

# Child Poverty and Disparities in Swaziland

Key Findings



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Child Poverty and Disparities in Swaziland. Key Findings  
July 2009

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# 1 BACKGROUND

On May 10, 2002, a Special Session of the United Nations General Assembly on Children culminated in a signing by some 180 nations of a landmark declaration 'A World Fit for Children.'<sup>1</sup> A World Fit for Children reaffirmed world leaders' obligations to promote and protect the rights of each child as stipulated in the Convention on the Rights of the Child (CRC) and laid out 10 principles and objectives for the next decade. One of the objectives included in the declaration was eradication of poverty among children within a single generation.

However, in Swaziland, six years after the adoption of A World Fit for Children, little is known about the level and extent of child poverty and disparities that exist in the country. This information is critical in evaluating national progress towards attaining the goals of the A World Fit for Children declaration, as well as the Millennium Development Goals (MDG) for 2015. Swaziland's Household Income and Expenditure Survey conducted in 2001 provides information on economic welfare,<sup>2</sup> but it offers little information on other dimensions of well-being that are relevant for children.<sup>3</sup>

A child poverty analysis will also provide vital information about the situation of children in a country being stricken by the most severe HIV and AIDS epidemic in the world. More than two decades into the epidemic, there is mounting evidence indicating dramatic deterioration of the situation for children in Swaziland. According to a preliminary report from the latest Swaziland Demographic and Health Survey (SDHS), the number of orphans – children who have lost one or both parents – stands at 97,000 (23 percent of all children).<sup>4</sup> There are also 130,000 children (31 percent of all children) who fit the definition of 'OVC' (orphans and vulnerable children), meaning that they have lost one or both parents, or have a very sick parent, or live in a household where an adult has been very sick or died in the past 12 months. It is projected that the number of OVC will increase dramatically to 200,000 in 2010 and to 250,000 in 2015. There are also signs that rising food insecurity may be adversely affecting the well-being of children in the country. According to the most recent vulnerability assessment the prevalence of stunting – a proxy for chronic malnutrition among children aged 6 to 59 months – increased in all four regions from an average of 30 percent in April 2006 to 52 percent in June 2009.<sup>5</sup>

It is against this backdrop that UNICEF conducted a national study on child poverty and disparities among children in Swaziland. The study is the first of its kind for the country and serves to fill in knowledge gaps on patterns of poverty among children and bring to light the current situation of children in Swaziland.

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<sup>1</sup>A/RES/S-27/2.

<sup>2</sup>The survey found that Swaziland is among the top 30 countries in the world in terms of income inequality, with a Gini coefficient of 0.51.

<sup>3</sup>Human Development Index (HDI), which is developed by UNDP, looks beyond income to a broader definition of well-being. With a HDI of 0.554, Swaziland ranks 73rd among 108 developing countries for which the index is available (UNDP<sup>4</sup>HDR 2007/2008).

<sup>5</sup>Central Statistical Office, the Government of the Kingdom of Swaziland, DHS Preliminary Report. Swaziland VAC, Vulnerability Assessment Preliminary Findings, 25 June, 2009.

# 2 CHILD POVERTY ASSESSMENT

## 2.1 Poverty Measurement

A great many definitions of poverty have been offered by scholars and practitioners worldwide, but few would disagree that the concept is related to households or individuals not possessing enough resources or abilities to meet their needs.<sup>6</sup> There are two broad approaches to measuring poverty: monetary and non-monetary measures. In the monetary approach, income or consumption data are used to measure a person's well-being and in the non-monetary approach non-income measures such as nutrition, health or education are used as measurements.

In both approaches an important concept is that of a poverty line, a threshold under which households / individuals are considered as being poor. In the monetary approach a threshold is determined by the level of expenditure on a basket of goods needed to maintain the minimum standard of living. In Swaziland, two different thresholds of poverty exist. One is the general poverty line, which is based on all goods (128.60 in 2001 Emalangeni, which is approximately 275 Emalangeni today). Another is the food poverty line, which is based on basic foodstuffs required for a minimum caloric intake (68.30 in 2001 Emalangeni).

While income poverty is by far the most commonly used measure of poverty, there are reasons that this monetary approach may not be adequate in measuring the well-being of children. First, compared to adults the well-being of children depends more on public goods and services such as education, healthcare and safe drinking water – which are often heavily subsidized by government – than it does on private goods and services. The situation is compounded by the fact that developing economies often have a large informal sector and a not so well functioning private market. Second, the use of household income/consumption as a measure of well-being ignores intra household dynamics within households and assumes that household income/consumption is equally distributed among household members. However, this claim is often disputed by observational data from many parts of the world that show gender inequalities in terms of access to education, health care, and other spheres of children's lives.

In a large research study commissioned by UNICEF, Gordon et al. (2003) proposes an alternative to the monetary approach, in which poverty is defined as “a condition characterized by severe deprivation of basic human needs: food, safe drinking water, sanitation facilities, health care, shelter, education and information. Often both approaches are complementary and some studies have used both approaches in the hope to capture a more comprehensive and holistic picture of the well-being of children.”<sup>7</sup> However, this study will focus exclusively on the non-monetary approach as there is a lack of recent data on household income and expenditure data in the country.

A non-monetary, deprivation-based approach to measuring poverty is also in line with the principles of the right to life, survival and development articulated in the Convention of the Rights of the Child (CRC), which guarantees minimum standards for protection and development of children, such as education and health care. The CRC was adopted by the United Nation General Assembly in 1989 and was ratified by the Government of the Kingdom of Swaziland in 1995.

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<sup>6</sup>Coudouel A, Hentschel JS, Wodon QT. *Poverty Measurement and Analysis*.

<sup>7</sup>UNICEF Mozambique (2006). *Childhood Poverty in Mozambique. A Situation and Trends Analysis*.

## 2.2 The Bristol Indicators of Deprivation

The Bristol Indicators of Deprivation have been developed by the University of Bristol in the United Kingdom. These indicators are designed to measure severe deprivation in the following seven basic areas: clean water, sanitation facilities, healthcare, shelter, formal education, and information (Gordon et al. 2003). The exact definitions of the indicators are provided in the Appendix. It is worthwhile to note that different age ranges were used to construct these measures. For water, sanitation and shelter, all children aged zero to 17 years are included, while for education children aged seven to 17 are considered. For information the target population is children aged three to 17. For health and nutrition only children under five years of age are included.

Using these deprivation based measures, a child – any human being below the age of 18 years – is classified as being in absolute poverty if she or he has two or more deprivations. As a robustness check, we will also look at three or more deprivations as an indicator of absolute poverty.

## 2.3 Data sources

In this study, data from the latest Swaziland Demographic and Health Survey (SDHS) conducted in 2006/07 were used to construct the Bristol Indicators. The SDHS is a population-based household survey and is designed to provide up-to-date information on multiple dimensions of individuals' lives, including maternal and child health, fertility, family planning, HIV prevalence, HIV/AIDS related knowledge and behavior. It is the first nationally representative household survey that collected in depth health and demographic information on the population of Swaziland.

