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Thari ya bana

Reflections on Children in Botswana 2011

Edited by Tapologo Maundeni and Maria Nhyepi



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Acronyms

ACRWC	African Charter on the Rights and Welfare of Children	MFPD	Ministry of Finance and Development Planning
AIDS	Acquired Immune Deficiency Syndrome	MDG	Millennium Development Goals
AU	African Union	MICS	Multiple Indicator Cluster Survey
BAIS	Botswana AIDS Impact Survey	MLG	Ministry of Local Government
BIDPA	Botswana Institute for Development Policy Analysis	MOH	Ministry of Health
CMG	Child Maintenance Grant	NACA	National AIDS Coordination Agency
CRC	Convention on the Rights of the Child	OVC	Orphans and Vulnerable Children
CSG	Child Support Grant	PDL	Poverty Datum Line
CSO	Central Statistics Office	SADC	Southern Africa Development Community
DSS	Department of Social services	SGCD	Social and Community Development
FAO	Food and Agriculture Organisation	STI	Sexually Transmitted Infections
GDP	Gross Domestic Product	STPA	Short Term Plan of Action
GMP	Growth Monitoring and Promotion	U5MR	Under-5 Mortality Rate
HFIAS	Household Food Insecurity Access Scale	UN	United Nations
HIES	Household Income and Expenditure Survey	UNECA	United Nations Economic Commission for Africa
HIV	Human Immunodeficiency Virus	UNGASS	United Nations General Assembly Special Session
ILO	International Labour Organisation	UNICEF	United Nations Children's Fund
IMR	Infant Mortality Rate	UNPD	United Nations Population Division
LFS	Labour Force Survey	VAS	Vitamin A Supplementation



Foreword

We are delighted to welcome you to the second edition of the joint UNICEF and University of Botswana publication: *Thari Ya Bana: Reflections on Children in Botswana 2011*.

The title, *Thari Ya Bana*, refers to the blanket that holds the infant safe behind the mother – and was chosen to symbolise the support that all children need, from infancy through to adolescence and the transition to adulthood, where the roles reverse and the focus moves to parenthood. And so the cycle continues.

While the articles presented here bring together research and reflections on children's issues in Botswana the issues themselves are not unique to Botswana and thus the findings reported in this publication will also benefit children in other countries. The articles in the various chapters of the publication have been structured to follow the life cycle of the child as she or he grows and is faced with different issues that need to be addressed. As such the publication is divided into 5 sections. These are:

- Young Child Survival
- Child Development
- Child Protection
- HIV and AIDS
- Child-sensitive Social Protection

The introduction in each chapter of the publication provides a brief summary of findings from existing secondary analysis and population based data. As with last year's publication, to complement the analytical articles, a compendium of the most current data available on a wide range of indicators of child wellbeing, drawing mostly from recent national household surveys has been included.

The range of topics for this second edition is matched by a range of authors from the University of Botswana, UNICEF and other national and international organizations. Some of the authors draw upon previously published work, some share work in progress, while others simply reflect on issues and priorities. Throughout, the authors aim not only to disseminate information to their peers but to also present their work in an accessible format to all those working to improve the lives of children in Botswana.

We hope that as you peruse *Thari Ya Bana* you will be able to use the evidence provided to influence your professional work, research or advocacy with and for the children of Botswana. We look forward to your feedback and future contributions!



Prof. Frank Youngman
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Child Survival



Key child survival indicators in Botswana show a downward trend despite extensive government investment. Since the late 1990's under-five mortality has been on the increase. Under-five mortality increased to 76 per 1000 live births in 2007, from 53 per 1000 live births in 1994.¹ In addition, in the same year (2007), 13% of under-fives were underweight, 26% stunted, and 7% wasted.² In 2007 it was estimated that 10% of children were overweight.³ The stagnation of child survival indicators is a clear indication of the need for more targeted interventions.

The four articles featured in this section cover child survival issues regarding child feeding practices, household food insecurity, coverage of nutrition programmes, and care practices of children in Botswana. In the articles by Ramolefhe and others, and Codjia and Nnyepi, the authors suggest that there is a distinct decline in child health status and further highlight the need for improved feeding practices in Botswana in order to facilitate healthy child growth, alongside nutrition education interventions for caregivers. While the article by Mmopelwa and colleagues identifies household food insecurity as an important factor in child nutritional status. In this regard factors that increase household food insecurity such as households size, uneducated heads of households and households headed by unmarried individuals invariably increase the likelihood of child malnutrition. The section ends with an article by Trivedi and others, in which the authors highlight the challenges faced by caregivers of diabetic children. It should be noted, as mentioned in the introductory paragraph above, that the increasing prevalence of overweight in children is a risk factor for childhood diabetes. Thus while it is important that caregivers of diabetic children are supported, perhaps priority should be on reducing the prevalence of diabetes. There is also a need to help children with health challenges such as diabetes to learn life skills and self-care practices.

1. CSO (2009), 2007 Botswana Family Health Survey IV Report.

2. *ibid*

3. *ibid*

1 Feeding practices, feeding environment and growth status of children (2–5 years) in Tubu, Shorobe and Xobe Molapo farming villages in Botswana

Background

Malnutrition among children is a major problem in Africa where approximately 45 million children under the age of five (<5) suffer from malnutrition (Alderman, Behrman & Hoddinott, 2004). Botswana is not an exception to this problem (Nnyepi, Mmopelwa & Codjia, 2010). Despite having a stable economy with reasonable literacy and numeracy rates and improved utilization of health services (Poverty Strategy Unit, Rural Development Coordination Division & Secretariat to the Multi-Sectoral Committee for Poverty Reduction, 2007) compared to other African countries, Botswana has persistent problems of child malnutrition and poor feeding practices (Nnyepi, Harari & Ntshembe 2010). Infant and young child feeding and care practices which may include feeding environment are classified as determinants of malnutrition (UNICEF, 1990).

Child feeding practices may include dietary diversity, frequency of meal consumption, snacking habits, beverage consumption, and the overall quality of diet. Lack of attention to these factors may contribute to malnutrition, which may impair growth in children. Caregivers are expected to provide and prepare nourishing food for the children to enhance growth. However, in some households, access to adequate nutritious food is a big challenge due to poverty. Notable amongst such are households in communities vulnerable to shocks such as flooding (especially in areas where flood recession farming (molapo farming) is practiced), droughts and erratic rainfall, which may adversely influence agricultural output and consequently food availability (Wilk & Kgathi, 2007). Although literature points out that caregivers are more likely to cushion children from food insecurity (Cook, Frank, Levenson *et al.*, 2006), when these shocks persist for a longer period, it becomes harder for households to cope.

Feeding environment is defined as the conditions around meals that affect food intake. These include location, overall atmosphere around meals and overall caregivers' care for the child (American Dietetic Association, 2009). The role of caregivers entails factors such as companionship whilst the child is eating, the meals or types of snacks offered during the day and modelling of expected eating behaviour. Lack of caregiver participation during the child's mealtime may compromise diet quality (Hughes, Shewchuk, Baskin, Nicklas & Qu, 2008). Feeding environment is critical in different aspects of child growth such as weight status, food intake regulation and nutrient intake (Shan, 2010). Growing children are vulnerable to poor nutrition (poor feeding practices) and childhood illnesses that may compromise their growth and development (Michaelsen, Weaver, Branca *et al.*, 2003). While some recovery may occur following situations of poor feeding and illnesses, Alderman *et al.* (2004) have shown that such recovery is never complete, especially when children are raised in environments similar to those that resulted from the poor growth (Alderman, Behrman, and Hoddinott, 2004).

Given the importance of feeding practices and feeding environments on children's growth, it is important that these factors are routinely evaluated with a view to developing solutions. There is no documentation of information on feeding environments of children in molapo farming communities. Given that caregivers in rural areas spend much of the time in the fields during agricultural seasons there is need to assess and describe the feeding environment of the children aged 2–5 years in such communities. Information generated may assist in developing interventions to address malnutrition.

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This article describes feeding practices, feeding environments, nutritional status and growth status of children aged 2–5 years in rural areas practicing molapo farming in Tubu, Shorobe and Xobe.

Methodology

The study was conducted in three villages, Tubu, Xobe and Shorobe, which are situated on the fringes of the Okavango Delta, Botswana. The populations for these villages are 754, 955 and 375 respectively (2001 Census, 2001 in Botswana Ecohealth Project, 2010). Common to these three villages is the practice of *molapo* farming (flood recession farming).

The study was conducted in November and December, 2010 as part of a bigger project – Botswana Ecohealth Project. A questionnaire was administered face to face to caregivers who were purposively selected with the inclusion criteria being someone practicing *molapo* farming and living in Tubu, Shorobe or Xobe. The questionnaire was designed to solicit information that describes the feeding practices and the feeding environment for children in the households for the respondents. Children between 2–5 years in the households were weighed and their height measurements were obtained. A total of 75 children (N=40 Females and N=35 Males) aged between 2 and 5 years old under the care of the interviewed caregivers constituted the study sample. Thus children who depended largely on breastfeeding and/or infant formula who are unlikely to be seriously affected by occasional poor feeding were excluded from the sample.

Data was analyzed using SPSS version 19 and WHO Anthro software version 3.2.2 (WHO, 2011). In assessing growth status, anthropometric measurements of weight and height were compared to those of the reference population in World Health Organization (WHO) database. The prevalence of weight for age (underweight), height for age (stunting) and weight for height (wasting) were estimated using WHO cut-off point of a z = scores below -2 . The conditions are considered severe when the z -scores of children for any of the indices fall below -3 . Although the study focuses on three villages, data was pooled together because the sample size was small and there were no significant variations across villages. This is consistent with previous work (Botswana Ecohealth Project PRAs, unpublished 2010), which showed that Wayei tribes dominate the three villages, hence observed minimal differences. The quality of children's diets were assessed indirectly by determining the proportion of different food groups represented in the children's diet over a period of 24 hours.

Survey results

Quality of children's diets

Most children's diets included food groups of cereal, milk and milk products, meat, oils and fats (Table 1). Commonly consumed foods in Tubu were items from the cereals (96.7%), milk and milk products (56.7%), meat (26.7%), oils and fats (50.0%) and hot beverages (such as tea and coffee (43.3%)) groups. A similar pattern was observed in Shorobe and Xobe. However, in Shorobe more children consumed foods from the meat, milk and milk products and dark green leafy vegetables food group. On average, very few children consumed foods rich in micronutrients like vitamin A, rich fruits and vegetables, legumes and nuts, fish, eggs, organ meats. Very few (1.1%) children whose caregivers were interviewed were reported as taking *Tsabana* (a fortified sorghum soya-blend provided as a supplement by the government).

Feeding environment

Most of the children (76.0%) did not share a plate with other children. They also fed themselves and had minimal supervision (presence of an adult in the vicinity when the child

Table 1 Food intake for children aged 2–5 years over a 24 hour period

Type of food	Percentage of children			
	Tubu	Xobe	Shorobe	3-village average
Cereals	96.7	87.0	100.0	94.6
Water	96.7	78.3	86.4	87.1
Milk and milk products	56.7	87.0	86.4	76.7
Meat	26.7	47.8	86.4	53.6
Oils and fats	50.0	43.5	54.5	49.3
Hot beverages (tea/coffee)	43.3	34.8	63.6	47.2
Dark green fresh vegetables	13.3	26.1	40.9	87.1
Legumes and nuts	20.0	21.7	18.2	20.0
Other fruits or vegetables	6.7	0	36.4	14.4
Concentrated drinks and sugary foods	3.3	8.7	4.5	5.5
Vitamin A rich fruits and vegetables	10.0	0	0	3.3
Root vegetables	3.3	0	9.1	4.1
Supplementary food (Tsabana, fortified maize meal)	3.3	0	0	1.1
Eggs	0	0	0	0
Fresh/dried fish	0	0	0	0
Organ meats	0	0	0	0

Table 2 Environment around child feeding times

Environment around feeding time	Percentage of children
Child self-feeds with minimal supervision but without sharing a plate	76.0
Child self-feeds and shares plate with other children	22.7
Child is fed by caregiver without sharing a plate	8.0
Child self-feeds and shares a plate with caregiver	5.3

Table 3 Food given to children in between meals

Environment around feeding time	Percentage of households
Child is prepared food	41.3
Child is served food leftover from previous family meal	17.3
Child waits to eat with family	16.0
Child given milk only	16.0
Child is given refined snacks (biscuits, chips, sweetened drinks from concentrates)	9.3
Child is given tea only	1.3

was eating although the adult might be doing other household chores). A smaller proportion (22.7%) of children shared their food with other children.

The common food items that children were usually fed in between meals are presented in Table 3. Most children were served food specifically prepared for them (41.3%) whereas

others were served food left over from a previous meal (17.3%), milk (16%), refined snacks (9.3%) or tea (1.3). Examples of food items in the refined snack category are biscuits, potato or corn chips, and sweetened drinks from concentrates (9.3%). Sixteen percent of children were served food only when the family had a meal (16%).

Growth status of children

Most children had fewer meals per day than the recommended six. Sixty and 40% of children had 2 or less and 3 meals per day respectively. Thus, there were overall more cases of malnutrition in children with 2 or less meals per day compared to those with three meals. Amongst those consuming 2 or less meals a day, 11 out of 45 were underweight compared to 8 children among those who had three meals a day. Similarly, 13 out of 22 wasted children had two or less meals per day compared to 9. Stunting was not apparent possibly because stunting reflects chronic malnutrition while the other indicators show acute malnutrition.

Table 4 Growth status of children (2–5 years)

Category	Malnutrition in children			
	Underweight (WAZ)	Stunting (HAZ)	Wasting (WHZ)	Total
Children consuming two or less meals/day (N=45)	11	2	13	26
Children consuming three or more meals/day (N=30)	8	4	9	21
Overall malnutrition prevalence in children (N=75)	19	6	22	47



Discussion

Although diets of children (2–5 years) in Tubu, Xobe and Shorobe seem diversified, some food groups, especially fruits, vegetables, legumes/nuts and eggs were under represented. Children's diets are largely cereal based. Although not unique to developing countries it is undesirable that the children's diets were mainly cereal based as cereals, unless fortified, lack key nutrients that children need for growth and development (American Dietetic Association, 2004). The high consumption of cereals (94.7%) by children simulates eating patterns of most Batswana whose meals comprise largely of cereals followed by smaller amounts of meats and vegetables as relish. Consumption of other food groups such as fruits and vegetables, fish, eggs, legumes and nuts, which provide micronutrients were too low.

Micronutrients are essential for children's physical growth and mental development and hence their inadequacies may have long term effects in a child's school and intellectual performance; and subsequently to behaviour and productivity at adulthood (UNICEF, 2009). Only 1.3 % children were reported to have taken, in the past 24 hours, foods such as *Tsabana* and fortified maize meal supplied to children < 5 years by government. Sixty percent of the study children survived on only 2 or less meals that are not diverse a day suggesting that the food intake was not very nutritious (Battistini, Malavolti, Poli *et al.*, 2005, Nnyepi *et al.*, 2010).

A supportive feeding environment requires adults' presence during meal times and encourages involvement of family members in setting up a platform for the child to learn healthy eating habits. Although it is expected that children aged two or more years should be able to spoon-feed themselves, it seems there was insufficient adult supervision during meal times with children in this study. Seventy-six percent of the children were fed with minimal supervision. Studies have shown that lack of caregiver involvement during meal times may undermine the quality of food consumed (Shan, 2010) and deny the caregiver the opportunity to model good eating habits (Savage, Fisher & Birch, 2007). It is therefore important that caregivers prioritize childcare during meal times over other household activities.

One of the commendable observations from this study, is that a good proportion (41.3%) of the children were provided with an in between meal snack. There is however, a need to ensure that care is taken to improve the quality of the food items children are fed in between the family's meal times. In particular, effort should be taken not to provide children with refined snacks such as biscuits, potato chips and sweetened concentrated drinks, which may provide energy but be less nutrient dense. When the safety of food left over from a previous meal can be ascertained, leftovers may nutritionally be better options compared to refined food items.

