15 years of age who were themselves heads of households; nor did they account for those OVC who did not live in households, such as those who were homeless and living on the street or living in institutions. Information on the number of household heads who were orphans and aged <15 years was not recorded by the survey, and to our knowledge, there are no estimates available for the number and proportion of OVC living in institutions or who are street children. Nevertheless, we surmise that the OVC population is greater than the estimates we derived. Because of the cross-sectional design of the survey, the sample excluded children who may have died shortly after their parent(s) died, potentially underestimating the true number of orphans in the population.

TABLE 2. Support Services for Orphans and Vulnerable Children Aged 0–17 Years, Kenya AIDS Indicator Survey 2012

	OVC			Orphan (Any)			Vulnerable Child		
	Unweighted, n*	Weighted %	95% CI	Unweighted, n*	Weighted %	95% CI	Unweighted, n*	Weighted %	95% CI
Medical support									
Yes	59	3.7	2.2 to 5.3	49	3.8	2.1 to 5.6	10	3.1	0.4 to 5.7
No	1459	96.3	94.7 to 97.8	1226	96.2	94.4 to 97.9	233	96.9	94.3 to 99.6
Emotional/ psychological support									
Yes	59	4.1	2.6 to 5.5	47	4.2	2.6 to 5.8	12	3.6	0.7 to 6.5
No	1460	95.9	94.5 to 97.4	1229	95.8	94.2 to 97.4	231	96.4	93.5 to 99.3
Material support									
Yes	98	6.2	4.4 to 8.0	91	6.9	4.8 to 8.9	7	2.8	0.4 to 5.1
No	1422	93.8	92.0 to 95.6	1186	93.1	91.1 to 95.2	236	97.2	94.9 to 99.6
Social support									
Yes	18	1.3	0.5 to 2.0	16	1.4	0.6 to 2.2	2	0.7	0 to 1.6
No	1501	98.7	98.0 to 99.5	1260	98.6	97.8 to 99.4	241	99.3	98.4 to 100
School support (aged 5–17 yrs)									
Yes	143	11.5	7.4 to 15.5	122	11.8	7.3 to 16.3	21	9.2	2.8 to 15.5
No	1176	88.5	84.5 to 92.6	1028	88.2	83.7 to 92.7	148	90.8	84.5 to 97.2

*Unweighted frequency presented for each variable.

Further, our definition of vulnerable children was limited to those children who had a very sick parent or lived with a very sick adult household member; it did not capture those who were vulnerable due to household poverty, and thereby underestimated the population size and the need for support services for vulnerable children. We were also not able to calculate the number of children who were vulnerable due to a household member having HIV, as HIV status was asked only for parents. The HIV status of parents was based on the report provided by the household head and may have been underreported given the stigma of HIV/AIDS. Due to interviewer misclassification of OVC and head of the household nonresponse, the findings on school attendance among OVC and OVC support received by the household represent approximately two-thirds of the total OVC study population, limiting the generalizability of our findings on the coverage of these OVC services. Because of the design of the questionnaire, we were not able to directly examine the receipt of cash transfers by OVC households, a key OVC program in Kenya, in addition to school retention and secondary school enrollment among OVC. Last, given that the primary intent of this analysis was to describe the OVC population, only descriptive analyses were conducted. Results therefore do not account for factors that may confound the magnitude of the estimates.

Despite these limitations being present, KAIS 2012 provides important population-based information on the profile of OVC, the population sizes of OVC groups, and trends in orphanhood in Kenya. Understanding where these

TABLE 3. Estimated Number of OVC Groups by Age and Region, Kenya AIDS Indicatory Survey 2012

|	OVC			Orphan (Any)			Vulnerable Child		
	Total	Lower	Upper	Total	Lower	Upper	Total	Lower	Upper
Overall	2,596,921	2,360,401	2,833,459	1,847,442	1,664,447	2,030,437	749,479	616,592	882,384
Age, yrs									
0–4	394,219	332,513	455,925	188,822	146,588	231,074	205,397	125,200	204,358
5–9	663,570	576,136	751,004	448,637	375,030	522,244	214,933	168,275	261,609
10–14	962,475	862,383	1,062,567	749,984	671,539	828,447	212,491	166,070	258,894
15–17	576,657	512,956	640,358	459,999	401,477	518,503	116,658	87,224	146,110
Region									
Nairobi	98,954	66,161	131,747	81,666	50,992	112,340	17,288	7116	27,442
Central	229,494	161,315	297,673	137,338	89,030	185,628	92,156	49,062	135,250
Coast	219,366	148,725	290,007	131,604	87,089	176,119	87,762	43,099	132,425
Eastern	307,948	231,590	384,306	224,234	172,958	269,343	83,714	33,838	133,590
Nyanza	712,823	551,531	874,097	558,098	417,841	698,355	154,725	102,407	272,144
Rift Valley	674,150	529,741	818,541	473,683	348,691	598,675	200,467	128,784	272,150
Western	354,186	242,567	465,823	240,819	173,719	307,919	113,367	53,923	172,828
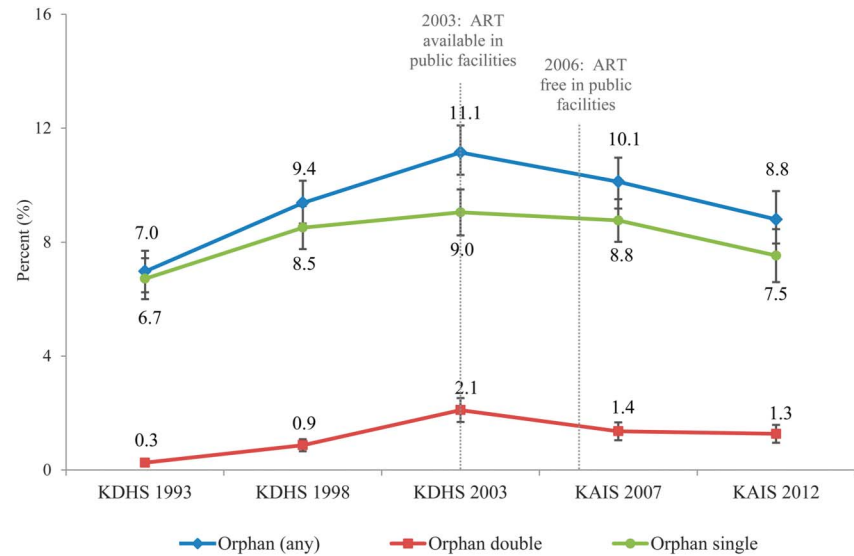
FIGURE 2. Proportion of orphans among children aged 0–14 years in Kenya, 1993–2012.

KDHS 1993 and 1998 estimates excluded North Eastern region, two districts in Rift Valley (Turkana and Samburu), and two districts in Eastern region (Isiolo and Marsabit). KAIS 2012 estimates excluded North Eastern region. These excluded areas were not included in the final survey samples.
ART: Antiretroviral therapy

children are most concentrated in the country and information pertaining to their ages, the proportion affected by HIV/AIDS, their household characteristics, and the extent of households with multiple OVC are essential for informing interventions that can effectively target the OVC population. Although the data are not reflective of the full scope of the OVC intervention programming in Kenya, the low coverage of basic OVC support received among those reporting suggests that reaching these children with services has been challenging. Additional interventions that are evidence based, targeted, and age appropriate will be required to advance the development and ensure the well-being of OVC. This will be especially critical as the population ages and transitions into adulthood. Closing the gap of the unmet need for support services must be a key priority for the government and other stakeholders to ensure the protection, care, and support of at least 2.6 million children.

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