## 2.4 Methodology

All analyses were conducted using Stata/MP 10.0 for Windows (College Station, Texas, USA). All estimates used sampling weights that account for the complex survey design nature of the SDHS. Logistic regression was used to look into factors underlying each type of deprivation. The independent variables included are: urban residence, whether the child is female, household wealth index, household size, women's education and administrative regions (Hhohho, Manzini, Shiselweni and Lubombo). In addition, several variables indicating household vulnerability were included: whether there is a sick adult in the household, whether there is an elderly person (defined as age 70 and above) in the household, high dependency ratio (i.e., the number of children/the number of adults  $\geq 4$ ). In order to estimate the size of the effects of the independent variables, we calculated the marginal effect for each variable. Adjusted Wald tests were used to test equality of estimated coefficients. P-values  $< 0.10$  were considered statistically significant.

# 3 CHILDHOOD POVERTY IN SWAZILAND

This section reports findings from the SDHS on the extent and distribution of severe deprivations among Swazi children. First, basic data on the demographic and socioeconomic characteristics are presented. Second, an overview of severe deprivations among Swazi children is presented both at the national and regional levels. The section then focuses on two types of disparities: between urban and rural areas and between female and male children. Lastly, underlying causes of child poverty are explored using a regression framework. A host of possible underlying causes are examined, including demographic and socioeconomic factors as well as family vulnerability factors

## 3.1 Demographic and Socioeconomic Characteristic of Swazi Children from the SDHS

Demographic and socioeconomic characteristics of children from the SHDS are presented for all children as well as for ages zero to 5 and ages six to 17 in Table 1. For all age groups, there are equal proportions of female and male children. The mean household size is eight persons for all children and for both age groups.

The proportion of women with no education is 13 percent for both age groups and 37 percent for children aged zero to 5 and 36 percent for children aged six years or older. The proportion of women with secondary school education is 44 percent for both age groups. For children aged six to 17, 6.5 percent of women have tertiary education, and for children aged zero to 5, 6.1 percent of women have tertiary education.

Patterns of wealth index are similar between children aged zero to 5 and six to 17. The proportion of children who live in households with the lowest and second lowest quintile is 46 percent for children aged zero to 5 and 44 percent for children aged six to 17. Thirty-four percent of children aged zero to 5 come from households from the two highest wealth quintiles and 35 percent of children aged six to 17 are from those in the two highest wealth quintiles.

The proportion of orphan children is 24 percent among all children and orphanhood is higher for the older age group. For children aged zero to 5 about 9 percent of children are orphaned and 32 percent of children aged six to 17 are orphans. Nationally, half of all children live in households with at least one orphan child. The proportion of children who live in households with at least one orphan is 43 percent of children aged zero to 5 and 53 percent for those aged six to 17. The proportion of children who live in households with high dependency ratio (defined as households with four or more children per adult) is about 20 percent among all children. The proportion is higher among children aged six to 17, with 21 percent. The proportion of children who live with an elderly person is 12 percent for children aged zero to 5 and 15 percent for those aged six to 17. Six percent of children live in households with no adult in primary working age (defined as ages 18-54), and the comparable figure for children aged zero to 5 is 3 percent.

Nationally 84 percent of children live in rural areas. The proportion of rural children is somewhat higher among children aged six to 17, with 85 percent of them living in rural areas. The largest proportion of children (about 30 percent) live in Manzini, followed by Hhohho and Shiselweni (both 25 percent). The smallest proportion of children (21 percent) live in Lubombo.



### 3.2 Overview of Severe Deprivations among Swazi Children

The estimates of childhood poverty based on the Bristol Indicators at the national and regional levels are presented in Figure 1. The results show that 28 percent of Swazi children have two or more severe deprivations. There is a wide disparity within the four regions. Lubombo has the highest with approximately 45 percent of children having two or more deprivations. This is followed by Shiselweni (31 percent) and Hhohho (23 percent). Manzini has the lowest proportion of children with two or more deprivations, with 17 percent. The data also show that 9 percent of children have three or more deprivations. The pattern of three or more deprivations across four regions was similar to that of two or more deprivations: Lubombo has the highest proportion of children with three or more deprivations (18 percent) followed by Shiselweni (9 percent) and Hhohho (8 percent). In Manzini only 4 percent of children have three or more deprivations.