Unsatisfactory growth status was evident amongst children (2–5 years) of molapo farming communities in Tubu, Xobe and Shorobe with prevalences of underweight (19 out of 75 children), stunting (6 out of 75 children), and wasting (22 out of 75 children). There are many factors that could contribute to poor growth status such as poor access to health services, prevalence of infections, and household food insecurity that were not investigated in the study but should not be overlooked. However, insufficient food intake may be an important contributory factor. The higher prevalence of underweight and wasting observed in this study suggests that there may have been inadequacies of essential foods over a shorter (seasonal) period. Underweight and wasting reflect current effects of malnutrition as well as incidences of short term food shortages (BEP, 2010). The communities in which the study children live are in the Northern part of Botswana in the Ngamiland, where there have been high floods since 2010 (Okavango Research Institute (ORI) Database, 2011), resulting in interruptions on farming activities and consequently food insecurity in many households.

Conclusion

In conclusion, non conducive feeding practices and feeding environment of children (2–5 years) in molapo farming communities of Tubu, Xobe, and Shorobe villages may have contributed to poor growth status of children as evidenced by prevalence of underweight, stunting and wasting. The diets of the studied children lacked fruits, vegetables, eggs, fish and legumes. These food groups are essential for providing nutrients supportive of healthy growth and development for the respective lifecycle. Inadequate supervision by caregivers at meal times may predispose children to malnutrition. Feeding practices and environment are more than the simple provision of food to the child to satisfy their hunger but should be conducive to development of healthy feeding skills, food habits and growth.

Recommendation

A home based nutrition education intervention targeting caregivers and emphasizing improvement of child feeding practices and environment as well as incorporating locally available and supplementary food into the meals of the children to improve their nutritive value is highly recommended.

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2 Predictors of household food insecurity and implications for child nutrition

Introduction

Food is a basic right (United Nations, 1948), but many households are struggling to meet their basic food need. The FAO estimates that 925 million people are food insecure worldwide (FAO, 2010). To be considered food secure households must be able to provide their members with enough food at all times (Maxwell and Frankenberger, 1992). Furthermore, the food households provide should be desirable and be nutritionally adequate to enable members to lead healthy and active lives. Food security can be examined at three levels; namely (i) food availability, (ii) access to enough food, and (iii) the utilization of the food by individual members of the households. The household must be able to access (purchase) foods that is available in the market or produce them. It is only when households have adequate access to food that the utilization of the food by individual members and its impact on the nutritional status of members of the household can be examined.

There is significant programming at national level in Botswana to address food availability but the extent to which these translate into improved household food security is yet to be established. A study conducted by UNICEF in 2009 found that a high proportion (75%) of households in Mabutsane and Bobirwa health districts had some degree of food insecurity. The same study also reported that in 29 and 22 percent of households in Mabutsane and Bobirwa district respectively at least one household member went without food the whole day and night at least once in the past 30 days. While there are efforts that monitor food insecurity at national level in Botswana, little has been done to investigate factors determining food insecurity at household level. But as Bahigwa (1999) puts it 'a threat to household food security ultimately threatens national food security' (p.3). In this article, therefore, the authors examine the determinants of households' ability to access food and its implications on child nutrition using data collected in 2009 at Mabutsane and Bobirwa health districts.

Methodology

Household Food Security Access Scores and Socio Economic Status dataset for Mabutsane and Bobirwa collected in 2009 (UNICEF, 2010) were used. The choice of these two districts are articulated in the report (UNICEF, 2009) and had to do with the difference in the districts poverty ranking and children's nutritional status. This dataset had observations from 742 households, obtained using a systematic sampling approach. In each district three villages (small, medium and large) were selected with population as a measure of size. Each household had household's food insecurity scores, which were obtained using the Household Food Insecurity Access Scale (HFIAS) by Coates, Swindale, and Blinsky (2006). The scale had questions which helped establish whether household members were ever anxious (during the 30 days prior to the survey) about the adequacy of their food supply or ever had to eat food of insufficient quantity or quality due to shortages of food as well as the severity (frequency) of such experiences. The household food insecurity scores were obtained by summing all the scores for anxiety about food supply, sufficiency and quality. The higher the score the more food insecure the household.

Model specification

To examine the predictors of household food security, we specified an Ordinary Least Square regression model, as in equation 1, right:

Equation 1

$$1n(\text{HFIAS}) = a_0 + \sum_{i=1}^n a_i X_i + e_i$$

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Where, HFIAS is the Household Food Insecurity Access Scale score, a_0 is the constant term, a_i is the coefficient, X_i represents explanatory variables and e_i is the error term. The variables used in the model and their definitions are presented in Table 1. The choice of these variables was informed by the findings of studies done in other countries (Rahim *et al.*, 2011; Bogale and Shimelis, 2009; Pankomera *et al.*, 2009).

Table 1 Variable definition

Variables	Definition
HFIAS	Total household food insecurity score
HHSZ	Number of people in the household
AGEH	Age of the head of household in completed years
Gender	Gender of the household head: 1= male, and 0 otherwise
MSTAH	Marital status of the household head: 1 = married and 0 otherwise
EDUPrim	Household head has primary education: 1= yes and 0 otherwise
EDUJCAB	Household head has JC and above: 1= yes and 0 otherwise
Income	Total household income
EMPLOY	Employment status of the household head 1= yes and 0 otherwise

Survey results

Household socio-economic characteristics

The socio-economic characteristics of households in the study are presented in Table A1 (in the annex). As seen from the table, most households (49%) were headed by adults without formal education, followed by those with seven years of formal education (STD 7; (30.5%). About 13 percent of heads of households had junior certificate; equivalent of 9 years of formal education.

Households were generally large with an average of 7 members per household compared to four at national level (CSO, 2008). About 45 percent of household heads were single followed by those who were married and this is consistent with the picture observed at national level (CSO, 2004). A small proportion of heads of households fell into the categories of divorced or separated. About 68 percent of the heads of households were not employed and 21 percent employed.

As for sources of energy for lighting and cooking, most households tended to use paraffin, candles and open fire. Gas and electricity were used by very few households. In Mabutsane 55.9% of households used paraffin lamps. Candles were the second most common form of household lighting. The use of electricity for lighting and cooking was reported more in Bobirwa than in Mabutsane district. This may suggest that households in Bobirwa district were economically better than their Mabutsane counterparts especially given the higher costs of acquisition and sustainable use of electricity. The same observation was made with regard to sources of energy for cooking. About 92 percent of Mabutsane households used wood energy for cooking compared to 83 percent in Bobirwa, while 9 percent of households used gas in Bobirwa compared to 5 percent in Mabutsane. Standpipes (within and outside the plots) were the most common source of safe water for the households.

Income

Respondents were asked to rank the top three income sources in decreasing order of importance for the month preceding the survey. This approach was preferred because it

offers households the opportunity to provide details about the perceived relative importance of each income source. Households were asked to consider the following income sources; salary (or paid employment), business, pension of retired persons, livestock sales, crop sales, remittances and government transfers. As also evident from Table 2 that salary was ranked the most important source of income by the majority (30%) of the respondents followed by remittances (21.5%) and Government transfers (19.5%). Surprisingly, livestock and crop sales were not ranked amongst the top 3 most important income source by most households. This observation may suggest that these two agricultural sources of income featured less prominently in the economic activities of respondents in this study. What is particularly surprising about this observation is that government promotes and subsidizes agricultural activities. Pension of retired persons was ranked first by the lowest proportion of households in this study. More households in Mabutsane ranked Government transfers (23.6%) than those in Bobirwa (12.9%). In all other socially desirable means of livelihoods, except in short term job, households in Mabutsane fared worse than Bobirwa.

Extent of household food insecurity

When asked to rank their most important source of food, most households in both districts (86% in Mabutsane and 63% in Bobirwa) ranked government transfers (assistance) as the most important source of food. Moreover, 28 percent of households in Bobirwa sourced food through their own production while the rate stood at 24 percent for Mabutsane households. However, about 61 percent of households indicated that their food did not last as they had expected. Some households reported having requested from others (27 percent), borrowed money to buy (8.7 percent) when their food ran out. About 8.1 percent of households waited for month end to acquire food. Although reported in fewer households (0.3%), some households indicated that some of their members ate outside their homes (from neighbours, relatives) when there was no food at home.

Table 2, right, presents descriptive statistics of variables under consideration.⁴ The average household food insecurity score is about 6, suggesting presence of food insecurity in the considered households. The average household size stood at 7, which is higher than the observed national average size of 4 members. And the average age of the household heads was about 52 years. The proportion of households headed by married individuals stood at 28 percent. Heads of households with primary education averaged 30 percent while the proportion for those with Junior Certificate (JC) and above is 21 percent. The average household income was P963 while only 32 percent of household heads were employed.

Table 2 Descriptive statistics

Variables	Mean	Standard deviation
HFIAS	5.699	2.8954
HHSZ	7.2342	3.28954
AGEH	51.7255	15.8275
Gender	.4118	.49250
MSTAH	.2840	.45123
EDUPrim	.3042	.46037
EDUJCAB	.2059	.40465
Income	963.79	3902
EMPLOY	.3244	.46845

Source: computed from UNICEF (2010)

Econometric results

Table 3 shows the econometric results. While the considered variables explain a small proportion of about 10 percent of variation in food insecurity, this is expected of cross sectional data (Gujarati, 1995). The F statistic is statistically significant at 1 percent level, which suggests that the considered explanatory variables are statistically significant in explaining the variation in the dependent variable. As seen from the table there is only one variable, GenderH, which is statistically insignificant and similar result was obtained in Kenya (Kaloi, Tayebwa, and Bashaasha, 2005).

4. Some figures in Table 2 differ from those reported earlier since these are averages and some variables have been recoded for the purposes of regression analysis (Refer to Table 1 for the definition of variables).

Table 3 Regression results

Variables	Coefficient	Std. error	T	Significance
HHSZ	.087	0.032	2.406	0.000***
AGEH	-.172	.008	-4.003	0.000***
GenderH	.039	.311	.727	0.467 ^{NS}
MarriedH	-.119	.347	-2.190	0.029**
EDUPrimary	-.075	.253	-1.852	0.064*
EDUJC & above	-.208	.310	-4.752	0.000***
Income	-.139	.000	-3.905	0.001***
EMPLOY	-.172	.226	-4.648	0.000***
Constant		.510	15.267	0.000***
R ² =0.125				
Adjusted R ² =0.115				
F=12.764				0.000

***significant at 1 percent, **significant at 5 percent, *significant at 10 percent, NS=not significant

Household Size (HHSZ): This variable is significant (P=0.000) in determining household food insecurity. With a positive sign and coefficient of 0.087, this suggests that an increase in household size by one member will increase the food insecurity score by 9 percent. Thus, the household food requirement increases with an increasing household size. This confirms results obtained in Malawi (Pankomera, Houssou, Zeller, 2009), Ethiopia (Bogale and Shimelis, 2009), and Tanzania (Mmari, Hawass, and Kinyashi, 2010). The results suggest that an increase in household members may mean an increase in the number of dependents, resulting in reduced per capita consumption, and hence the risk of food insecurity. This is consistent with observations from another study in Botswana which reported higher poverty incidence among larger household sizes (CSO, 2008). A study by Lekobane and Seleka (2011) also

found that large household sizes reduced the probability of participating in arable agriculture (i.e. food production). It may therefore follow that such households will have larger score of food insecurity.

Age of the household head (AGEH): This variable is also significant (P=0.000) in explaining the variation in household food security. However, the coefficient carries a negative sign implying an inverse relationship between age of the household head and food insecurity score. Thus, as the age of the household head increases, household's chances of food insecurity reduces. One of the explanations could be that agricultural production in Botswana has generally been found to be dominated by the elderly, which forms an important part of their livelihood strategies especially for those residing in rural areas with few economic opportunities. The other possible explanation could be that older people tend to benefit from multiple sources of income such as the Old Age Pension scheme, which targets all individuals aged 65 years and above, remittances from household members who work in towns/cities and in some cases veretans income. Bogale and Shimelis (2009) found similar results in Ethiopia.

Education (EDUH): The education level of the head of household significantly reduces food insecurity. This is seen for both households headed by individuals with primary education (P=0.064) and those with JC and above (P=0.000). Thus, as education level of the household head increases, chances of food insecurity decrease. This could be because education increases the likelihood of employment, which results in increased household income. Households would therefore use income to acquire food and reduce food insecurity. Educated head of households are also likely to allocate their resources better. According to CSO (2008), households headed by educated heads have lower poverty incidence than those headed by uneducated individuals.

Income: As expected, increase in total household income significantly reduces household food insecurity (P=0.000), confirming results found in Ethiopia (Bogale and Shimelis, 2009). Results show that an increase in income by one Pula will reduce food insecurity by about 14 percent. Increased household income enables households to acquire nutritious food for the household, which addresses malnutrition through a diversified diet. This confirms the

economic theory that income influences consumption and is consistent with the use of income in establishing eligibility for some social safety programmes.

Employment status of the household head (EMPLOY): Households headed by employed heads are likely to have a lower food insecurity score ($P=0.000$). Being employed may guarantee household income, which improves households' ability to acquire food. However, employment alone cannot guarantee better nutrition indicators for children. For female heads of households, for example, being employed often reduces the time allocated to child care (Girma and Genebo 2002). This is particularly a concern when income earned cannot secure suitable alternative child care for young children.

Household head married (MarriedH): When the head of the household is married, household food insecurity reduces ($P=0.002$). This confirms results obtained in Kenya, where married couples were likely to be food secure than single headed households (Kaloi *et al.*, 2005). Marital status has been shown to have a bearing on child nutritional status. Marital status of household heads affects the household power to make decisions which have consequences on child nutritional status. A study in Ethiopia by Teller and Yimar (2000) observed that women's nutritional status was associated with their status of marriage. Compared to married women, unmarried women were characterised by poor nutritional status. It therefore follows that if the mother's nutritional status is poor so will be the child's.

Implications of food insecurity for child nutrition

Household food insecurity has implications for child nutritional status. The effect may be directly due to lack of food in the household or indirectly due to less equitable intra-household food allocation. In a study by Cook, Frank, D. Berkowitz, *et al.*, (2004) food insecurity was associated with reduced intakes of important nutrients, behavioral and psychological dysfunction as well as poor health in children (p.1433). Children from food-insecure households were also twice likely to have their health status reported as fair/poor compared to those from food-secure households. Furthermore, children from food-insecure households were more likely to have been hospitalized than their food-secure counterparts. In a study in Bangladesh children from food-insecure households were found to have a higher rate of morbidity than those from food-secure households (Saha, Frongillo, Alam, 2008). The authors also indicate that children from food-insecure households were introduced to cow milk, fruit juices and other liquids earlier than recommended. The same pattern of early introduction of water, sugar and milk was also observed in Botswana (Nnyepi *et al.*, 2010).

Some studies have shown that children from food-insecure households tend to have higher rates of stunting and underweight than those from food secure households. In Colombia for example, children from food insecure households were three times more likely to be underweight as those from food secure households (Hackett, Melagar-Ounonez, Alvarez, 2009).

Association between food insecurity and child nutritional status

In this section we examine whether there were any association between food insecurity and child nutritional status. The indicators used for child nutrition are child Height for Age (HA) measuring stunting, Weight for Age (WA) measuring underweight and Weight for Height (WH) measuring wasting, obtained using the WHO-Anthro program. The association is examined through bivariate analysis. Table 4 shows results for associations between food insecurity and HA, WA and WH respectively.

Table 4 Correlations between HFIAS and child nutrition

		HFIAS
Height-for-Age z scores	Pearson Correlation	- 118***
	Sig. (1 tailed)	.000
Weight-for-Age z scores	Pearson Correlation	-.097***
	Sig. (1 tailed)	0.001
Weight-for-Height z scores	Pearson Correlation	0.027
	Sig.(1 tailed)	0.203

***significant at 1 percent

As seen from the table there is a negative relationship between household food insecurity and height-for-age z scores. Thus, as household food insecurity score increases, likelihood of child stunting also increases. Similarly, more children become underweight as households become food insecure. However, there is no significant relationship between wasting and household food insecurity.

Conclusion and policy implications

This article investigated factors affecting household food insecurity. Regression results have shown that household size increases household food insecurity. This is because increased household size may result in decreased household food per capita consumption leading to food insecurity. Households headed by educated individuals are less likely to be food insecure. Results have shown that this holds for those household heads with primary education and with junior certificate and above. This may be because increased education level increases both ones chances of being employed and earnings. Food insecurity has also been found to be reduced in households headed by married individuals. Household income reduces food insecurity as it enhances acquisition of food for the households. The results have also shown the importance of education in household insecurity.

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Annex: Table A1: Socio-economic characteristics of households in Bobirwa and Mabutsane

		District		Total
		Bobirwa N (%)	Mabutsane N (%)	N (%)
Education level of head of household	No formal education	149 (40.2)	215 (57.8)	364 (49.1)
	STD 7	132 (35.6)	94 (25.3)	226 (30.5)
	Junior Certificate	54 (14.6)	44 (11.8)	98 (13.2)
	Cambridge	18 (4.9)	8 (2.2)	26 (3.5)
	Tertiary	4 (1.8)	1 (0.3)	5 (0.7)
	Other (incomplete primary)	14 (3.8)	10 (2.7)	24 (3.2)
Household size	0–4	65 (17.5)	82 (22.0)	147 (19.8)
	5–9	237 (63.9)	216 (58.1)	453 (61.0)
	10+	69 (18.6)	19 (5.0)	143 (19.2)
Marital status	Married	147 (39.6)	64 (17.2)	211 (28.4)
	Co-habiting	26 (7)	61 (16.4)	87 (11.7)
	Single	130 (35.0)	206 (55.4)	336 (45.2)
	Widowed/not re-married	53 (14.3)	39 (10.5)	92 (12.4)
	Divorced/separated	15 (4.0)	2 (0.6)	17 (2.3)
Employment status of head of household	Employed	101 (27.2)	54 (14.5)	155 (20.9)
	Self-employed	47 (12.7)	39 (10.5)	86 (11.6)
	Not employed	223 (60.1)	279 (75)	502 (67.6)
Household lighting energy	Paraffin	153 (41.4)	208 (55.9)	361 (48.7)
	Electricity	132 (35.7)	22 (5.9)	154 (20.8)
	Candle	79 (21.4)	118 (31.7)	197 (26.5)
	Gas	4 (1.1)	3 (0.8)	7 (0.9)
	Other (firewood, coal,)	2 (0.5)	21 (5.7)	23 (3.1)
Household cooking energy	Wood/fire/charcoal	307 (83)	341 (91.7)	648 (87.3)
	Electricity	23 (6.2)	5 (1.4)	28 (3.8)
	Gas	34 (9.2)	19 (5.1)	53 (7.1)
	Paraffin	3 (0.8)	6 (1.6)	9 (1.2)
	Coal	3 (0.8)	1 (0.3)	4 (0.5)
Source of water	Piped indoor	34 (9.2)	2 (0.5)	36 (4.9)
	Standpipe within the plot	191 (51.6)	181 (48.7)	372 (50.1)
	Standpipe outside the plot	132 (35.7)	140 (37.6)	272 (36.7)
	Borehole	0 (0)	8 (2.2)	8 (1.1)
	Well	0 (0)	1 (0.3)	1 (0.1)
	Other	13 (3.5)	40 (10.8)	53 (7.1)
Most important source of income	Salary	139 (37.5)	69 (18.5)	208 (29.8)
	Remittances	74 (19.9)	76 (20.4)	150 (21.5)
	Government transfers	48 (12.9)	88 (23.6)	136 (19.5)
	Business	48 (12.9)	35 (9.4)	83 (11.9)
	Pension of retired persons	8 (2.2)	3 (0.8)	11 (1.6)
	Livestock sales	13 (3.5)	9 (2.4)	22 (3.1)
	Crop sales	10 (2.7)	7 (1.9)	17 (2.4)
	Short term jobs	29 (7.8)	36 (9.7)	65 (9.3)
	Other	5 (1.3)	2 (0.5)	7 (1.0)

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3 Variations in estimates of child malnutrition and coverage rates of nutrition high impact interventions: Who is right? who suffers?

Introduction

Population projections are used by policymakers, programme managers and stakeholders to inform programming for different services, including nutrition interventions. These projections are a cost effective way of providing estimates of people in different demographic profiles without conducting repeated census surveys. Forecasts can be made at country, regional and global level. These projections are established using models that specify certain assumptions and scenarios about fertility, migration and mortality (Population Reference Bureau, 2001). Population projections are generated by government authorities for their own use and by institutions like The United States Bureau of Census or key international organizations like the United Nations Population Division and, the World Bank. In Botswana Statistics Botswana (formally the Central Statistics Office (CSO)) is responsible for making population projections and it has generated projections up to 2030 using the 2001 census survey data.

These population projections are currently used by national and district health authorities to assess the coverage of several health programmes. Some of these programmes target children under 5 years of age such as the Botswana National Nutrition Surveillance System (BNNSS) and National Vitamin A supplementation and Measles Immunization campaigns. In the Vitamin A supplementation and Measles Immunization campaigns conducted in 2009 for example, the number of children 0–5 years who were reached in some districts and at national level exceeded the number of children expected, as per the CSO projections (MOH, 2009 and UNICEF-WHO, 2009). In short the coverage rates were over 100%. Similarly the coverage of the BNNSS has routinely registered more children than estimated in some health districts (NFCD, 2011). While there are some zoning differences between health districts and administrative districts that may explain unexpectedly high rates at district level, such district variations should average out such that at national level coverage rates do not exceed 100%. The fact that coverage rates at national level exceed 100% is anomalous and consequently raises concern about the accuracy of CSO projections as well as the coverage of programmes that currently rely on population estimates reported in the CSO 2001–2031 projections (CSO, 2005).

Objectives

In this article the authors compared the prevalence of child malnutrition and the performance of selected nutrition high impact intervention in Botswana using CSO and the United Nations population projections for children 0–5 years in Botswana.

Methodology

The authors used population projections for children 0–5 years from Central Statistics Office (CSO, 2005), United States Census Bureau (USCB, 2011) and the United Nations Population Division (United Nations, 2009) between 2001 and 2010 to compare the trends of projected number of children. The actual number of malnourished children and the coverage of selected high impact nutrition initiatives were then compared using the Central Statistics Office and the United Nations Population Division (UNPD) population estimates

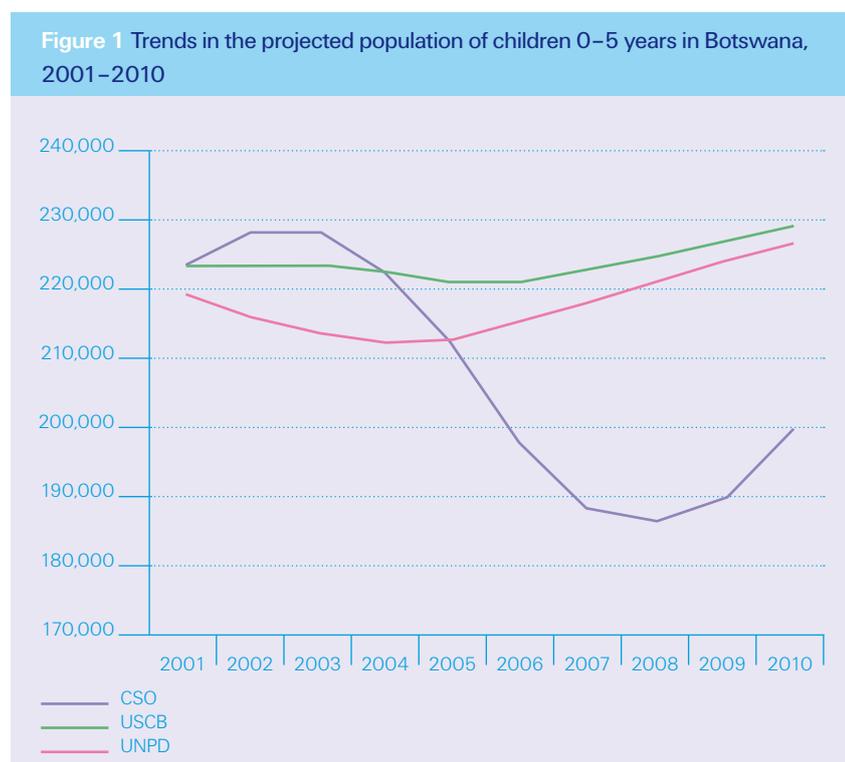
The caseloads of malnourished children (wasted, underweight and stunted) were calculated based on the rates of wasting, underweight and stunting from the 2007 Botswana Family

Health Survey and population projections of children 0–5 years generated by the CSO (CSO, 2005) and UNPD population projections (UNPD, 2009) for Botswana.

Lastly, the authors calculated and compared the coverage of nutrition high impact intervention using the United Nations Population Division projections and the CSO estimates as denominator for vitamin A supplementation (VAS), growth monitoring and supplementary feeding programmes in Botswana.

Results

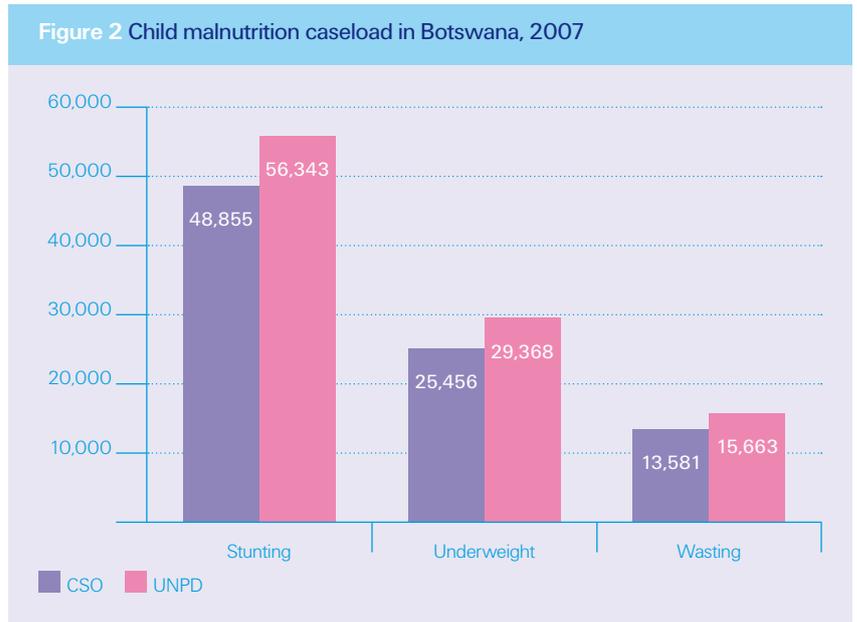
The estimated numbers of children aged 0 to 5 years in Botswana as generated by CSO, the United States Census Bureau (USCB) and UNPD are displayed in Figure 1. As shown the UNPD and USCB projections ranged between 213,871 and 228,697 between 2001 and 2010 whereas CSO projections for the same period ranged from 186,104 and 227,610. There is a marked decline in the under-five population projections from 2003–2004 in CSO estimates, which ebbed in 2008 and increased slightly between 2008 and 2009. On the other hand the USCB and UNPD estimates showed less pronounced changes in the under-five population over the observed period. While differences in the under-five population estimates are likely to be related to the characteristics used in the modeling exercise the differences observed the CSO projections and both the UNPD and USCB from 2006 to 2010 varied by a figure between 17,783 to 37,783 and this variance is too large to be attributed to a reasonable margin of error.



Given the similar trends and difference of less than 2.6% between the USCB and UNPD projections, the authors decided to use only the UNPD projections in the rest of this article.

The probable number (point estimate) of stunted, underweight and wasted under-fives in Botswana in 2007 are displayed in Figure 2. The numbers were calculated using the prevalence of each form of malnutrition from the 2007 Botswana Family Health Survey

Figure 2 Child malnutrition caseload in Botswana, 2007



(CSO, 2009) and the under-five population projections from CSO (CSO, 2005) and UNPD (United Nations, 2009). Consistent with CSO population projections of the under-fives, the caseload or number of malnourished children using CSO estimates are lower when compared to the UNPD estimates for each form of malnutrition.

The attendance rates to the monthly children’s welfare clinic for Growth Monitoring and Promotion (GMP) activities using CSO and UNPD projections from 2002 to 2009 are displayed in Figure 3. As depicted attendance rates of children less than five years using both projections were following similar trends between 2002 and 2005 with a sharp increase

from 2004 to 2005. Thereafter UNPD projection scenario suggested that GMP attendance rates stabilized and ranged from a lower 73.8% in 2008 to a higher 75.9% in 2009 while CSO-based GMP attendance rates suggested increasing rates from 76.8% in 2005 to 89.6% in 2009.

The differences in Growth Monitoring and Promotion attendance rates displayed in Figure 3 are also reflected in Figure 4, where the projected numbers of children who were potentially missed/not attending GMP clinics are displayed.

Figure 4 shows great variations in the number of the under-fives who are not attending GMP clinics. CSO projections suggest that the attendance rates have improved between 2005 and 2009 (Figure 3) and the number of the children missed by the system has correspondingly reduced from 49,310 to 19,763. In contrast, however, UNPD projections suggest that the number of children missed by the system has remained high and ranged between 50,944 and 58,165 within the same time period. If in fact this is true, this is cause

Figure 3 Trends in Growth Monitoring and Promotion attendance rates using CSO and UNPD projections, 2002–2009

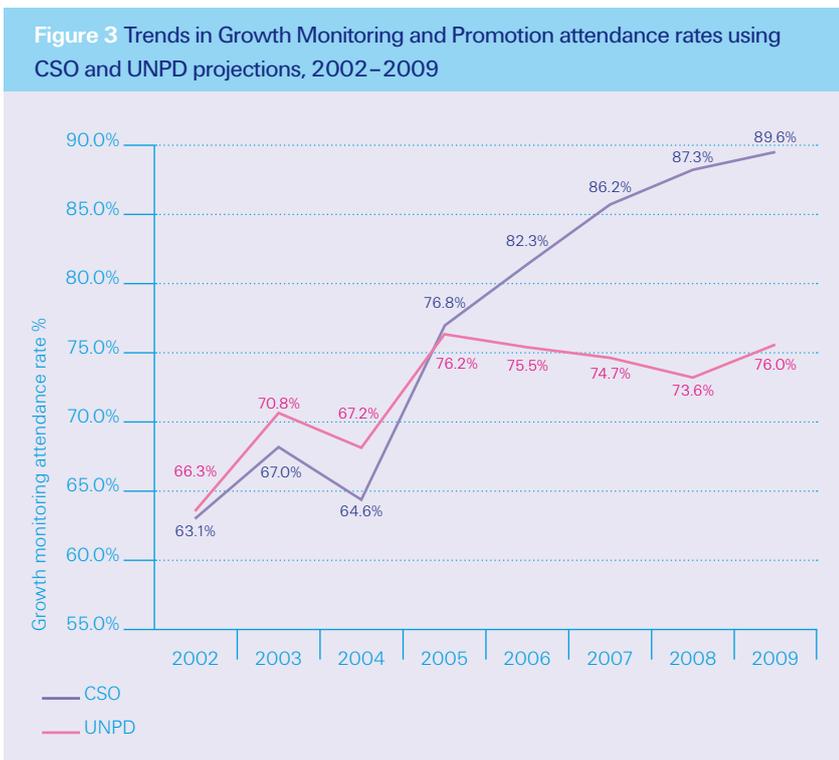


Figure 4 Trends of children not attending Growth Monitoring and Promotion clinics, 2002–2009



for concern because children missed out by the system do not benefit from the Growth Monitoring and Promotion programme, its monthly supplementary feeding ration and are also therefore at risk for developing malnutrition. These children are also likely to miss immunizations, since the GMP and the immunization programmes are linked.

Figure 5 shows population-based coverage of vitamin A supplementation (VAS) for children 6–59 months old in 2009 and 2010 according to the CSO and UNPD population estimates. Consistent with the lower CSO projections (as shown in figure 1), VAS coverage was

Figure 5 Vitamin A Supplementation coverage for children 6–59 months old, 2009–2010



consistently higher compared to the coverage based on the UNPD population projections. The differences in the coverage based on the two projections go up to 31 percentage points.

Discussion

In Botswana, population projections compiled by CSO serve as a reference for various programmes including health and nutrition programmes. The findings presented in this article shows large differences in the projections generated by CSO and UNPD of the under-fives between 2001 and 2010 – especially from 2006 to 2010. Large differences are also observed in the coverage of nutrition high impact interventions and in the number of malnourished children in the country. These differences raise several questions. The first being, which projections provide the most real estimates of the under-fives? The second question is about the implications of the differences in under-five projections on programming (planning, design, monitoring and evaluation) nutrition interventions in the country at different levels (national and districts).