**Figure 1. Severe Childhood Deprivation in Swaziland**

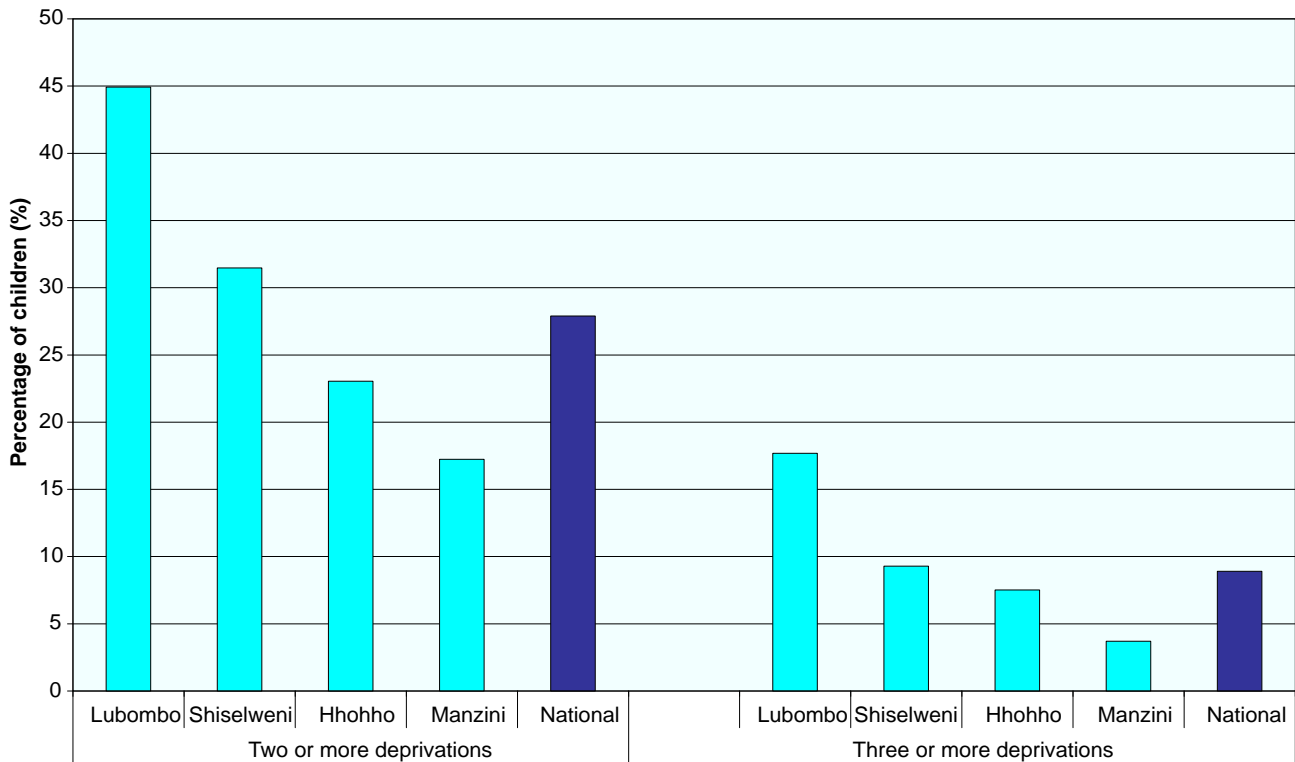
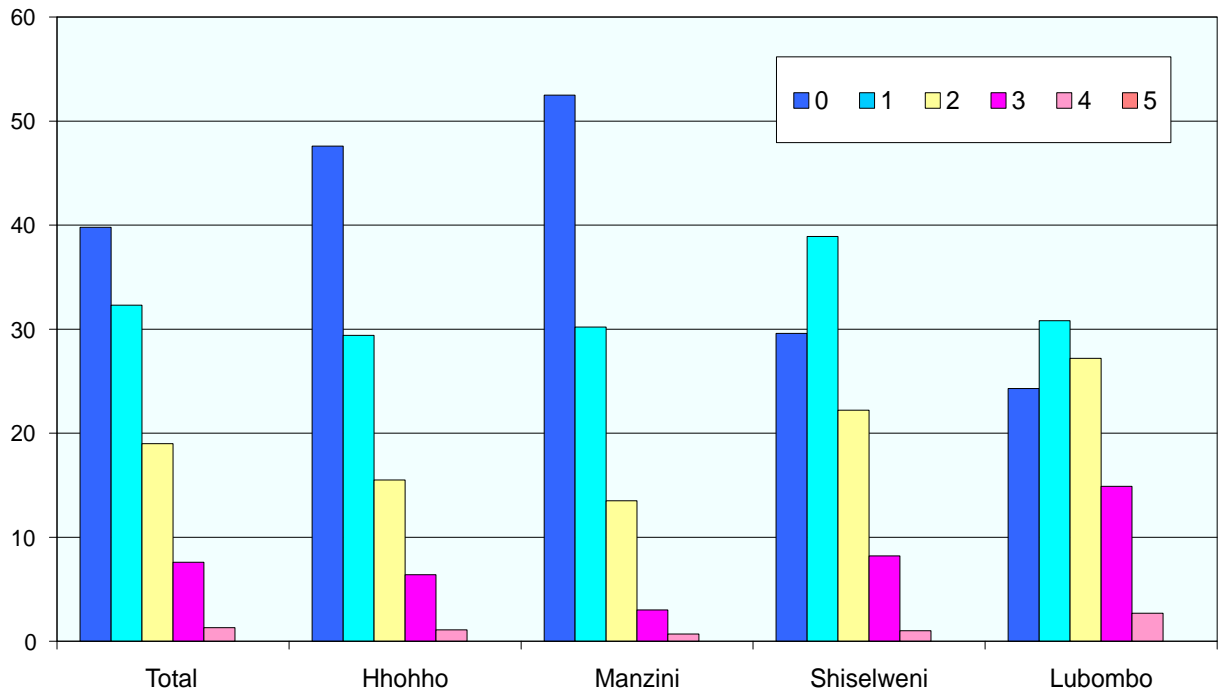


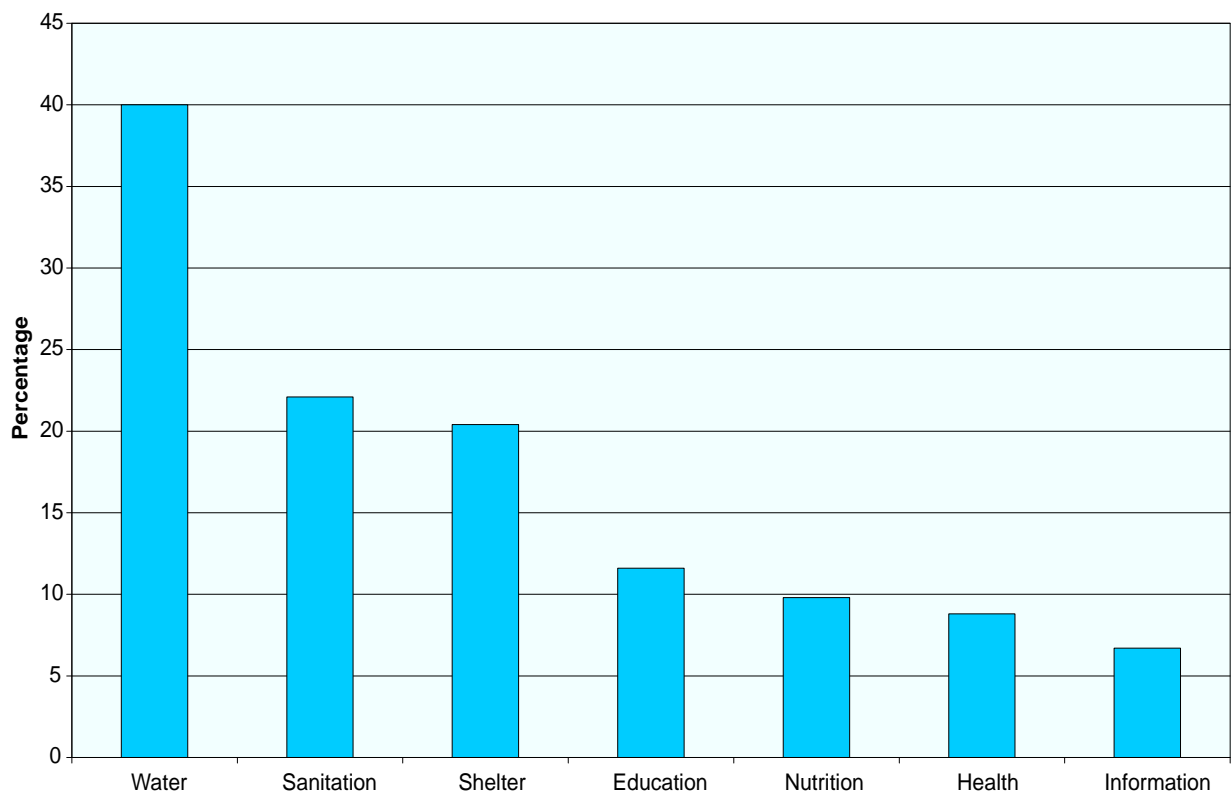
Figure 2 tabulates the number of severe deprivations among Swazi children at both national and regional levels. The mean number of severe deprivations is 0.98 at the national level. As in the prevalence of severe deprivations Manzini is faring the best with a mean number of deprivations of 0.69, followed by Hhohho, which has a mean number of deprivations of 0.89. Based on the number of deprivations, Lubombo fares the worst of all regions, with a mean number of deprivation of 1.41. Shiselweni has a mean number of deprivations of 1.12. Fifty-three percent and 48 percent of children in Manzini and Hhohho, respectively, have no severe deprivations. The comparative figures are 24 percent for Lubombo and 30 percent for Shiselweni. No region has children with five severe deprivations.