If CSO projections are more realistic then programme coverage derived from them give policy makers and programme managers an accurate picture of overall good programme, provided that coverage rates of above 100% are resolved. But on the contrary if the actual number of the under-fives in Botswana is closer to the UNPD projections then more children are suffering from malnutrition, and/or are not reached by key nutrition and health high impact interventions. This would pose a threat to infant and young child survival in the country. Further, this would suggest the need to improve and accelerate high impact health and nutrition programmes for children because children not reached by programmes such as the vitamin A supplementation are at risk for malnutrition and morbidity (Berger *et al.*, 2007). Failure to reach most of these children is likely to undermine the government and partners' effort to improve equitable access to health and nutrition interventions (UNICEF 2010).

Deriving population projections requires that one formulates assumptions and draw multiple projection scenarios that takes into account fertility, migration and mortality (Population Reference Bureau, 2001). Lower population projections generated by CSO for children 0–5 years in Botswana may be due to use of scenarios that built in excessive adult and child mortality that were anticipated due to Human Immunodeficiency Virus/Acquired Immuno-Deficiency Syndrome (HIV/AIDS) at the time when the HIV pandemic was at its peak and when Prevention of Mother To Child Transmission of HIV and antiretroviral programmes were not yet at scale in Botswana. This is likely to have happened because the projections were last generated shortly after the 2001 Census. It should be noted that at that time it was reasonable to assume that the demographic and health impacts of the HIV pandemic would be a slow or cessation of population growth (due to excessive mortality) and reduced life expectancy. In fact at the peak of the HIV/AIDS pandemic the life expectancy in many Southern African countries like Botswana, South Africa and Lesotho fell drastically (Ashford, 2006). Moreover data on the impact of AIDS on the mortality of children under five in selected sub Saharan African countries from 2002 to 2005 were excessively high among children under-fives (UNICEF, 2005; CSO, 2005).

While CSO produces long range population projections (25 years and more) for planning purposes (– food, housing, agricultural resources) (CSO, 2009), long range population projections are likely to be erroneous due to the uncertainty of the stability of the scenarios over time (Radnoti, 2005). The global UNPD population projections on the other hand are reviewed every two years (United Nations, 2004) enabling the agency to review the scenarios accordingly. The Use of population projections made over shorter time periods

therefore are more likely to reflect more accurate progress on maternal and child survival programmes. This might have contributed to lesser downward trends of under-fives mortality between 2001 and 2010 (Figure 1).

While the authors cannot respond to questions such as which of these projections is accurate, they can and do want to raise awareness about the implications of erroneously low or high projections on resource allocation processes and priority given to health and nutrition programmes so that children are not negatively affected.

From the operational side of health and nutrition interventions variations in projections and coverage rates observed in this article emphasize the need for programmes to consider a combination of sound strategies for planning and targeting programmes. One such strategy is the use of health facilities or district level attendance registers and/or enrolment registers to estimate programme coverage rates (NFCD, 2009) rather than relying solely on long-term population projections.

Conclusion

When national population projections differ from other reputable projections, it is recommended that triangulation of population estimates be used to minimize errors inherent in the use of single population projections. Interim revision of projections is also recommended as it is likely to reduce the challenges posed by long-range projections. In light of these variations, the Botswana 2011 Population and Housing Census could not have been planned at a more opportune time. It is expected that the census findings will update the under-five population estimates and certainly reflect a more accurate picture of both the under-five population and programme performance indicators for future use, at least in the short term depending on the frequency of projection reviews.

Who is right? Who suffers? The authors argue that responses to these questions should be considered more broadly. Being right therefore should not focus only on numbers *per se*, but the focus should be on the implementation of quality nutrition interventions for women and children and in ensuring that such programmes consistently reach women and children in difficult to reach areas. Thus the right estimates are only profitable to the extent that they feed into programme monitoring and evaluation and facilitate the reduction of gaps between clients who are reached and those who are missed by programmes. The right estimates should help reduce the gap between those who suffer and those who do not. When this gap remains large and illusive, then pregnant women and young children will continue to suffer. In a country with more than 84% of the population living within a 5 kilometers radius from the nearest health facility (MOH, 2009) it should be possible to improve the coverage of nutrition high impact interventions significantly.

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4 Experiences and challenges of parents caring for diabetic children

Background

Diabetes is one of the most common chronic diseases in the world and there is increasing evidence that the incidence of diabetes in Botswana is on the rise. In 2006, Botswana had 648 diabetic children of ages 0–14 years (International Diabetes Federation, 2006). Diabetes is a condition when an individual is unable to regulate blood glucose effectively. The glucose accumulates in the bloodstream, where it gradually damages blood vessels and nerves and consequently impairs normal functioning of the vital organs such as kidneys, eyes and nerves. There is no cure for diabetes, but it can be managed successfully. Diabetes care is a 24-hour-a-day effort, and by establishing good self-care routines one can prevent/delay complications.

The real challenge of managing diabetes is greater for the parents of younger diabetic children. Younger diabetic children may need more significant parental involvement in order to develop self-care skills. To achieve this, the parents of diabetic children have to be knowledgeable, patient, strong and supportive. Few studies have examined the challenges faced by parents even though it is widely accepted that childhood diabetes affects the entire family (Wysocki, Greco, and Buckloh, 2003). Few studies that have tried to examine the stress level of parents associated with caring of young diabetic children were often restricted by the lack of suitable instruments (Hatton, Canam, Thorne *et al.*, 1995). The majority of behavioral research within childhood diabetes has focused on children's adjustment to, and coping with, the illness rather than the effect of care of diabetes on the children's parents (Kovacs, Goldston, Obrosky *et al.*, 1997).

Parental involvement in diabetes management has consistently been viewed as an important determinant of positive child-health outcomes (La Greca, Auslander, Greco *et al.*, 1995). Despite that research indicates positive associations between parental responsibility and children's health outcomes (Ingersoll, Orr, Herrold, *et al.*, 1986, Anderson, Ho, Brackett, 1997) it is possible that parents with increased responsibility in their child's daily illness management will experience increased stress frequency and difficulty.

However, most studies on parents' experiences of diabetic children are limited to overall parenting stress rather than on stress experienced by parents due to the illness of their children (Streisand and Tercyak, 2004). Thus, this explorative qualitative study was carried out to examine the parents' experiences, and ability to support and nurture self-care skills in diabetic children as well as their perceptions of care related stress.

Methodology

The study was conducted in Gaborone due to financial and time constraints. Data were collected from a purposively selected sample of parents/caregivers of diabetic children of ages 5–14 years. Participants were reached through their health care providers and meetings for diabetic children and their parents. Twenty one (21) parents or caregivers of diabetic children were interviewed. The interview guide had questions on the parent's experiences, knowledge about core elements of diabetes such as blood glucose (BG) level (normal BG range, hypoglycemia & hyperglycemia), calculating and administering insulin dosage, quality and quantity of food, physical exercise, stress management and development of self care skills in managing children's diabetes regimens. This being an explorative study, the authors used descriptive statistics to determine frequencies of occurrences of selected variables,

such as parents level of education, sources of information about diabetes, frequency of experiences of hypoglycaemia, number of visits to health providers/ diabetes educators, just to name a few. In addition, the authors used thematic approaches to identify and summarize common perceptions and experiences in the home that were related to the care of the diabetic children.

Findings

Parents' experiences and knowledge of core elements of Diabetes

Eighty-one percent (81%) of the caregivers were degree holders and 19% were primary school leavers. Only 5% of caregivers were not formally employed. Most parents reported that they became aware of diabetes following their children's diabetes diagnosis. Therefore, the doctor who diagnosed the children was in most cases the main source of diabetes information for parents. Other sources of information were booklets, TV shows, workshops organised by diabetes educators (whom the parents were referred to by the doctors) and the internet. Sixty percent (60%) of parents mentioned that they 'Googled' diabetes and also encouraged their children to read more on diabetes.

All parents interviewed for the study confirmed that they found it extremely essential to keep updated with the latest information and practices in the field of diabetes. Their awareness about the factors that influence blood glucose (BG) was good as all the parents/caregivers managed to correctly list the factors that influence blood glucose.

The majority of parents reported that they took advantage of their children's diabetes to change and adopt healthy lifestyles. The whole family adopted healthy eating habits which included both careful observance of the quality and quantity of food served. Families also reported paying particular attention to factors that influence blood glucose levels (60%) such as stress (45%), and lack of or increased physical activity (30%). Other factors that parents reported they observed carefully were children's illnesses that might affect diabetes care such as headaches, coughs, as well as use of medications. Parents also reported that they paid particular attention to their lifestyle and tried hard to adhere to healthy eating habits (80%).

Parents generally followed guidelines provided by the doctors and monitored blood glucose on a regular basis. Sixty percent (60%) of the parents reported that their children had not experienced any episode of hypoglycemia since diagnosis, while out of the 40% of the sample who mentioned the occurrence of hypoglycemia in their children, most reported that they sought medical care, while 5% reported that they managed to attend to the children at home.

Fifty percent (50%) of parents visited the diabetes educator every month, 20% every 2-3 months, 20% met the diabetes educator only when they needed assistance and 5% visited only when they were invited to diabetes workshops or talks. Five percent (5%) did not visit the diabetes educator at all. Almost all parents who consulted the diabetes educators did so with their children. Twenty percent (20%) also mentioned that they had called the diabetes educator at least once at odd times in situations when blood glucose levels were too high or too low.

Feelings of anxiety were common among the respondents (40%) and many feared leaving children by themselves. Forty percent (40%) did not anticipate any harm when they were not around the children, however, they did not leave the children alone when the children were unwell, had high blood glucose or below normal blood glucose. The fear/anxiety caregivers reported was proportional to the children's blood glucose levels. Parents reported

that they were more anxious when BG was below or above normal. It was during such times that parents feared to leave the children alone.

The level of understanding and knowledge of parents about diabetes and diabetes management were limited to daily BG monitoring and insulin administration, managing marginally elevated BG with supplementary insulin and acceptance of the need of a disciplined and healthy lifestyle. It was observed fewer parents were confident in managing hypoglycaemia. Only 30% reported that they were confident enough while another 30% said they were 'somewhat confident'.

Parents' efforts towards developing self care skills in their child

In the sampled population the children were trained to administer insulin and test blood glucose at the hospital when the diagnosis was made. The parents reported that the hospital staff demonstrated the procedures (checking BG, administering insulin) to the children (80%). Some parents (12%) felt that some hospital staff were ill equipped and therefore they sought help from the diabetes educators. Eight percent (8%) of caregivers reported they really mastered the techniques at the diabetes camps.

In order to help their children to learn self care skills all the parents surveyed reported that they spent time with their children and discussed many issues about diabetes. Furthermore, the parents had family talks on the issue with other family members such as younger siblings and maids (15%). Issues about food and healthy eating habits were discussed more frequently (60%) followed by regular blood glucose testing (40%), exercise (30%) and management of body weight (20%). It was reported that regular interaction and support of the parents is the main reason why children in the sample population were confident in administering insulin and checking blood glucose independently (80%). Despite parent's involvement there were still some (20%) children who required guidance from the parents to check BG and administer insulin.

Overall, observations in this study suggest that most parents were confident that their children will manage to take care of themselves in their absence. Fewer parents (5%) felt that they needed to be around at the times when the children administer insulin shots or check their blood glucose. Only 20% of the parents were not confident enough to leave their children alone.

The parents also reported that although their children were well equipped with the knowledge of monitoring their clinical condition many of them felt discriminated and emotionally weak to live with diabetes amongst their peers (60%). The feeling of 'unnaturalness' stems from not being included in sports, being asked many questions about diabetes, not being able to eat what others eat at any given time. One parent reported that she was very concerned and often fails to assist her child understand and cope with this discrimination. However, most parents indicated that positive talks and family support helped the children to be confident and participate in most activities along with their peer group.

Stress and coping strategies used by parents

All parents agreed that their lives have changed ever since their children were diagnosed with diabetes. It was traumatic to face the news that their child was afflicted with diabetes. Also, the immense involvement in the day to day management of blood glucose tended to burn them out physically, mentally and emotionally. The clinical condition also affected the financial situation of the family, this added to the stress the family went through. Some

parents/caregivers have taken this as an opportunity to improve their lifestyle by focusing on healthy eating habits and a regular workout routine. Financially this has proved to be a demanding situation. Fifteen percent (15%) of the respondents were highly stressed and mentioned having 'left everything to God'. They reported that some of the information they received about diet and management of diabetes changes regularly. This, they reported stressed and confused them. The changes, they reported, makes it difficult for them to evaluate the correctness of the information they receive. Some stated their difficulty in understanding the reasons for changing from the 'no sugar diet plans' to the 'GI based plans' and the newer emerging concepts of diabetes being more adipocentric than glucocentric.

Caregivers also reported that their stress about all these changes as well as that emanating from the care of their children was eased to an extent by the support of their spouses, who shared the responsibility in managing diabetes (40%). Others (30%) believed that support from their spouses would help reduce the stress that they face. The type of support desired included talking to the children about food choices, managing stable blood glucose levels, checking that the children had taken insulin, and showing love and support.

Sixty percent (60%) of the sample population is part of a Diabetes Support Group and all of them believe that such a homogeneous group boosts their confidence in managing diabetes in their child. According to the parents, such groups promote peer learning and provide an understanding of how others handle stressful situations and resolve crisis. Also, 40% of respondents who were not part of any support group due to reasons of being geographically far from any such facility or other commitments acknowledged that support groups providing diabetes guidance and management could reduce anxiety. They thought the groups could help in keeping one updated with care as well as help break stereotypes and myths about diabetes.

Although caring for diabetic children affected some family's social outings and interactions (50%), some parents felt that there were no major changes in their social behaviour (40%). Those parents who felt changes reported that they have now limited their outings. Many had to cut down on eating outside the home. Others felt that if the children were well informed and then family social outings do not have much impact on the children's blood glucose levels. Such families were more likely to allow their children to go for sleepovers at their friend's house, as long as care was taken to inform the host about special considerations like food choices, insulin and blood glucose testing. These 'special' considerations don't seem to reduce the children's interactions with their peers. This also allows the children to lead normal lives for their age.

Discussion and conclusion

Parents are not only the support structure but also serve as the key role players in helping children with diabetes lead normal lives. They provide emotional strength to the children and this is directly linked to their clinical wellbeing. The more stable the blood glucose the greater the chances that the children will carry out normal routine activities along with peers and the greater his or her self-confidence. The parents' ability to assist their children to be self-reliant with respect to self-care skills in diabetes is an inherent component of the children's growth and transition into other life stages confidently.

Diabetes is a concern especially among parents of young children but with proper intervention and guidance from the health providers most parents and children cope very well. The findings from the general parenting and other pediatric literature suggest that

increased awareness of parents may be related to decreased stress (Kwok & Wong, 2000, and Grus, Lopez-Hernandez, Delamater, 2001). However the challenge may be greater in parents with limited access to resources and support groups.

With regard to parental responsibility for the child's illness management, it is important to note that the medical regimen for diabetes is complex, and recent technology designed to help youngsters to attain near-normal metabolic control has increased this level of complexity even further. As children face more intense regimens at younger ages, more parental involvement will be required. The importance of parental involvement in diabetes care has been demonstrated by the findings that greater parental involvement in blood glucose monitoring is associated with better adherence to blood glucose monitoring, which in turn results in better metabolic control (Anderson *et al.*, 1997). Despite research indicating positive associations between parental responsibility and children's health outcomes (Anderson *et al.*, 1997; Ingersoll *et al.*, 1986; La Greca *et al.*, 1995), it is possible that parents with increased responsibility in their children's daily illness management will experience increased stress frequency and difficulty.

It is recommended that such parents should have access to talks, seminars and workshops organized by support groups. This will assist parents in managing their stress levels, helping them form groups of similar parents where they can share their experiences and gain insights in managing their children better through the process of 'peer learning'. It is also recommended that more volunteer, non-profit organizations like Diabetes Association of Botswana be set up throughout the country to provide support to diabetics and their families.

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In this section of the publication, the authors address issues related to child development in Botswana. There are a number of critical developmental stages that an individual goes through from the moment they are conceived, through to adolescence that determine both their current and future quality of life. Child development, which comprises developments from birth through to adolescence, is therefore critical in enabling a child to meet their full potential. The biological, psychological, emotional and educational developments that a child goes through, require an integrated array of support structures and interventions, of which the family unit is central.

Within the section, the article by Mupedziswa and others examines the importance of a father's involvement in the development of a child. The authors present the views of adolescents regarding the involvement of fathers in their upbringing. The findings suggest that while it is a given that fathers who lived with and supported their children were perceived to have the highest levels of involvement, the level of support availed to children (even where the father was absent) was considered more important than mere physical presence. The section ends with an article by Mthombeni and Fidzani which analyses the extent to which the education system is accessible to and promotes inclusion of children with disabilities. The authors look specifically at the infrastructural barriers at junior secondary school level, and find that the design of current junior secondary schools remains a major barrier to inclusive education.

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5 From the horse's mouth: Views of adolescents in Botswana on father involvement in their upbringing

Introduction

The typical Tswana family like elsewhere in Africa, traditionally consisted of two spouses and their offspring. Mothers had the primary responsibility for not only reproducing historically, but also for raising children. Their roles included minding the home, performing various domestic tasks (including household chores), and more importantly, providing direct childcare. On the other hand, fathering was essentially defined by the father's economic contribution (breadwinning) to the upkeep of the family, although fathers were equally expected to be involved in the socialization and related processes in the lives of their children.

While the traditional role of the Motswana mother in terms of child upbringing was clearly defined, the involvement of the father in this regard remained rather blurred, particularly when they have been physically absent in the children's lives. Given this lack of clarity in terms of father involvement, the critical question that has often been asked is: How have children – particularly adolescents – perceived the involvement of their fathers in their own (i.e. adolescents) upbringing? The article sought to find answers to this crucial question from among the adolescents themselves, as their perceptions could shape the roles that they take as fathers in the near future. The article therefore reports on the findings of an empirical study conducted in Botswana which sought to establish adolescent youths' views on the involvement of their fathers in their own (i.e. adolescents) upbringing.

Background to the study

The subject of fathers' involvement in the lives of their children is steadily emerging as interest in this area of study has continued to grow. For over two decades, authors in both developed and developing countries have identified fathers as contributors to child wellbeing and quality of life (Akinsola & Popovich, 2002: 764; Engle 1997; Maundeni, 2002; Morrell, 2005). For example, in Australia, the University of Newcastle's Family Action Centre established the *Fathers and Families Centre*, whose research, *inter alia*, focuses on the role of fathers in family wellbeing. Similarly, there has been considerable discussion on father involvement in Africa, and much of this has focused on their roles in the family setting (Brown *et. al.*, 2004; Nsamenang, 1987).

Africa in particular, work has included research conducted by Roby and colleagues in Uganda which confirmed the growing pattern of father absence and neglect of the grandchildren by the paternal kin among children whose mothers were HIV positive (Roby, Shaw, Chemonges & Hooley, 2009). This Ugandan study, which focused on children whose mothers attended an outpatient AIDS clinic found, *inter alia*, that only 16% of children lived with and were being supported by their fathers, and that mothers planned to place their children with their own kin, rather than the children's paternal kin, if their health forced them to place their children. However, research in South Africa (Argeseanu, 2007; Timaeus & Boler, 2007), in the context of father involvement was limited to the academic achievement of children. The results of the South African study suggest that the marital status of the parents was positively correlated with the years of schooling finished by a child (Argeseanu, 2007), while being without a mother did not show a correlation to poor outcome in school (Timaeus & Boler, 2007). Other studies done in Africa have explored the perspectives of African men and women about the ideal father and how men can be encouraged to be good fathers (Richter & Morrell, 2008).

A few qualitative studies done on the African continent (Argeseau, 2007; Timaeus, 2007; Richter & Smith, 2006) have asked minors about their views and opinions about the involvement of fathers in their upbringing. Thus, only limited empirical⁵ research has been conducted in sub-Saharan Africa particularly to assess the impact of the changing roles of fathers on child well being in this sub-region. The dearth of empirical data on this subject presents challenges to policy makers given the fact that in sub-Saharan Africa, the HIV and AIDS pandemic has taken a great toll and is leaving children with limited to no father involvement, presence and support. Botswana in particular has had only limited research done on this crucial topic. Furthermore, studies seeking to understand the perspectives of the adolescents is limited to the studies previously listed only. The current study therefore sought to help close this information gap in how adolescents perceived their fathers' involvement in their lives. The country has one of the highest burdens of people living with HIV and AIDS and, according to UN statistics, the highest number of female-headed households in the world (UNICEF, 2007). To this gloomy picture must be added the fact that traditionally there has been fairly heavy out-migration of fathers to South Africa and elsewhere, and hence a disproportionate predominance of female-headed households in the country. Consequently, there has been a call from several authors on the need for empirical research on fathers' impact on child wellbeing in the country (Lesejane, 2006; Richter, 2006; Rabe, 2007; Smit, 2002).

The current study focused on the father-child relationship in terms of co-residence or living apart, the nature and amount of father involvement,⁶ and the mother's support for the father-child relationship or her hindrance of that relationship. It was hypothesized that both living with the father and having him involved in a close relationship would positively influence the wellbeing outcomes for the children. Furthermore, children whose fathers⁷ were involved but did not live with them, would still benefit from the fathers' involvement (especially in terms of education) but to a lesser degree (in the relationship reported and perhaps in other areas); and children whose fathers did not live with them and were not involved in their lives would show the lowest level of involvement.

Methodology

Data were collected from 704 youths aged 14–16 years from 5 locations selected using stratified sampling techniques (stratified on basis of schools, classes, etc) from 14 schools in Gaborone, Ramotswa, Kanye and Molepolole. The study essentially used the Father Presence Questionnaire (Krampe, 2006) and the Children's Hope Scale (Edwards, Lopez & Lopez, 2007) which apparently had not been used in Africa up to that point. Face validity and cultural reliability checks were done in consultation with relevant local research advisors. All the respondents were given a consent letter, and parental consent was sought from the legal guardians of the children. Those who brought back their consent form were then asked to sign an assent form of their own, and were then given the research instrument to fill out in a classroom setting. To protect the identity of the respondents, the information given during the survey was deemed confidential and was only reported as group data with no identifying information.

Research findings

Of the 704 adolescents in the sample, 58% lived with and were supported by their fathers. (These numbers are high compared to other data we found related to female-headed households in Botswana). 20.4% reported that they did not live with their fathers but were financially supported by them. 19.9% reported that they did not live with their fathers and were not supported by them. Only 2% said that they lived with, but were not supported, by their fathers.

5. Previous studies have focused on academic outcomes only (as with Argeseanu and Timaeus), or were qualitative (i.e. non-empirical) in nature. Empirical studies (i.e. systematic data gathering based on quantitative methodology) have not been conducted.

6. The findings section explains the elements that constituted the scale 'father involvement' which was the dependent variable in this study.

7. The researchers actually did ask questions about father figures and will report those in a different paper. Here, the focus is on biological fathers only.

Father involvement was measured by a scale created from three major components that have been used by other researchers: *engagement*, *accessibility*, and *responsibility*.

Items intended to measure *engagement* included in the model were:

- When I need/needed help with something, I go/went to my father before other men.
- My father helps/helped me with schoolwork when I ask (ed).

For measuring *accessibility* the following items were included in the model:

- My father and I enjoy/enjoyed being together.
- My father helped me learn new things.
- My father gives/gave me encouragement.
- I feel/felt my father supports/supported my choices or activities.
- I can/could go to my father for advice or help with a problem.
- My father took part in my traditional rituals and accomplishments.

For measuring *responsibility*, the following questions from the survey were included in the variable:

- My father works/worked hard to support me.
- I feel/felt warm and safe when I am (was) with my father.
- My father has shown concern about my safety.
- My father educated me about safe sexual behavior.

Together, the above 12 variables measured the adolescents' perception of father involvement.

First, we looked at the impact of the father's financial support for the child and living with the child on the adolescents' sense of father involvement. As anticipated, fathers who lived with and supported their children were perceived as having the highest level of involvement.



However, the idea of a father supporting his children (even though he might not be co-residing with the youth) was considered more important in the adolescents' perception (of having an involved father) than his physically living in the same home as the child. Hence, the second group of fathers who had the highest perceived levels of involvement were those fathers who did not live with their children but supported them all the same. Such fathers might have been absent for any number of reasons, including divorce, migration to the mines in South Africa, having another family elsewhere or simply having abandoned the child's mother as the man might not have been ready for either marriage or co-habitation. Not surprisingly, fathers who did not support or live with the children were seen as having the least involvement.

There were no differences by gender: both boy and girl children had similar responses. This is probably because perhaps both boys and girls benefit equally from financial and other support from absent fathers. An equally significant finding was that the number of years that a child lived with their father has a significant impact on how children perceived their father's involvement in their upbringing, with more years correlating with more father involvement. Next, we examined the influence of the mother on the father-child relationship. Mother gate-keeping was measured by asking the adolescents about how much their mothers (1) liked it when the father and child engaged in activities together, (2) appreciated things their father did for them, and (3) made it easy for the father and child to spend time together. Consistent with related literature, mother gate-keeping significantly influenced the child's views with regard to whether or not the adolescent felt his or her father was involved in his/her upbringing. The more the mothers supported the father-child relationship and expressed appreciation for the father, the more the child perceived their fathers to be involved in their (the child's) life. This is not surprising given that mothers tend to play a critical role in the father-child relationship.

Brief discussion and conclusion

From the research findings presented above, it was uncertain as to whether or not father absence is the result of the father himself being purposefully uninvolved or the result of mother gate-keeping and cultural tradition. It is a fact that at times fathers can be perceived as being uninvolved without appreciating fully what their attitudes are towards fatherhood. At times the mother might make it extremely difficult for the father to get involved in the lives of their children as a result of acrimony existing between the two parents. This is a critical aspect for a study of this nature, and yet it is often not easy to establish.

It is common course that a large part of being a father is being in the role of a male provider. For an adolescent, security comes from knowing one is priority to one's father. Hence, if factors such as mother gate-keeping, or father irresponsibility make it difficult for the father to play a role in child upbringing, then this is bound to have a negative impact on the child's perception of his or her father's involvement. In Tswana culture, like in other patriarchal societies in the region and beyond, fathers are expected to play the role of provider; when this does not happen, this might negatively affect the child.

It is of interest that the fathers who co-resided with the youth but did not support them were viewed as less involved than fathers who were physically away but sent financial support for the youth. This serves to reinforce the role of fathers as providers perhaps over their other parenting roles. Emerging research findings suggest that father involvement is a multifaceted concept, often driven by cultural mandates. It is these mandates that tend to shape the perceptions of children on father involvement in their upbringing. The results of the current study suggest that while it is a given that fathers who lived with and supported their children

were perceived to have the highest levels of involvement, the level of support availed to children (even where the father was absent) was considered more important than mere physical presence. This is an interesting finding, which requires further and more thorough interrogation. Questions remain as to whether this finding has cultural connotations. There is therefore a need for further research predicated on the likely cultural impact of maternal caretaking on expectations and attitudes towards fathers in Botswana. Clearer understanding of the role of fathers will be crucial in informing future laws and policies not only in Botswana but in the sub-region and beyond.

Limitations of the study

Like any other piece of empirical work, the current study had a number of limitations. Language and cultural barriers between the principal researchers and the participants was clearly an issue of concern, although the use of local research assistants went some way to obviate this shortcoming. Other than that, there was also the problem of gender balance among the respondents, with almost twice as many girls as boys having brought back the consent form, although gender was not a significant variable in the model. There was also the challenge that the research team received varying levels of support from the administrators in the various schools that participated in the study. In some cases this affected the duration of the survey in the schools, at times resulting in students doing a rushed job of completing the forms. Finally, one of the key variables of the study, that of measuring whether the father lived with the adolescent who did not support them, had only a limited number of responses; however it is unlikely that this has had a significant impact on the findings. In spite of these limitations, the research team is confident that these findings will make a meaningful contribution to literature on the subject of father involvement in child upbringing in Botswana and beyond.

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6 Inclusive education and accessibility of junior secondary school buildings in Botswana

Introduction and background information

The majority of countries have come up with policies which prohibit discrimination based on disability in all institutions and industries. As a result, inclusion of students with disabilities in mainstream schools has been practiced over the years. One of Botswana's Vision 2016 pillars is developing 'an educated and informed nation' which suggests that all Botswana should have an opportunity to be educated (Presidential Task Force, 1997). By extension the pillar includes people with special needs. Although Botswana has made a lot of progress in the provision of inclusive education, especially with regard to curriculum instruction and teacher training, the design and accessibility of school buildings has lagged behind. Schools with programs and facilities to serve children with disabilities tend to be centralized and segregated. This, therefore, has resulted in ill-equipped public schools which are generally unprepared to accommodate and educate students with disabilities.

In 2001, 2.99 percent of the 1,680,863 population of Botswana were people with disability. The school age population was reported to have about 308,595 (2.68 percent) learners with disability (Mukamaambo, Shaibu, & Lesetedi, 2003). Traditionally the needs of children and learners with disabilities have been overlooked in many educational systems. Since the United Nations (UN) Standard Rule on the universal human rights included those with disabilities, governments in most countries looked into issues of equalization and opportunities for all. However, inclusive education should not only concentrate on curriculum, preparing the teachers in working with learners with physical disability, but also considering the physical environment where learning takes place.

Inclusive education system worldwide

Inclusive education involves all learners including those with disabilities given the opportunity to participate fully in all the educational activities (Skidmore, 2004; Tilstone & Rose, 2003). There is need to explain the difference between integration and inclusion because they are normally used interchangeably. Integration means that students should adjust to the requirements or environment of the school. Inclusion means that the school must make adjustments in order to meet the needs of the learners (Brandon, 2006; Chitiyo & Wheeler, 2004).

Swedish International Development Cooperation Agency (SIDA) has supported inclusive education programmes in various countries including Botswana (SIDA, 2003). Although many countries advocate inclusive education, it has been observed that very few have managed to successfully implement the idea. In South Africa, inclusive education system is reported to have brought a lot of challenges when it comes to the learning environment (Engelbrech, Forlin, Eloff, & Swart, 2000). There is need therefore to put more emphasis on the learning environment for successful inclusive education, hence the study.

Inclusive education in Botswana

In 1984, the government of Botswana established a Special Education Unit under the Ministry of Education, now known as the Special Education Division, which is responsible for all administrative services pertaining to children with disabilities. In addition, The Report on the Revised National Policy on Education (RNPE) (1994) has clear recommendations for special education as follows:

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- To ensure that all citizens of Botswana including those with special needs have equality of educational opportunities;
- To prepare children with special needs for social integration, as far as possible, with peers in ordinary schools;
- To ensure a comprehensive assessment that is based on each child's learning needs, and not on group norms, and which is followed by individualized instruction;
- To promote early identification and intervention which will ensure maximum success of the rehabilitation process; and
- To ensure support and active participation of the children's parents and community through an education and information campaign.

The development of the policy has necessitated the implementation of inclusive education programs thus discouraging any forms of discrimination. The recommendations are part of the Botswana long term Vision 2016 and the MDGs. The inclusive schools are meant to help the nation achieve the goals of Vision 2016 pillars 1, 3, and 6 which are also linked to the MDGs 1, 2, 3, and 8. Thus all children should have access to education so that they can be given an opportunity to reach their fullest potential. However, the policy does not clearly address the need to develop accessible school buildings to promote learning and independence by learners with disabilities. This article presents findings and observations made as part of a main study that was carried out to assess Home Economics laboratories for use by learners with disabilities in government owned Junior Secondary Schools. The objective of the study was to evaluate accessibility and explore possible exterior and interior physical barriers of classrooms, buildings, and facilities for learners with physical disabilities, specifically wheelchair users. Accessibility describes a site, building or facility or portion of it that complies with the standards (of a country) and can be approached, entered and used by people who are physically challenged (U.S. Architectural and Transportation Barriers Compliance Board, 1990).

Methods

Fifty junior secondary schools in the South Central Region schools were assessed for accessibility of the school buildings. Government owned schools were considered for their enrollment policy of accommodating all children regardless of their physical ability. A questionnaire and an observation checklist were used to collect data. The questionnaire completed by the schools' principals or schools' deputy principals consisted of questions that covered the type of learners' disabilities in the schools. It was also used to establish if there were teachers with disabilities in the schools.

An accessibility observation checklist was used to observe and assess the common exterior and the interior physical environment. It was divided into the following 4 categories: (a) Entrance (ramps, width, and door handle height) (b) Teaching area (table arrangement, reachability, and lighting) (c) Exterior (pathways, corridor width, ramps) and (d) Circulation. To give depth to the study, informal interviews were conducted with the schools' principals and some teachers to describe challenges faced by students with physical disabilities. Data was analyzed using SPSS computer software version 14.0. Descriptive statistics were employed in interpreting and summarizing data.

Findings

Current number of schools with disabled students.