The deprivation-based measures of childhood poverty for seven thematic areas are shown in Figure 3. The results indicate that 40 percent of Swazi children have severe water deprivation, while more than 20 percent of them have severe sanitation and shelter deprivations. For education, severe deprivation is 12 percent, and for health and nutrition severe deprivation is 9 and 10 percent, respectively.

**Figure 2. Number of Severe Deprivations among Swazi Children**



**Figure 3. Severe Deprivation by Thematic Areas**



The estimates of severe deprivations by region are presented for each thematic area in Table 1. When disaggregated by thematic area the patterns of deprivations across regions can be summarized as follows. In the area of safe water, children in Lubombo fare worst, with a majority of children (54 percent) facing severe water deprivations. This is closely followed by Shiselweni (50 percent). Hhohho and Manzini have similar proportions of children with severe deprivations at approximately 30 percent. For sanitation and shelter, again Lubombo fares worst, with the proportion of deprived children at 42 percent for sanitation and 30 percent for shelter. Shiselweni and Hhohho have comparable proportion of children with severe deprivation: approximately 20 percent for sanitation and 22 percent for shelter. Manzini again fares best with 12 percent of children with sanitation deprivation. For education, Shiselweni has the highest rate of severe deprivation of all regions, with 16 percent of children in education deprivation. This is followed by Lubombo where 12 percent of children are education deprived and approximately 10 percent for Hhohho and Manzini. For nutrition, Lubombo has the least proportion of children facing severe deprivation (8 percent). Hhohho has the largest proportion of children with severe deprivation (11 percent) and this is closely followed by Manzini and Shiselweni with 10 percent of children facing severe deprivation. In the area of nutrition, 11 percent of children in Lubombo are nutrition deprived and Hhohho and Manzini and Shiselweni have similar rates of nutrition deprivation at 8 percent. For information, the regional differences are less pronounced, with 8 percent for Shiselweni and 7 percent of Manzini and Lubombo and 6 percent of Hhohho.

**Table 1. Severe Deprivation by Region**

	Hhohho	Manzini	Shiselweni	Lubombo
<b>Water</b>	29.0	30.3	49.8	54.4
<b>Sanitation</b>	18.7	12.5	20.6	41.9
<b>Shelter</b>	22.2	11.8	22.0	28.7
<b>Education</b>	9.5	9.4	16.2	11.8
<b>Nutrition</b>	11.4	9.9	9.9	7.5
<b>Health</b>	8.1	8.3	8.2	11.1
<b>Information</b>	5.7	6.5	8.0	6.7

### 3.2 Urban vs. Rural Disparity

Separate estimations of severe deprivations for urban and rural areas is presented in Figure 4. The results show a striking urban-rural disparity in both measures of severe deprivations. In terms of two or more deprivations, the rate of deprivation among rural children is more than six times higher than the rate among urban children (adjusted Wald test,  $p < 0.01$ ). The difference is even greater in terms of three or more deprivations. The rate of deprivation for rural children is nearly ten times higher than the rate for urban children ( $p < 0.01$ ).

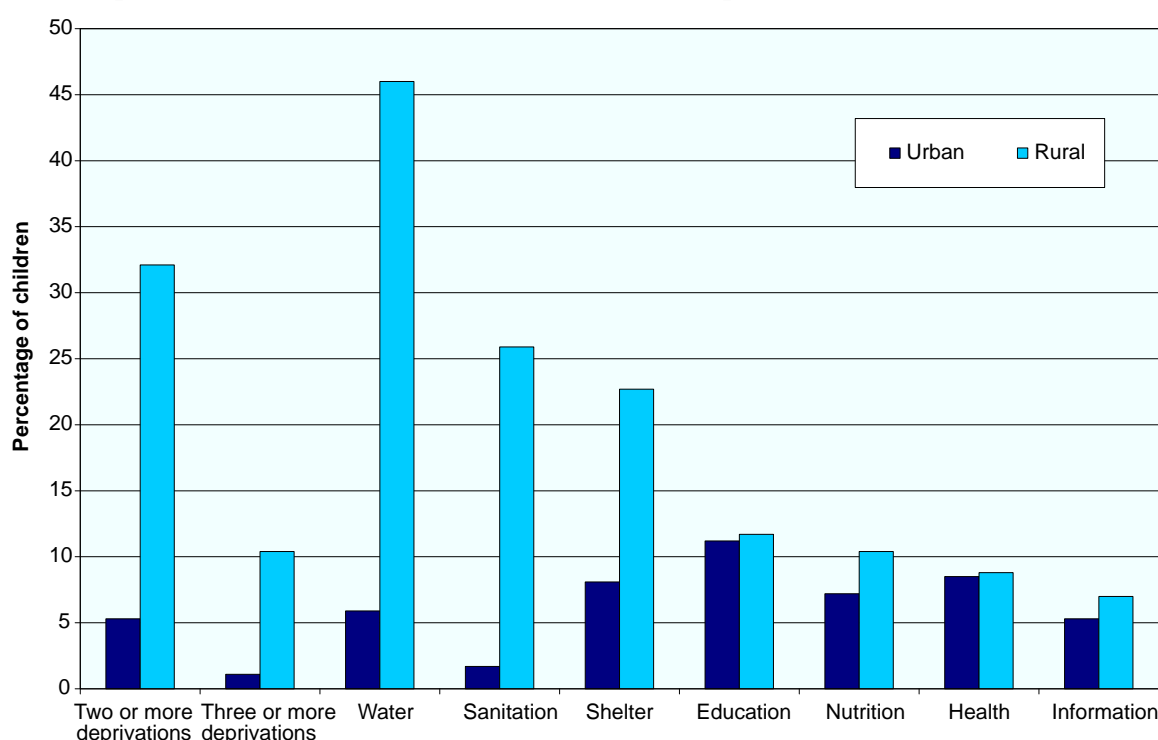
A large disparity between urban and rural areas is also seen across the thematic areas of water, sanitation and shelter. In the area of water, the rate of severe deprivation for rural children is 7.8 times higher than that for urban children ( $p < 0.01$ ). The rate of sanitation deprivation is approximately 15 times higher for rural children than for urban children ( $p < 0.01$ ). The rate of severe deprivation for shelter is 2.8 times higher for rural children compared to urban children ( $p < 0.01$ ).