At the time of the study (2006/07), 54% of the 50 schools that were visited had students with physical disabilities and 46% schools had no students with disability. The most common

disability reported was hearing disabilities (12%). Only 10% of the schools reported students with physical disability with use of crutches and 8% had hand impairment. Five percent (5%) of schools had students with visual disability and the other 5% had students who were wheelchair bound. Others included speech and mental disabilities (14%).

External environment

The exterior environment focused on entrances, ramps, corridor width, and pathways. The main challenge was the lack of ramps for easy access.

Entrances (width, door handles and ramps).

The study found that: 66% of the entrances into the buildings were wide enough to allow learners with disabilities to maneuver wheelchairs; 26% had entrance floors that did not require ramps but majority (74%) required ramps outside the main entrances; most door handles (62%) were placed at the appropriate height of 760-915mm from the floor and the rest were too high for someone on a wheel chair; and 84% of the door opening mechanisms were operable by a wheelchair user.

Ramps, corridors, and pathways

A majority of the schools (90%) had no ramps to access administration blocks, classrooms, laboratories, and pathways in majority of the schools. Only 16% had a corridor width of 900 mm restricting movement and accommodation of traffic during class transfer especially for wheelchair users, while most corridor floors (70%) allowed free movement of wheelchairs and were slip resistant. Generally corridors had good lighting system for visibility. All corridors were open hence availability of good natural lighting.

Internal environment

Teaching area

The study further found that: only 59 % had accessible electric switches and outlets especially reachable from a seated position by wheelchair users; the work table heights in most schools (58%) were not within range for a person in wheelchair to use; and only 42% had appropriate heights; while 94% of the chalkboards could not be lowered for use by a person in a wheelchair.

Circulation

Most laboratories were generally small and crowded, hence limited space for movement by wheelchair users. In ordinary classrooms, movement by wheelchair users was restricted by congestion due to poor organization and arrangement of furniture.

Safety

Results showed that a majority of the floors had slip resistant finish. Fifty eight percent (56%) of the schools had fire extinguishers (most were in the laboratories) and only 38% could be reached from a wheelchair level. All the schools had no smoke detectors. Moreover, teachers, especially in Home Economics laboratories where fire is possible, did not know how to operate the fire extinguishers.

Renovation of buildings to accommodate special needs

Most common buildings and facilities (98%) in the Junior Secondary schools studied were not designed to cater for students with mobility disability. At the time of the study no renovations had been done to cater for students with mobility disability.

Discussion

The findings revealed that only a few junior secondary schools had students with some disability. Although the numbers are very low, these results support Botswana's Educational Policy of 1994 that stated that children with special needs should attend ordinary schools as far as possible by showing that some schools enrolled them. The low numbers could be attributed to uncondusive school environments such as inaccessible school buildings.

Through discussions with school administrators, there were cases of students who withdrew because the schools could not accommodate them. For Botswana to achieve its vision of education for all, it is important to create and design a conducive physical environment that will increase enrollment, enhance abilities, independence, and competencies of students with physical disability.

Inaccessible classrooms and facilities mainly affect or limit choice of school, practical subjects studied, participation in extracurricular and other physical activities. The findings revealed that a number of physical barriers exist which can pose challenges in getting access to the school buildings including facilities such as administration block, cafeteria, library, and classrooms. These include lack of special doors (wide electronic or easy to operate doors), unsuitable flooring level, lack of ramps at the entrance, no hard flooring connecting building for easy access by wheelchair users, and stairs. Some of the junior secondary schools have double storey classrooms without elevators making them inaccessible to students on wheelchairs. There is also a need to accommodate all the students by making playground space and toilets accessible (Prosser & Loxley, 2007).

Poorly designed infrastructure can actually frustrate students with mobility challenges as they may arrive late for class or experience difficulty to carry out normal school activities because they may need more time and assistance to navigate around the school. An inaccessible school environment also restricts social interactions. A similar study conducted in Swedish schools by Hemmingson and Borell (2002), revealed that two-thirds of the students experienced barriers to participation in physical and social environment.

All learners need some level of independence within the school set up. Adaptation of buildings for mobility issues need to be addressed in order to increase learners' self-sufficiency as they perform their daily activities within the school (Miles, 2000; Partington, 2003). One of the significant barriers to inclusive schools is reachability of important items such as door handles, switches, outlets, chalkboards, high tables in laboratories, items in the laboratories and libraries etc. These items need to be at a level that can be reached by all students especially wheelchair users. A study carried out by Fidzani and Mthombeni (2010) in Botswana's junior secondary schools revealed that a significant number of Home Economics equipment (sinks, cabinetry, and stoves) and facilities were not reachable by those on wheelchairs.

Another aspect of the learning environment is adequate circulation space for students who use mobility aids such as wheelchairs, crutches, or walkers. Generally, classrooms, especially laboratories, were crowded and had no space to maneuver a wheelchair. This scenario, which was also noted by most researchers, has been due to large numbers of students, lots of furniture and bags on the floor (Miles, 2000; Muthukrishna, 2000). Mberengwa and Silo (2005) also found that Home Economics Laboratories in Junior Secondary School in Botswana were generally small and crowded, hence providing limited space for movement by wheelchair users. Flexible furniture and equipment (adjustable chalkboards, chairs, tables etc.) in classrooms is an important indicator of inclusive practice.

In Botswana, specialized schools for students with disabilities are common at primary school level and less at secondary and tertiary level. This raises the concern and question of whether or not the secondary level is equipped to absorb and accommodate all students who leave primary school. At the same time, there is a need for further research to determine if the specialized schools are structurally designed to accommodate all users to promote learning. For students to achieve full participation, the school environment must meet the following criteria (Rostron & Fordham, 1996): accessibility (or usability); ease of circulation (space and traffic patterns should enhance the 3 C of comfort, convenience, and contentment or choice); human energy conservation or low maintenance, promote communication (through sensory means (e.g. tactile) and social interaction); safety; and security.

Recommendations

Based on the findings the following recommendations about the design of the buildings are made:

- Ramps should be erected in common buildings (e.g. administration building, toilets, play grounds, dining halls etc) must be compulsory.
- Level and paved pathways between common buildings or facilities must be provided for independence and easy movement between classes or activities.
- Wide doors, easy to operate and reachable door handles must be provided in all entrances.
- Laboratories for practical subjects (e.g. Home Economics and Sciences), must be designed so that there is provision of units and working areas that cater for learners with disability (e.g. reachable working table heights from a seated position).
- The use of technology (e.g. automated doors, adjustable blackboards, adjustable shelving, etc.) to assist students (and possibly teachers) with disabilities should be well thought of and be in the initial plan of the buildings and facilities.
- The government should ensure that all those involved in the design and construction of school buildings and other stakeholders are aware of disability policies to ensure that accessibility requirements are always achieved.

A recommended approach for inclusive school environment

Although the National Report on the Development of Education (2008) on inclusive education addresses adaptation and modification of some existing school buildings, there are no clear criteria to use in selecting schools to modify. There is no indication of a model followed in making necessary modifications, hence in addition to the above recommendations, we advocate for collaborative support in creating accessible schools buildings for successful implementation of an inclusive education system.

For successful inclusion to occur government, through all relevant ministries and professionals, need to put in place proper structures and equipment that will incorporate and achieve accessible school buildings and facilities. School administrators should be encouraged to identify and monitor all the needs of the learners with disabilities and recommend necessary renovations to be made to relevant authorities. In addition, learners with disability must be consulted at the planning or renovation stages of buildings to understand and meet their specific needs. Furthermore, parents and communities at large should also play a role in providing conducive learning environment for all learners within the communities. Lastly, researches should be conducted that will explore the general accessibility of all spaces in schools such as sports ground, all laboratories, classrooms, toilets, offices and other facilities in schools for learners with other types disabilities.

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Conclusion

Although inclusive education has been positively accepted by many countries, including Botswana, designing and adapting school buildings and facilities to create barrier-free learning environments for students with disability still remains a challenge. Generally, majority of the junior schools were found not adequately designed to cater for students with physical disabilities especially wheelchair users. Most of the schools were unprepared, not well equipped, and had no proper facilities to support inclusive education. The classrooms, outdoor corridors, and outdoor environments were generally not accessible because of lack of ramps. Common challenges which affect provision of conducive teaching and learning environment such as adaptation of buildings and facilities, specialized equipment and furniture must be addressed for successful inclusion. Well designed school buildings allow for flexible choice of subjects (especially practical subjects), independence and effective learning. To promote inclusive practices in schools, government, educators, designers, parents, communities and students should all work together to create a conducive learning environment for all learners to reach their fullest potential.

Child Protection



The focus in this section of the publication is child protection. Preventing and responding to violence, exploitation and abuse against children requires a harmonised policy and programming environment that is sensitive to the age and gender specific needs of children. There are several barriers to child protection at all levels of society, many of which require aggressive advocacy and sensitisation of the community. While violations of children's rights to protection are part of human rights violations, these violations take place in every country and are often gruesome.⁸ Unfortunately, they are often under-recognized and under-reported. For these reasons they remain significant barriers to child survival and development.

The next three articles in this section cover child protection issues relating to HIV and AIDS, child labour and infanticide. Emmanuel and others discuss child protection challenges that exist in the context of a high HIV prevalence country like Botswana. The authors argue that despite recent legal and legislative reforms, there are diverse, interrelated and numerous child protection challenges in Botswana which tend to increase the risk and vulnerability of children to HIV infection, which call for enhanced coordination and service delivery capacity building. In the next article Warner and colleagues provide an analysis of the extent of child labour in Botswana. The authors find that although child labour is not rampant, there are vulnerable groups of children who suffer child labour, giving rise to the need for development of a comprehensive, integrated and child-aware social development policy framework. The section ends with an article by Modie-Moroka, which highlights the increasing incidences of infanticide, baby-dumping and abandonment in Botswana. The author identifies a number of risk factors- such as poverty, low education attainment, teenage mothers, pregnancy resulting from sexual exploitation, emotional immaturity and insufficient social support – contributing to the situation and calls for an array of interventions to mitigate the problem. She concludes by emphasising the need for good policy and enhanced data collection and research in this area.

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7 Child protection issues in HIV and AIDS burdened countries: The case of Botswana

Introduction

The HIV and AIDS epidemic has had grievous consequences for the full realization of the rights of children worldwide. Regardless of Botswana's strong economic growth record, prominent challenges have arisen over the last two decades that threaten to unravel its past successes. One of such challenges is the scourge of HIV and AIDS. The AIDS pandemic is shattering children's lives and reversing progress that has been made on children's rights. About 44% of Botswana's 1.8 million people are children below 18 years. With a population-based HIV prevalence of 17.6% and 31.8% for antenatal clinic attendees aged 15–49 years (Central Statistics Office – CSO, 2009a; the consequences for children have been considerable. A significantly large proportion of children (93,000) have lost their parents to AIDS than to any other cause of death. As part of the emergency response to the impact of the HIV and AIDS epidemic on children, the Government of Botswana developed the Short Term of Plan of Action for Orphans in 1999. This plan was significant in guiding government's response in mitigating the impact of AIDS on children and vulnerable families through among other things, the provision of food baskets. About 43,000 orphans and 37,000 other vulnerable children receive food coupon/basket and other support from government annually (Department of Social Services – DSS, 2011). Only 31.2% of households with orphans and vulnerable children received free basic external support in 2008 (CSO, 2009a).

Other immediate and remote consequences of the HIV and AIDS epidemic on children are reflected in current statistics on children. Twenty-two percent of all children have lost one or both parents; 25% live with non-biological parents, 40% with grandparents, only 17% of adults are legally married (CSO, 2009b) and 31% of households live below the poverty line (CSO, 2003). In addition to these, a conservative estimate of Botswana's teen ARV needs in 2011 indicates that nearly 4,000 adolescents need ARVs. In addition to medical treatment, these teens need specialized care and support to help them overcome the hurdles of puberty and adolescence (<http://botswanateenclub.wordpress.com/adolescentshiv/>). Anecdotal evidence and police statistics all point to the fact that children are at greater risk and vulnerability to abuse, exploitation and HIV infection.

Although these challenges may seem daunting for children, government responses to the issues have been phenomenal in terms of programming to mitigate the impact on children and vulnerable families. Significant milestones in this direction include the passage of the Children's Act of 2009.

The purpose of this article is three-fold. First, it highlights child protection challenges faced by children in the era of HIV and AIDS. Second, it discusses efforts that are aimed at mitigating the challenges. Lastly, the article makes recommendations for the way forward.

Method

Issues discussed in this article were drawn largely from a baseline study on child protection in Botswana. The study was conducted in 2009. It relied on qualitative research methods. The qualitative methods that were used are: indepth-interviews with 30 stakeholders in the area of child protection in Botswana; key informant interviews with representatives from the Ministries of Education and Skills Development, Labour and Home Affairs, and Ministry of Local Government; the Botswana Police Service, Local Authorities, non-governmental

organizations, community-based organizations, faith-based organizations and chiefs; as well as focus group discussions with 32 school-going children (aged between 11 and 18 years), and 33 parents and/or guardians. Primary data was collected from Gaborone city, Gakuto and Bokaa villages.

The focus group discussions allowed the researchers to hear the voices of children, parents and/or guardians. Children who participated in the focus group discussions were drawn from families with low, middle and upper socio-economic backgrounds. The guardians however were drawn from families of low socio-economic background only because the middle and upper class parents/guardians were not keen to participate in the focus group discussions largely due to work commitments. The focus group discussion guidelines were translated into Setswana to ensure that data were captured appropriately.

Findings and discussion

Children in contemporary Botswana face considerable challenges that will in turn fuel the HIV and AIDS epidemic if they are not addressed. From the findings of the study, these include rape, neglect, severe punishment, child labour, sexual abuse, emotional abuse, property grabbing, alcohol and substance abuse, exposure to domestic violence, intergenerational sexual relations, as well as parents and guardians' inability to adequately meet the social, psychological, moral and spiritual needs of children. However, due to space limitations, only three of the above challenges will be discussed.

Child sexual abuse: Respondents agreed that one of the major child protection challenges that children in contemporary Botswana face is child sexual abuse; and the perpetrators are mostly adults. The cases narrated by participants were mainly eyewitness accounts, for children, and matters of responsibility for professionals. Child molestation cases including incest, rape and defilement were grouped together and discussed as child sexual abuse. The girl child was noted as the most common victim of this type of abuse, although a few respondents recognized that the boy child was also affected. Child sexual abuse in the country is fuelled by several factors. These include: poverty; some HIV positive men's beliefs that it is therapeutic for them to have sex with young girls who are HIV negative (Fergus and Kebafetotse, 1999); as well as beliefs that children should not discuss matters/issues that take place in their families. In situations where the abuse is brought to parents' or guardians' attention, such children sometimes receive negative responses from mothers and other relatives (Maudeni, 2001). Child sexual abuse no doubt places children at risk of HIV infection.

There were concerns expressed with regards to how cases of child sexual abuse are handled. For example, a professional service staff lamented that there are some parents who tend to stand on the way of justice when the perpetrator is the step father of the child. This sentiment is reflected in the below quote:

"We deal with rape, incest, defilement and sexual abuse, but what is disturbing is that we see an increasing number of women or mothers who protect their boyfriends at the expense of their children. I mean some perpetrators of child sexual abuse are step fathers and after the matter is brought to the attention of the police, mothers usually become very angry with the children. Some even threaten their children that if the step father goes to jail, they (the child) would have to provide financial support to the family. This often scares the children into denying that they had ever been abused, thus killing the merits of the case".

Table 1 Botswana Police statistics 2010

Offence	QRT. 1 March	W/drawn	Completed before Court	QRT. 2 June	W/drawn	Completed before Court	QRT. 3 Sept	W/drawn	Completed before Court
Rape	496	131	63	408	176	86	428	132	83
Defilement girls	136	34	12	118	60	34	135	31	25
Indecent assault	51	14	6	43	16	4	35	16	3
Incest	2	—	—	2	—	1	1	2	—

Source: The Daily News, 18 December 2010

The concern is further buttressed in Table 1, above, that shows the number of reported cases that were ever completed before court per quarter in 2010.

Emotional abuse: Children reported cases of emotional abuse in instances where orphaned children are reminded that their parents are dead. A participant in the focus group discussion narrated a tale where three orphans were raised by a woman whom they had known to be their grandmother until one day she told them that their deceased mother was not her biological daughter. Another participant in the same FGD concluded that orphans and vulnerable children do not get the love they need and deserve from the families they live with. Sometimes caregivers are not impressed with orphans' performance in school, especially when they outperform their children. Emotional abuse of orphans can have serious implications for their self esteem both in the short and long-term. Existing literature shows that children with low self-esteem tend to succumb easily to risky sexual behaviour that can expose them to HIV infection.

Drug and substance abuse: This challenge was mentioned largely by chiefs, police officers, social workers as well as guidance and counseling teachers. These professionals reached consensus that the number of children who abuse drugs is increasing in their places of jurisdiction. They associated this trend with the tendency for adults to use children in criminal activities because the latter know that the law is lenient with child offenders. One of the police officers gave several examples of children who upon investigations were found to have engaged in the use and selling of illegal drugs because they were under the influence of adults. The use of illegal drugs may expose children to early sexual activity – a behaviour that puts them at risk of HIV infection. Chiefs who were interviewed lamented the absence of parents and guardians in children's lives. Other adult respondents associated children's involvement in drugs to children tendency to misunderstand the concept of 'children's rights'.

Formal child protection strategies

An array of interventions aimed at enhancing the wellbeing of children in Botswana are being offered by different sectors such as the Social and Community Development Social Workers, the Police and Guidance and Counselling Teachers. Others include interventions by non-government partners such as Ditshwanelo, Lifeline, Childline, Salvation Army Psychosocial Support Initiative, Women's Shelter and the Botswana Christain AIDS Intervention Programme. The strategies used range from provision of counseling, temporary refuge to already affected children, educational campaigns and sensitisation of both children and the general public, legislative advocacy, as well as protection of children involved in legal proceedings. New laws, regulations, frameworks and policies are being currently put in place.

The study noted that unfortunately, almost all the interventions carried out by the various duty bearers have not been rigorously evaluated to determine their successes or otherwise. For example, a social worker with Social and Community Development remarked that although through the counseling of orphans and vulnerable children they aim to keep children off the streets as well as empower them to cope with the challenges they face in general, the goals and objectives are, however, unclear with regard to provision of psychosocial support because more emphasis is placed on material assistance.

“When you talk about the balance score card, the emphasis is on quantity and not quality of services. Again, the reports presented by the Heads of Departments to the Health and Social Committee largely focus on material assistance of tangible needs to clients including children”.

Furthermore, the challenges for monitoring success were again captured by another social worker as presented below.

“There are almost no recent indicators of success. Most of the time, we do not know if we are succeeding or not. That is, there are no ways in which we can know if our services are effective because we hardly do monitoring and follow-ups. We are working under serious time and resource constraints. Without any follow-ups we only have minimal feedback from our clients through minimal home visits since we have transportation problems”.

The school-based initiatives also provide varied services among which is counseling. When teachers were asked about the effectiveness of counseling services they offer, they said that the services were sometimes effective, while at other times they were not. The services were effective when both children and parents were keen to participate in counseling. However, hindering factors include uncooperative parents and children, little time sometimes devoted to counseling; lack of training in counselling; as well as lack of office space which results in the counselling sessions being conducted in the presence of other people. But the teachers also asserted that they provide counseling to children who face numerous, complex and multifaceted challenges. One of the teachers said:

“You know, it is not easy; children nowadays are going through a lot. You can’t believe when I tell you that we occasionally handle cases of children who use illegal drugs. I mean some are so addicted to the extent that when they don’t have money for drugs, they engage in quick sexual intercourse in the school toilets in exchange for drugs. Last year, 2 students were caught doing exactly that...”

Informal child protection strategies

The general consensus among respondents was that by and large informal child protection strategies were not effective in Botswana. Examples were given of families and relatives who abuse the children that they are supposed to protect as well as parents and guardians who neglect the various needs of children. These findings have also been noted in existing literature (c.f. Senau, and Mokgethi, 2009; Maundeni, 2009; Maundeni and Malinga, Forthcoming). The study that this article is based on noted that some adults entice children to engage in criminal activities such as substance abuse. However, there was a glimmer of hope from a father who participated in the focus group discussion and shared his experience thus:

“I became an orphan when I was 8, I never had anyone adult figure who was close to me,

I mean one who communicated with me about various life challenges. It was not easy when I grew up, so after I realized how painful it is for a child to grow up without a close adult figure to support, guide and mentor him, I told myself that I am going to do my best for my children to ensure that their experiences are different from mine...and I have done exactly that...All my children as I speak have grown up to be very responsible people,... The problem with most parents is that they don't guide nor discipline their children until it is too late...".

Obstacles to effective service delivery

Several constraining factors to effective child protection services were identified by respondents. They include inadequate attention given to child protection programmes that focus on prevention; fragmentation and lack of well-coordinated service arrangements; lack of system capacity and limited places of safety to keep children who are at risk. Others include lack of reliable quantitative data as well as limited involvement and participation of children in the design of programmes (Maudeni, 2010); the dual nature of the laws of Botswana; inadequate use of group work approaches as well as inadequate knowledge about children's rights.

Recommendations and conclusion

The article has demonstrated that children in HIV burdened countries such as Botswana face a number of challenges. Therefore, the following recommendations are proposed to address such challenges. There is need to conduct a child protection systems mapping in order to prioritise the interventions strategically to ensure that the rights and wellbeing of children in countries burdened by HIV are realized. In addition, there is need to: improve coordination and capacity building; build a database on child protection and documentation of best practices; and reduce or eliminate fragmentation and unnecessary duplication of services and roles. Hopefully, the accelerated implementation of the Children's Act 2009 will enable the realization of some of these ideals. All the factors that heighten the risk of children to HIV infection and also hinder their smooth transition to adulthood must be addressed in a multi-sectoral manner. As part of the implementation of the Children's Act of 2009, provisions that will facilitate children's access to justice must be accelerated. In addition, advocacy on children's rights must be sustained at all levels in partnership with the media, faith-based organizations and other civil society partners.

It is important to highlight that the study that this article is based on was a small scale qualitative one, therefore, its findings cannot be generalised to the whole population of children in Botswana. Consequently, there is need for large scale studies on child protection issues in Botswana.

In conclusion, there are diverse, interrelated and numerous child protection challenges in Botswana which tend to increase the risk and vulnerability of children to HIV infection. Although there have been significant legal and legislative reforms recently, their implementation would determine the extent to which risk would be minimised and the aspirations of children realised in keeping with the goals of Vision 2016, National Development Plan 10, the Children's Act 2009 and the National Plan of Action for Orphans and Vulnerable Children 2010–2016. The establishment of the National Children's Council is a significant step to the realisation of these goals but it is yet to be seen how effective the Council will be in its pursuits for the full realisation of the rights of children within the context of the impact of HIV and AIDS.

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List of statutes

The Botswana Children's Act No 8 of 2009

8 Botswana's current child labour issue: Where do we stand and where do we go from here?

Introduction

The 2005/06 Labour Force Survey (LFS), performed by the Central Statistics Office of Botswana (CSO), details work and chore related issues for children aged 7–17 (2007).⁹ The extensive survey (interviewing 7,281 children) offers a relatively detailed look at what children are doing in terms of work, chores and attending school. While the results are encouraging for most of Botswana's children, there are a small but significant number of children undertaking long hours in relatively dangerous and exploitative labour activities. Most troubling is the fact that almost half of the identified working children are under Botswana's legal working age of fourteen. When this survey is contrasted to the earlier 1995/96 LFS, some other worrying demographic trends emerge (CSO, 1997). For example, the increase in the number and size of child-headed households (who are, on average, almost three times more likely to be working) also suggests a small but growing vulnerable population. Overall, the survey results indicate that additional research into these at-risk groups is needed.

Use of this 2005/06 LFS survey is an important first step towards identifying children who are most susceptible to exploitative child labour practices. Of course, the goal of reviewing the 2005/06 LFS is to facilitate concrete action towards improving the lives of the vulnerable children identified by the survey. Policymakers need to take a detailed and comprehensive look at child labour issues in Botswana and begin to incorporate them into both current and future social policy. While the Government of Botswana is expressly opposed to child labour, it has not fully articulated what this means in the Botswana context. This suggests problems for specifically identifying child labour and enforcing relevant legislation. This article seeks to raise awareness of child labour problems in Botswana and to provide some basic first steps towards addressing the issues identified.

Defining child labour and reviewing existing legislation

Before going into detail concerning some of the specific findings it is important to have a workable definition of child¹⁰ labour. Put simply, child work refers to any work activities done by children that are not necessarily considered harmful, while child labour refers to work that is hazardous or detrimental to a child's development. Child labour is defined broadly by the Government of Botswana's Children's Act of 2009 as labour that 'place[s] at risk the child's education, physical or mental health, or spiritual, moral or social development or well-being' (para. 24). However, this definition is not quantitatively specific. On the other hand, UNICEF (n.d.) defines child labour based upon age and number of hours of economic work.

Exploitative labour ranges from one hour of work for children 7–11 to 43 hours for children 15–17. Therefore, while the UNICEF definition allows for children 12–13 to work (which Botswana legally forbids) this definition does not include chores or school responsibilities. For the purpose of this article, we assumed that either a child under 14 years working at least one hour or someone between 14–17, who has combined commitments over 50 hours of school, work and chores, to be a child labourer.¹¹ These definitions are somewhat arbitrary and have been determined after limited discussion with local (Botswana) experts on child issues. While the general tenets of child work/child labour are generally accepted, a national debate is merited to quantify the actual number of hours or type of work that constitute child labour in Botswana. From these discussions child work and child labour can then be operationalized at the social policy level.

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9. For a more comprehensive analysis of this data please see UNICEF's Child Work & Child Labour in Botswana (2011). A general analysis of the 1995/96 and 2005/06 Labour Force surveys can be found at http://www.cso.gov.bw/index.php?option=com_content&task=view&id=17&Itemid=33. The data from this survey can be requested by contacting E. Onyadile from the Central Statistics Office in Botswana via Eonyadile@gov.bw

10. Even the operational definition of what is a child can be the subject of debate. For our purposes here we used the generally accepted definition that a child to be seventeen years of age or younger.

11. We also assume that child-headed households are predisposed to child labour and are therefore included here.

Overview of the 2005/06 Labour Study

The 2005/06 LFS represents the most comprehensive quantitative survey of child work and chores¹² in Botswana. It is imperative that evidence from this survey be used in the national debate concerning labour law and child-related policy within Botswana. As the CSO noted when creating this data module for the labour survey:

There is widespread agreement that policy that is 'evidence-based' – i.e. based on facts – is likely to be more effective and better targeted than policy that is not based on hard data. Unfortunately, the very nature of child labour – and, in particular, the fact that it is often done in the privacy of the home or family business rather than in the more public spheres – means that without special studies government will not have good knowledge of its nature and extent and the particular groups of children who are more likely to be involved in different types of work. The child activity survey is therefore intended to provide information on children's work that is not currently available (2008).

The CSO has created a dynamic survey that captures relatively well the difficult and elusive nature of child labour in Botswana. As with all policy issues, child labour policy should be continually informed by data, evidence-based research and systematized qualitative inquiry.

Table 1 outlines general descriptive statistics concerning work and chore activities by gender and geographic location. Above all it should be emphasized and celebrated that, according to the 2005/06 LFS, the majority of Botswana children enjoy high levels of school attendance and acceptable levels of work and chores. On average, Botswana children 7–17 enjoy low levels of work (2.1 hours per week), moderate amount of chores (5.5 hours a week) and high levels of school attendance (enrolment is approximately 93.3%). However, these averages hide the fact that sub-groups disproportionately comprise these averages¹³ of work. For example, even though the average work amount per week for Botswana children is 2.1 hours this hides the fact that over 90% of children do not work. Therefore it is more appropriate to report that, of those children that work, their average is 24 hours a week and that working children are three times more likely to not be enrolled in school. In addition, the survey indicates that approximately eight percent of all Botswana children experience greater than fifty hours of work, chores and school related activities per week. By our working definition, this constitutes child labour. Overall, the 2005/06 LFS survey is relatively positive but it does reveal these smaller groups of vulnerable children.

Botswana's vulnerable child labour problem

The 2005/06 LFS survey reveals several child work/child labour issues that deserve careful attention. Most notable is a relatively small segment of underage children who are working long hours in difficult conditions. In addition, changing demographics over the last decade suggest more children are growing up in households headed by other children.

As mentioned, while the average number of hours worked by all children is only 2.1 hours a week, Table 1 reveals that the average number of hours worked by those actually working is over 24 hours a week. Even more troubling is the fact that many of these workers are younger children. More specifically, approximately 50% of these children are below the age of 14. This is in clear violation of both international and national labour legislation. Perhaps most disturbing is the fact that about 25% of these children identified that they fear that someone might hurt them at work. All of this information suggests that there is a small but significant portion of children who are heavily burdened with a potentially exploitative work situation.

12. There are several interesting gender related and urban/rural issues that emerge from the survey and readers should obtain UNICEF's Child Work and Child Labour for specific analysis.

13. It should be noted that this paper emphasizes total hours rather than work intensity or the relative difficulty of specific jobs. This is done for general analysis purposes and is consistent with most international legislation. Contextualizing the types of work done would create a superior, more nuanced, approach to Botswana's child work/child labour issues.

Table 1 Work/chores done by child respondents.

Characteristics		No	%
Work done in the last 12 months	Total (of all children)	1701	23.4
	Girls (of all girls)	713	19.7
	Boys (of all boys)	988	27.0
Hours/week of work (of average children)	Worked in the last week (of all children)	622	8.5
	Average hours in last week	2.1	
	Urban boys	0.9	
	Urban girls	1.9	
	Urban village boys	1.6	
	Urban village girls	1.2	
	Rural boys	4.0	
	Rural girls	1.8	
Chores done in the last week	Total (of all children)	5544	80.0
	Girls (of all girls)	2924	83.5
	Boys (of all boys)	2620	76.5
Hours/week of chores (of average children)	Average hours in last week	5.5	
	Urban boys	3.3	
	Urban girls	5.0	
	Urban village Boys	4.5	
	Urban village girls	6.6	
	Rural boys	5.5	
Rural girls	6.7		

Botswana Labour Force Survey 2005/06, N=7281 100%

Using the earlier 1995/96 LFS survey, comparisons can be made concerning the changing demographics of children in Botswana's society. As a possible result of HIV and AIDS, more children are not living with their parents an increasing number of children are becoming the head of their own households. On the first point, the household structure for children is shifting away from parents towards grandparents. Between 1995/96 and 2005/06, the number of children aged 7–17 living with at least one parent decreased from 55% to 50%, and the number living with grandparents has increased from less than 18% to more than 21%. Under the broader social protection category of orphans and vulnerable children (OVC), the rise of child-headed households is a cause for great concern. Children heading households that include other children typically represent some of the most vulnerable members of society.

According to LFS estimates (1995/96 to 2005/06), child-headed households have increased from 2% to 3% among children aged 12–17, and the average family size of these households has grown from 1.04 to 3.12. Therefore both the number of child-headed households and the number of individuals living in a child-headed household increased. Social workers and social policy planners need to be made better aware of, and take targeted steps towards providing assistance to, these households.

Solutions

This article identifies seven critical strategic mutually re-enforcing objectives that would facilitate the reduction of child labour practices in Botswana. These six issues include poverty

alleviation, education, policy development, raising civic awareness, capacity building, and additional research. The first two points, reducing poverty and education, are general strategies for reducing child labour and have been the subject of on-going national discussions. The last five are more specific to the issue of child labour. Each will be discussed in turn.

Poverty is considered to be both a symptom and cause of child labour. While Botswana has enjoyed four decades of economic growth, economic growth is slowing and income inequality and rates of poverty remain relatively high. Even though the general rates of poverty have been extensively discussed, little analysis has been paid to the specifics and effects of child-related poverty. Eliminating child labour will require both a closer look at the welfare of a child's entire household as well as national debates concerning poverty-alleviating growth. The best way to combat these issues in the short term is through strategic social protection schemes (similar to Botswana's orphan food basket programme), implemented at the individual and household level. When social protection strategies are incorporated into an integrated national policy, they have the potential to both mitigate the short-term effects of poverty and move towards the longer-term goal of eliminating poverty at the household level. This, in turn, will reduce national poverty, reduce the need for child labour and subsequently increase school enrolment rates. When improvements such as these are accomplished on a large scale, they have the potential to provide a healthier national economy for all citizens of Botswana.