In contrast to the results from water, sanitation and shelter, there is no significant rural-urban disparity in the remaining areas of education, nutrition, health and information. For education, no significant difference was

observed between urban (11 percent) and rural children (2 percent) ( $p = 0.75$ ). The rate of severe deprivation in health is 8.8 percent for rural children and 8.5 percent for urban children; not a statistically significant difference ( $p = 0.88$ ). For nutrition, there is a marginal difference in the rate of deprivation between rural and urban children (about 45 percent), but the difference is not statistically significant ( $p = 0.12$ ). For information, the rate of deprivation is slightly higher for urban areas (7 percent among rural children vs. 5.3 percent among urban children), but the difference again is not statistically significant ( $p = 0.18$ ).

The results for education deprivation present a more mixed picture. In Manzini and Shiselweni, severe deprivation is higher in urban areas, while in Hhohho deprivation is higher in rural areas.

**Figure 4. Proportion of Children with Two or More Severe Deprivations in Urban and Rural Areas**

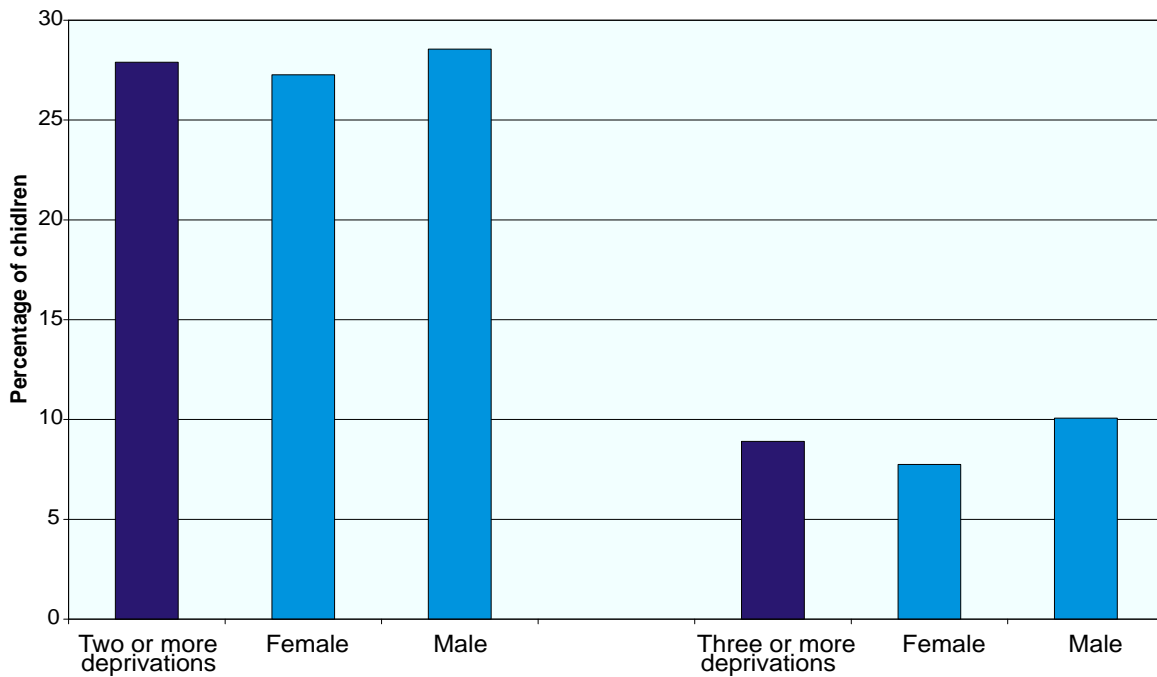


### 3.3. Gender Disparity

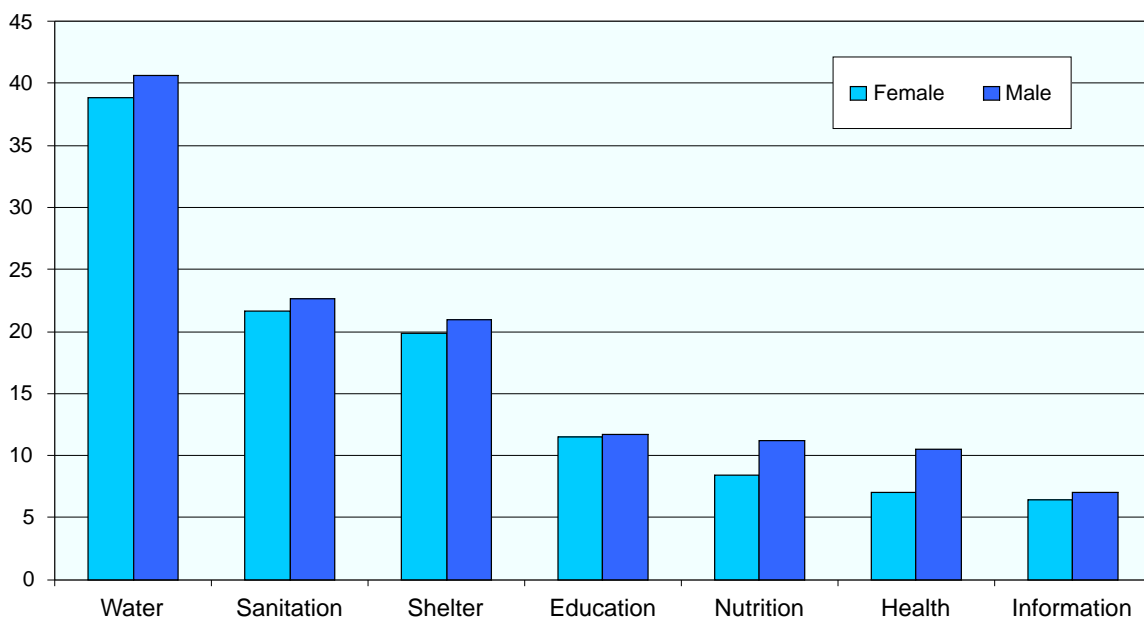
Figure 5 presents separate estimates of severe deprivation for female and male children. The results show that there is no significant difference between female and male children in terms of two or more deprivations. In terms of three or more deprivations, female children are indeed 2.3 percentage points less likely than male children to face deprivations (Adjusted Wald test,  $p < 0.01$ )

The gender-specific rate of severe deprivation for each thematic area is presented in Figure 6. The results show that female children are significantly less likely to have severe health deprivation than male children ( $p < 0.01$ ). Female children are also less likely to be nutrition deprived compared to male children ( $p = 0.05$ ). For education, water, sanitation, shelter and information, no significant differences between female and male children were found. These findings provide support for the view that female children are no worse off than male children in terms of the deprivation measures used in this study.

**Figure 5. Overall Severe Deprivations by Gender**



**Figure 6. Severe Deprivations by Gender**



### 3.4. Underlying Causes of Severe Deprivations among Children in Swaziland

#### **Overall Deprivations**

Table 2 presents the results of regression analysis of severe deprivations among Swazi children. There is one strong predictor of the likelihood of overall severe deprivation: household wealth. For example, children from households with the highest wealth quintile are 32 percentage points less likely than those from the lowest

wealth quintile to have two or more deprivations. Children from households with the second lowest wealth quintile are 15 percentage points less likely than those from the lowest wealth quintile to have two or more deprivations. A woman's education also has a considerable effect on the likelihood of having two or more deprivations. Children from households with a woman with tertiary education are 10 percentage points less likely than those from households with a woman with less than primary education to have two or more deprivations. Region also plays a role. Children from Lubombo are 7.7 percentage points more likely than those from Hhohho to have two or more deprivations. Interestingly, after controlling other factors, orphanhood actually decreases the likelihood that a child has two or more deprivations by 2.8 percentage points. Other household vulnerability was not found to have significant effects on severe deprivations. The patterns of the results are similar when overall deprivation is measured in terms of having three or more deprivations; however, the independent variables generally have less pronounced effects on the likelihood of overall deprivations. Also, being female is found to have a small protective effect (0.6 percentage points) when overall deprivation is measured in terms of having three or more deprivations.

### ***Education, Health and Nutrition***

For education, there are several strong predictors of deprivations. Children who are older, from urban households, from households in the Lubombo region, or from households with lower wealth or woman's education are significantly more likely than children without these factors, to experience severe deprivation in education. The biggest impact comes from woman's education: children from households with a woman with tertiary education or secondary education are 6.1 and 7.6 percentage points less likely to be education deprived, than those from households with a woman with no education. Residency in Lubombo significantly increases the likelihood of severe deprivation in education (by 6.5 percentage points). In addition, having a sick adult in the household also significantly increases the likelihood that a child is education deprived (by 5.1 percentage points). In contrast, high dependency ratio significantly reduces the likelihood of education deprivation among children (by - 4.3 percentage points). Orphanhood is not found to influence whether or not a child is education deprived. This is likely to reflect the confounding of school attendance with being a beneficiary of the OVC Education Grant, a public bursary scheme that was instituted in 2003 that pays school fees for OVC, in particular orphans.

For health and nutrition, generally there are fewer predictors of severe deprivation compared to education. Being female reduces the likelihood that a child is health deprived; however, the size of the effect is small (0.3 percentage points). Household wealth and woman's education have only inconsistent and marginal effect on the likelihood of health deprivation. In regard to nutrition, children from households with the highest wealth quintile are 4.1 percentage points less likely to be nutrition deprived than those from households with the lowest quintile. Children in Lubombo are 2.7 percentage points less likely to be nutrition deprived than those in Hhohho. In contrast to education deprivation, household vulnerability variables are not found to influence the likelihood of health and nutrition deprivation.

### ***Water and Sanitation***

The results from logistic regression of water and sanitation deprivations are shown in Table 4. For both water and sanitation, rural residency and household wealth are the strongest predictors of deprivations. Children from rural households are 25 percentage points more likely than urban households to be water deprived and 5.7 percentage points more likely to be sanitation deprived. In addition, children from Lubombo and Shiselweni are significantly more likely than those from Hhohho to be water deprived, with 19 percentage points for Lubombo and 12 percentage points for Shiselweni. Household vulnerability, such as an orphan, a sick adult or an elderly person in the household have no effect on the likelihood of severe deprivation for water.

In contrast, there are a greater number of variables that impact the likelihood of severe deprivation in sanitation. For example, woman's education is negatively associated with the likelihood of sanitation deprivation: children from households with a woman with tertiary education are 3.9 percentage points less likely to be sanitation deprived than those from household with woman with no education. Residency in Lubombo significantly increases the likelihood of sanitation deprivation (approximately 4 percentage points). In addition, sanitation

deprivation is also increased if there is a sick adult in the household (3.9 percentage points). However, children from households with an orphan are 2.1 percentage points less likely than those without an orphan to be sanitation deprived. Larger household size has a negative, yet small effect on the likelihood of sanitation deprivation. A possible explanation for a greater sensitivity of sanitation deprivation with respect to household socioeconomic and demographic factors compared to water deprivation may be a difference in decision making in terms of access to these services. Specifically, households may have more control over access to a sanitation facility, but the same may not apply for access to safe water.

### ***Shelter and Information***

Shelter has several strong predictors of deprivation, including household wealth, woman's education, region of residency, household size and high dependency ratio. The strongest predictor of shelter deprivation is household wealth: children from the second lowest wealth quintile are 11 percentage points less likely than those from the lowest wealth quintile to have shelter deprivation, while children from the highest quintile are more than 15 percentage points less likely to be shelter deprived. Surprisingly, residency in Hhohho positively increases the likelihood of shelter deprivation: children in Hhohho are 5.8, 4.4 and 3.7 percentage points more likely to be shelter deprived, compared to those from Manzini, Shiselweni and Lubombo, respectively. Having an elderly person in the household slightly decreases the likelihood of deprivation in shelter (2.6 percentage points), while high dependency ratio increases it (by 4.8 percentage points per one unit increase).

There are few predictors of information deprivation; namely, urban residency and household wealth. Interestingly, urban residency is significantly positively associated with the likelihood of information deprivation: urban children are 4.3 percentage points more likely than rural children to be information deprived. Household wealth is negatively associated with the likelihood of information deprivation. However, the magnitude of the effect of household wealth is smaller than that for shelter (in the order of 2-7 percentage points).

# 4 CONCLUSIONS

## 4.1 Summary of the Findings

This study has documented for the first time the extent and distribution of severe deprivations among children in Swaziland. The results of the study suggest that there is high prevalence of severe deprivations in Swaziland. Using the Bristol Indications of Deprivation, the proportion of children with two or more deprivations is 28 percent and with the proportion with three or more deprivations is 9 percent. Severe deprivation is found to be greatest in the areas of water and sanitation, followed by shelter. For education, severe deprivation is 12 percent, and for health and nutrition severe deprivation is 9 and 10 percent, respectively.

A closer look at severe deprivations reveals several patterns of urban vs. rural disparities. The results show that children in rural areas are significantly more likely than those in urban areas to have two or more deprivations and three or more deprivations. This largely reflects that children in rural areas are significantly more likely than those in urban areas to have severe deprivation in water, sanitation and shelter. In the areas of education, health and nutrition, urban children are as likely as rural children to be severely deprived.

The results reveal few gender disparities between female and male children. The results show that there is no significant difference between female and male children in terms of two or more deprivations. In terms of three or more deprivations, female children are indeed 2.3 percentage points less likely than male children to face deprivations. The results also show that female children are significantly less likely to have severe health deprivation than male children. Female children are also less likely to be nutrition deprived compared to male children. For education, water, sanitation, shelter and information, we found no significant differences between female and male children. These findings provide support for the view that female children are no worse off than male children in terms of the deprivation measures used in this study.

An in depth investigation into underlying factors of severe deprivation using logistic regression framework uncover several interesting observations. First, household wealth is the most important factor behind overall deprivation, followed by woman's education level. Residency in Lubombo, and orphanhood, also significantly increase overall deprivation. However, looking at each thematic area, there are different sets of underlying factors affecting severe deprivation. For water, household wealth and region of residency are the strongest predictors of severe deprivation. For sanitation and shelter, woman's education and household vulnerability are found to be as important as household wealth and region of residency. There are two factors affecting information deprivation, urban residency and household wealth.

Education has several strong factors influencing severe deprivation, including household wealth, urban residency, residency in Lubombo, household vulnerability and most importantly, woman's education. Interestingly, orphanhood does not affect the likelihood of education deprivation. Health and nutrition have fewer factors affecting deprivation. This may reflect the small proportion of children with health and nutrition deprivation, with less than one in 10 children having severe deprivation.

## 4.2 Study Implications

This study has shown for the first time, that when using a deprivation-based measure, there is a high prevalence of absolute poverty among children in Swaziland. In terms of possible response and intervention strategies,



there are a number of implications that emerge from the study. First, raising household income/assets and reducing household vulnerability will be essential in combating severe deprivations currently prevailing among children in Swaziland. The same importance also applies to women's education level, which has a strong influence on severe deprivation, especially in the areas of education, sanitation and shelter. With the exception of sanitation, orphanhood was not found to increase any particular type of deprivation. Contrary to conventional wisdom, there was a small but negative association between overall severe deprivation and orphanhood.

There are two possible explanations for why orphanhood is not linked to higher deprivation among children. One explanation is that past and ongoing interventions targeting orphans or households with orphans have been effective in improving access to basic services among orphans. This may be the case with education deprivation, where the introduction and expansion of the OVC Education Grants in the last several years have contributed to increased access to education by orphans. Available data show a closing gap between OVC and non-OVC in school attendance over the last several years.<sup>8</sup> The other possible explanation is that orphanhood is only one of the many important proxies for a child's vulnerability. This seems a particularly plausible explanation for Swaziland, where there is a very high prevalence of absolute poverty (according to the World Bank estimate, 65 percent of the population lived on less than US\$1 a day in 2005). This may be particularly applicable to water, sanitation and shelter deprivation. The implication of this is that a multi-dimensional approach may need to be taken when identifying a 'vulnerable' child. Indeed, other household level factors such as household wealth, woman's education and geography, may also need to be taken into consideration.

The study results also confirm existing evidence indicating the severity of deprivation among rural children. However, there are areas where rural children fare as well as urban children – in the area of health and nutrition. This finding may be linked to the prevalence of most past and current health and nutrition interventions in rural areas. In education, rural children are doing as well as urban children. A closer look at urban-rural disparities indicates that in some areas, urban children may actually be worse off than rural children. This suggests that some urban areas may not have been adequately covered by existing interventions. The results also suggest that in the area of health and nutrition, more novel, innovative approaches may be needed to reach these last 10 percent, hardest-to-reach children. Interestingly, there is no strong evidence on gender disparity in terms of severe deprivations: female children are doing as well or even better than male children in certain areas.

As there has been a great deal of intervention targeting children in Swaziland in recent years, further research explicitly linking these interventions to severe deprivations may be warranted. Only such studies can provide answers to whether current interventions are contributing to improvement in the well-being of children. For this purpose, it is critical that we continue to monitor and track over time trends in severe deprivations among Swazi children.

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<sup>8</sup>Government of Swaziland (2008). Swaziland Demographic and Health Survey 2006/07, and Ministry of Education data.

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## TABLES

Table 1. Demographic and socioeconomic characteristics of children in Swaziland

	All ages	Ages 0-5	Ages 6-17
<b>No of observations</b>	11,190	3,713	7,477
<b>Gender (%)</b>			
Female	50.1	50.5	49.9
Male	49.9	49.5	50.1
<b>Age (in years, %)</b>			
0-5	33.4		
6-8	22.2		
9-12	17.2		
13-14	16.8		
15-17	10.5		
<b>Mean household size (persons)</b>	7.9	8	7.9
<b>Women's education (%)</b>			
None	13	12.6	13.2
Primary	36.4	37	36
Secondary	44.3	44.3	44.3
Tertiary+	6.3	6.1	6.5
<b>Wealth index quintiles (%)</b>			
1st quintile (poorest)	22.3	23	22
2nd	22.1	22.8	21.7
3rd	20.9	20.1	21.2
4th	19	18.3	19.3
5th (richest)	15.8	15.8	15.8
<b>Family vulnerability (%)</b>			
Orphan	24	8.7	31.8
Orphan child in household	49.7	42.6	53.2
High dependency ratio (4+ children per adult)	19.2	16.2	20.8
Elderly (70+) person in household	13.8	12.3	14.5
Sick adult in household	5.1	5.5	4.8
No adult in primary working age (18-54)	5.1	3.2	6.1
<b>Residence (%)</b>			
Urban	15.6	17.2	14.8
Rural	84.4	82.8	85.1
<b>Region (%)</b>			
Hhohho	24.9	25.9	24.3
Nanzini	29.7	29.9	29.6
Shiselweni	24.9	23.9	25.4
Lubombo	20.5	20.3	20.7

**Table 2. Logistic regression of overall deprivations (marginal effects)**

	<b>Absolute poverty (2 or more deprivations)</b>	<b>Absolute poverty (3 or more deprivations)</b>
Urban	-0.045 [0.032]	-0.009 [0.008]
Female	-0.006 [0.009]	- 0.006*** [0.002]
Age (in years)	0.001 [0.001]	0.000 [0.000]
Second wealth quintile	- 0.154*** [0.017]	- 0.026*** [0.005]
Third wealth quintile	- 0.229*** [0.017]	- 0.035*** [0.007]
Fourth wealth quintile	- 0.262*** [0.019]	- 0.056*** [0.009]
Fifth wealth quintile	- 0.308*** [0.017]	- 0.039*** [0.006]
Woman's education - primary school	-0.044** [0.020]	-0.006 [0.004]
Woman's education - secondary school	- 0.063*** [0.020]	- 0.012** [0.005]
Woman's education - tertiary education	- 0.104*** [0.032]	-0.008 [0.005]
Manzini	-0.036 [0.029]	-0.001 [0.005]
Shiselweni	-0.000 [0.029]	0.008 [0.006]
Lubombo	0.077** [0.036]	- 0.008*** [0.003]
Orphanhood	- 0.028** [0.013]	-0.001 [0.001]
Household size	0.001 [0.003]	-0.000 [0.005]
Elderly in the household	-0.015 [0.021]	0.014 [0.011]
Sick adult in the household	0.050 [0.033]	0.007 [0.005]
High dependency ratio	0.022 [0.022]	-0.009 [0.008]

Standard errors in brackets

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Table 4. Logistic regression of water and sanitation deprivations (marginal effects)**

	<b>Water</b>	<b>Sanitation</b>
Urban	-0.253*** [0.036]	-0.057*** [0.014]
Female	- 0.010 [ 0.011]	- 0.002 [0.003]
Age (in years)	- 0.002** [0.001]	- 0.001* [0.000]
Second wealth quintile	-0.081** [0.033]	-0.044*** [0.011]
Third wealth quintile	-0.143*** [0.029]	-0.072*** [0.016]
Fourth wealth quintile	-0.164*** [0.030]	-0.081*** [0.018]
Fifth wealth quintile	-0.341*** [0.032]	-0.164*** [0.021]
Woman's education-primary school	0.018 [0.035]	-0.029*** [0.011]
Woman's education-secondary school	- 0.016 [0.036]	-0.036*** [0.014]
Woman's education-tertiary education	0.091 [ 0.077]	-0.039** [0.019]
Manzini	0.042 [0.060]	- 0.014 [0.012]
Shiselweni	0.118** [0.057]	- 0.012 [0.012]
Lubombo	0.186*** [0.067]	0.042** [0.021]
Orphanhood	0.036 [0.024]	- 0.021** [0.008]
Household size	- 0.004 [0.003]	- 0.002 [0.001]
Elderly in the household	0.010 [0.033]	- 0.009 [0.009]
Sick adult in the household	0.003 [0.044]	0.039* [0.023]
High dependency ratio	0.023 [0.028]	0.002 [0.009]

Standard errors in brackets

\*\*\* p&lt;0.01, \*\* p&lt;0.05, \* p&lt;0.1

**Table 3. Logistic regression of education, health and nutrition deprivations (marginal effects)**

	<b>Education</b>	<b>Health</b>	<b>Nutrition</b>
Urban	0.070*** [0.026]	0.001 [0.003]	- 0.001 [0.017]
Female	0.003 [0.008]	-0.003* [0.001]	-0.015 [0.009]
Age (in years)	0.012*** [0.002]	-0.002*** [0.001]	-0.004** [0.001]
Second wealth quintile	- 0.020 [0.014]	- 0.002 [0.001]	- 0.007 [0.012]
Third wealth quintile	-0.029** [0.013]	- 0.003* [0.002]	- 0.020 [0.013]
Fourth wealth quintile	-0.030** [0.013]	- 0.003 [0.002]	- 0.011 [0.013]
Fifth wealth quintile	0.067*** [0.012]	- 0.002 [0.003]	-0.041** [0.020]
Woman's education - primary school	0.040*** [0.015]	- 0.002 [0.002]	0.009 [0.015]
Woman's education - secondary school	0.076*** [0.018]	- 0.003 [0.002]	- 0.006 [0.015]
Woman's education - tertiary education	0.061*** [0.015]	- 0.004* [0.002]	- 0.020 [0.021]
Manzini	0.005 [0.017]	0.000 [0.002]	- 0.007 [0.011]
Shiselweni	0.065** [0.030]	- 0.000 [0.002]	-0.013 [0.009]
Lubombo	0.019 [0.018]	0.001 [0.002]	-0.027** [0.012]
Orphanhood	- 0.000 [0.011]	- 0.005 [0.003]	- 0.002 [0.021]
Household size	0.002** [0.001]	0.000 [0.000]	0.000 [0.001]
Elderly in the household	0.027 [0.018]	0.001 [0.002]	0.006 [0.013]
Sick adult in the household	0.051** [0.025]	0.003 [0.003]	0.014 [0.019]
High dependency ratio	0.043*** [0.012]	0.001 [0.002]	- 0.009 [0.011]

Standard errors in brackets

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Table 5. Logistic regression of shelter and information deprivations (marginal effects)**

	<b>Shelter</b>	<b>Information</b>
Urban	0.054 [0.038]	0.047** [0.019]
Female	- 0.004 [0.006]	- 0.003 [0.004]
Age (in years)	-0.001*** [0.000]	- 0.000 [0.000]
Second wealth quintile	-0.108*** [0.014]	0.021* [0. 012]
Third wealth quintile	-0.137*** [0.016]	- 0.006 [0.009]
Fourth wealth quintile	-0.156*** [0.018]	-0.029*** [0.009]
Fifth wealth quintile	-0.152*** [0.019]	-0.069*** [0.012]
Woman's education - primary school	- 0.008 [0.017]	0.014 [0.014]
Woman's education - secondary school	- 0.033** [0.016]	0.015 [0.013]
Woman's education - tertiary education	-0.090*** [0.016]	- 0.021 [0.017]
Manzini	-0.057*** [0.017]	0.003 [0.010]
Lubombo	-0.043** [0.017]	0.010 [0.012]
Siselweni	- 0.037** [0.015]	0.002 [0.011]
Orphanhood	0.012 [0.014]	-0.006 [0.008]
Household size	0.006*** [0.002]	- 0.000 [0.001]
Elderly in the household	- 0.026* [0.015]	0.002 [0.011]
Sick adult in the household	- 0.011 [0.019]	- 0.009 [0.012]
High dependency ratio	0.045 ** [0.018]	- 0.003 [0.010]

Standard errors in brackets

\*\*\* p&lt;0.01, \*\* p&lt;0.05, \* p&lt;0.1

## APPENDIX

### Indicators

#### **Severe water deprivation**

Children under 18 years of age who only have access to surface water or for whom it takes 30 minutes or longer to collect water (walk to the water, collect it and return).

#### **Severe sanitation deprivation**

Children under 18 years of age who have no access to a toilet of any kind in the vicinity of their dwelling, including communal toilets or latrines

#### **Severe shelter deprivation**

Children under 18 years of age living in dwellings with no floor or with more than five people per room (severe overcrowding)

#### **Severe health deprivation**

Children under 5 years of age that have never been immunized or those that have suffered from an episode of diarrhea that was not treated

#### **Severe education deprivation**

Children aged between seven and 17 who have never been to school and are not currently attending school

#### **Severe nutrition deprivation**

Children under five years of age who are more than three standard deviations below the international reference population for stunting (height for age) or wasting (height for weight) or underweight (weight for age). This is also known as anthropometric failure.

#### **Severe information deprivation**

Children aged between three and 17 with no possession of and access to radio, television, telephone, or mobile phones at home

Source: UNICEF (2007). *Global Study on Child Poverty and Disparities 2007-2008 Guide*.