In terms of education, child work and child labour are negatively correlated with school enrolment rates. As stated by a recent Botswana policy document: The approach adopted by the Government for achieving universal primary education is to identify those children who are not in school, find out why they are not attending, and develop specific strategies for bringing them into school (ILO, 2007). Even though causality can be debated (are children working so they are not in school or are they not in school and therefore working?) Botswana working children are over three times more likely to not be attending school than those children not working. Determining how child labour affects educational achievement for groups such as working children enrolled in school as well as drop-out rates could be used to assess the impact of child labour on education.

Building an effective social development programme to combat child labour in Botswana will require increasing awareness at all levels of the government and civil society so that policy makers can create more responsive policy and programmes to deal with child labour. Using the 2005/06 LFS should provide a common starting point for what will be ongoing discussions and potential follow-up research avenues. Before improved law, policy or programme implementation can occur, both decision makers and civil society must learn about the current state of child work and labour in Botswana.

At the level of policy implementation, government employees and non-state actors will often be the public's point of entry to any new child work or labour policy and law. It is essential that these actors are adequately informed and provided with the skills to enforce, interpret and act on the ground with sensitivity and competence; currently the awareness level on child labour is low and this significant knowledge gap results in a severe service gap (ILO, 2007).

Conclusion

Children represent the future of Botswana and their health, education and welfare should be of utmost concern. While it is clear that most children in Botswana enjoy low levels of

work and high levels of school enrolment, there are significant groups of vulnerable children. Most notably are working children under the age of fourteen and child-headed households. These small but vulnerable groups of children identified in the 2005/06 Labour Force Survey deserve careful and pointed attention.

In Botswana, anecdotal evidence will most likely be used against attempts to operationalize the elimination of exploitative child labour arrangements. It is also true there may be cases where the agreed upon definition of excessive is not necessarily accurate for a specific context or child. However, what is of paramount importance is that a definition is determined to protect the majority of at-risk children. Careful research, using expert opinion, local child welfare specialists and accurate data and analysis, must be incorporated into policy formulation and provide a meaningful counterbalance to the occasional contradictory anecdotes. Exceptions to rules are just that and go a long way to undermining legislation that seeks to protect vulnerable children from parents or employers who do not necessarily have a child's best interest at heart. With the Children's Act of 2009 ratified, the next step is to operationalize this act by giving clear definitions of what constitutes these harmful labour practices.

In order to take the first steps towards building a cohesive, integrated and child-aware social development policy framework, defining and operationalizing important terms such as child, work, labour, excessive chores, light work, and hazardous work must take priority. As the CSO has suggested, social policy should be evidence-based. As we have suggested, child labour evidence should be gathered and analyzed in a format conducive to policy formulation. This article seeks to begin the conversation concerning how to eliminate child labour in Botswana.

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9 Infanticide, baby-dumping and abandonment in Botswana: implications for research, policy, and practice

Introduction

Infanticide, baby-dumping and abandonment of children have attracted much attention in the press and child welfare agencies throughout the country over the past several years. Hardly a week goes by in Botswana without a story of baby-dumping, infanticide and abandonment of children. Lifeless infants have been spotted being dragged by dogs, foetuses found blocking flush toilets, desperate cries of infants in pit-latrines, children lying cold by the roadside, and babies being saved from pit latrines covered with human excreta, to name a few. Infanticide and child abandonment are acts that for some time have haunted the modern imagination. It is difficult to establish the incidence of such occurrences in Botswana. Estimates are based upon court records, newspaper reports, hospital records and civil society organizations that may report the information. According to Police Annual Reports, between 2005 and 2010, at least 450 babies have been abandoned or killed in Botswana. Current perspectives, however, do not offer much understanding of these acts and appropriate ways of responding to them at different levels. Perspectives on mothers who commit these acts are broad; some view them as evil, murderous, lacking care, to name a few. While these attitudes have been unrelentingly harsh, there has been little institutional response from the helping professions and the civil society. This article will explore factors associated with infanticide and baby dumping from the perspective of Botswana and further bring together the interrelated issues of unsafe child abandonment and infanticide and move them onto the policy, research and practice agenda.

Defining infanticide, baby-dumping and abandonment

Child abandonment is the act of leaving or deserting of a child on their own without any intention of returning to ensure their safety and wellbeing. Baby dumping entails aspects of some abandonment and involves leaving a child where they may or may not be found by others. Some see abandonment or dumping as an alternative to infanticide. Parents who would otherwise kill their children leave them in an environment that would normally take care of their deaths (Scheper-Hughes, 1994; Wagatsuma, 1983). Mothers who would otherwise kill their children, choose to leave them in an environment where they are likely to die or be picked up by another person who might take responsibility for the child better than they. Infanticide is the causing the death of an infant child. Some babies under the age of 12 months are abandoned in hospitals by their mothers. They are called baby lodgers. These are infants who often remain in the hospital past the due date of medical discharge of the mother and child. The mothers, often after delivery, leave their newborn babies before they are medically cleared for hospital discharge. Some of the mothers do leave the hospital with their newborns but later discard them in public places other than in hospitals, without care or supervision. Research on this population is limited. Currently, data on the number of dumped babies is difficult to estimate. Prevalence figures are determined through media, hospital reports and through the courts or when an infant has been killed or abandoned. Due to the relatively small proportion of mothers who are identified or apprehended after having abandoned their infant, there can be no way of quantifying how big the problem is.

Infanticide in Botswana

Throughout history, infanticide has been common. Anthropological and historical records reveal that infanticide has occurred in human societies since ancient times. According to anthropologist Williamson (1978), infanticide has been practiced in every continent and by

people on every level of cultural complexity, from hunter gatherers to modern civilizations. In foraging and horticultural societies abandonment and infanticide represented a form of population control and to ease the burden of famine, harsh climatic conditions, warfare, and the shame of illegitimacy or non-marital births (Pitt & Bale, 1995; Kottak, 1994). Rather than being an exception, then, it has been the rule. In ancient Europe and Asia, the rule was simply to abandon the infant, leaving him/her to die by exposure through hypothermia, hunger, thirst, or animal attack (Basden, 1996; Boswell, 1984; Milner, 2000; Williamson, 1978). Infant abandonment still occurs in modern societies (Boswell, 1984; Milner, 2000). If a mother died in childbirth among the Ibo people of Nigeria, the newborn was buried alive. The child suffered a similar fate if the father died. In Benin, West Africa, unless a baby is born head first and face upwards, tradition demands that the infant be killed (Basden, 1996).

Factors behind women and girls practicing infanticide, baby-dumping, and abandonment

Whereas both mothers and fathers may be guilty of these acts, on a majority of cases, women are the likely perpetrators (Mark, & Kumar, 1996). Data suggests that women who abandon or kill infants are likely to be young, poor, unmarried, cognitively and emotionally immature, lack positive social support, have limited intelligence or education, have submitted to rather than initiated sex, and are experiencing an unwanted pregnancy (Curran, Bankhead, & Goldberg, 2000; Friedman, Horwitz & Resnick, 2005; Meyer, *et al*, 2001; Oberman, 1996; Overpeck, Brenner, Trumble, Trifiletti, & Berendes, 1998; Modie-Moroka, 2003; Resnick, 1970; Spinelli, 2003). Some of the factors include having had children outside marriage and where the mother is no longer involved in a relationship with the father. The women are often socially isolated, have little or no financial independence. Pregnancy in a culture that finds sexual relations outside of marriage unacceptable contributes to the denial of the pregnancy. Often the mothers come from poor socioeconomic backgrounds, possibly with a history of poor academic performance, substance abuse, psychopathology, and are at risk of potential abuse, abandonment/dumping and dumping their own children (Myors *et al*, 2001).

In addition life experiences associated with poverty such as not attending school, viewing models of unmarried parenthood, unemployment and the lack of educational and career opportunities may lead many adolescents to experience early motherhood. Denial of pregnancy and self-imposed silence and isolation during pregnancy are common features (Drescher-Burke, Krall, & Penick, 2004; Oberman, 1996). A population-based study of deceased newborns aged 4 days or younger who were killed or left to die by a parent found that 20% of the mothers were married, 35% had other children, and more than one half were age 18 years or older (Herman-Giddens, *et al.*, 2003; Kaye, Borenstein, & Donnelly, 1990; Oberman, 1996). In addition, the women are considered to lack problem solving abilities, and adequate coping skills (Drescher-Burke, Krall, & Penick, 2004). Other studies found that women who kill and/or discard their newborns generally had no plans for the birth or care of their children and do not receive prenatal care (Pitt & Bale, 1995).

A study conducted in Botswana by Modie-Moroka (2003) found that the profile of the women who abandoned, concealed or killed their infants was that they were most often poor, single, and under the age of twenty-five. They were often first-time mothers, and most likely immature and inexperienced. They were most likely to have less than high school level of education. They reported physical, sexual and emotional abuse in their family of origin (especially in blended families), and later, in their intimate relationships. They also reported regular drug and alcohol usage at the insistence of boyfriends and an accompanying history of depression, often untreated. A history of abandonment/dumping by the women's

biological fathers and later by the fathers of their children triggers a pattern of discontinuity in their development path. As a result, they are more likely to abandon their children because they neither bonded with their fathers, nor with their own children. Threats of expulsion from school, or employment, or temporary living environments often complicated the discontinuity pattern. Familial constraints, such as tragic loss of the mother (through alcohol abuse, illness, death) were also evident. Pregnancy tends to set a quickened, cyclical pattern of discontinuity and detachment for women who already carry a history of abandonment/dumping and abandonment. Harsh parental reaction and 'chasing' the expectant mother is an added problem. Feeling disconnected from major structures of support and containment, and with no one to support them, the women often failed to sustain the maternal-child bond.

A significant number of the women would have given birth alone without any support, having concealed their pregnancy and having evaded prenatal care. They often entirely deny that they are pregnant, convincing themselves and others around them that they, in fact, are not pregnant. Most of them described themselves as feeling ambivalent, angry and bitter, irritable, stressed, fatigued, sad, and lonely before the incident. They worried about managing an additional child while struggling with being poor, young, single, and rejected.

Where these women/girls delivered in a health care setting, they also presented with severe material hardship. They would have come with little, if any baby layette, and sanitary pads; few if any visitors, but the systems of care would have been so disconnected from them, that they stayed undetected, until being discharged. They often arrived alone, for an emergency delivery, given a false name and address and escaped unsuspected. When they stay upon discharge, they disengaged from the infant. The girls reported that their interactions with hospital staff were often brief, to the extent that they could not confide in them that they had problems keeping the baby. They would have made neither preparations nor outward acknowledgement that they are having a baby and may suppress or deny the pregnancy, even when it is obvious to others. They often explain the weight gain through other factors. Harsh reaction from parents or the boyfriend may increase chances of denial.

Research conducted with girls and women offenders in prisons has consistently shown that earlier experience of physical, sexual, and emotional violation are the first step to later criminal involvement (Belknap, Holsinger & Dunn, 1997; Giffus, 1988; 1992; Oberman, 1996; Modie-Moroka, 2003). Chesney-Lind has done extensive work in the area of juvenile girls and crime and found themes of social injustices, violations and the blunted options for the girl child. A majority of girl offenders, who ultimately present with the crime of infanticide, would have experienced ongoing physical, emotional, and sexual violence in their homes, in their schools, at bars and other sites of entertainment (Modie-Moroka, 2003). This abuse continuum threatened the developmental potential of girl offenders. The vast majority of girl offenders often return to their homes where continued abuse without intervention would predispose them to further delinquent acts and damage their capacity to become law abiding and economically stable citizens. There is also failure of the various systems to identify and address the needs of girls-particularly mental health, substance abuse, and health disorders that are a result of violence and abuse.

Pregnancy places a burden on women in general and adolescent mothers in particular because it limits employment opportunities for women and their ability to support the family. It further interferes with their ability to complete their education especially when the young woman is an orphan or has a parent with a disability.

Existing efforts to address infanticide in Botswana

Currently, Botswana has few resources and institutions to meet the needs of women facing an unwanted pregnancy. Little is known about how to deal with baby dumping/abandonment and infanticide.

Child welfare services are under the Department of Social Services. Section 42 -55 of the Children's Act of 2009 looks at children in need of protection. This involves children who have been abandoned, neglected, ill-treated, or exploited and no suitable adult relative or other suitable adult can be found who is willing and able to care for the child. The act provides for procedures of reporting cases of children in need of protection; the application and making of protection order; care agreements and children with special needs children with disabilities, refugee, and displaced children and for the rehabilitation of abused children. The act also provides for the legal action to be taken against any parent, other relative, or guardian of a child or any other person having the custody of a child, who neglects, ill-treats or exploits the child or allows or causes that child to be neglected, ill-treated, or exploited. The act provides that such a person shall be guilty of an offence and shall be sentenced to a fine of not less than P5000 but not more than P20 000, or to imprisonment for a term of not less than six months, but not more than two years. Punishment for abortion and baby dumping range from three years to life imprisonment, but no woman has gone to prison that long for the acts. Though foster care and adoption services are not fully developed, the Children's Act provides for alternative care of children in need of protection. Under the act, a child is in foster care if the child has been placed in the care of a person who is not the parent, other relative or guardian of the child by an order of the children's court

Sexual and reproductive health services are often not available for young women. Abortion is an option under stringent conditions: when the medical practitioner carrying out the abortion is satisfied that the pregnancy is the result of rape, defilement, or incest; b) when the continuance of the pregnancy would involve risk to the life of the pregnant woman or injury to her physical or mental health; and (c) when established evidence shows that there is substantial risk that the child would suffer from or later develop such serious physical or mental abnormality or disease as to be seriously handicapped. Most women who would opt for abortion do not qualify. Child welfare agencies, in their search for solutions to the overwhelming number of killed and abandoned infants contend with high caseloads, shortages in foster care placements, and a lack of women and child-centered programs. Given the patriarchal nature of Botswana society, manifesting in forced sex and non-condom use and limited sexual and reproductive health services for young women, the high proportion of Botswana women that are of low socioeconomic status, explains the blunted options available to these women. The aim of this article was to lay out policy, research, and practice and identify prevention strategies to inform program development.

Implications for policy, research and practice

Although child abandonment and infanticide are historical problems, little is known about the conditions or effects of these acts to guide evidence driven policies. Baby abandonment and infanticide have been overlooked nationally in terms of data capturing, policy, guidelines and practice. A national policy on recording and handling of baby abandonment is urgently needed. Any measures taken to address the problem of infanticide and baby dumping / abandonment in Botswana must deal with gender issues in sexual and reproductive health services. Family planning and contraceptive services must be made more accessible to young women living in poverty and in violent relationships. The traditional supportive safety nets are not efficient especially for children that have been orphaned when the degree of

assistance from surviving parents is limited.

Research implications

Currently there are no data on infants that have been abandoned or concealed or killed. Little is also known about the long term effects of abandonment on these children. Further, little is known on financial and social costs the government incurs. Data is needed also on the factors that predict child abandonment, infanticide, and concealing birth. Improved tracking of the experiences of infants who are dumped would provide a more comprehensive picture of the problem and its societal and fiscal implications.

The scarcity of research on infanticides is regrettable because it impedes a broader understanding of the problem. Population-based surveys are needed to capture the prevalence of child abandonment and neglect; the association between past abandonment and neglect and high-risk behaviour; the association between past abandonment and neglect, high-risk behaviour and current health status. There should be a focus on establishing clear data collection frameworks to inform understanding, guide competent practice, and enable successfully targeted interventions. There is no systematic national record of baby abandonment events and a lack of standardized guidelines for dealing with the problems. There is also a need to explore mechanisms for investigating all known and suspected child deaths due to injuries.

Practice implications

Strengthening child protection services

Child protection services should be strengthened to include coordinated case management with families and alternative placements for children. The Department of Social Services (DSS) has the overall mandate for child protection. Apart from DSS, there exists a network of child protection agencies which work as civil society organizations. Childline Botswana, Marang Child Care Network, SOS Children Villages and other orphans and vulnerable children programs are some of the established child protection agencies that have built partnerships with government.

A national coordinating committee, with representatives from all relevant sectors, can help facilitate the implementation of a systematic response. Awareness of the issue and evidence-based discussion and guidance of how best to serve women and children in these situations is crucial. Women and girls experiencing these problems tend to be poor, socially isolated, and lacking access to resources. Interventions must consider using ecological and empowerment to mobilize concrete formal and informal helping resources. Collaborative processes between the family and the broader community should be enhanced to strengthen their sense of community that would enhance communal care of children.

Strengthen sexual and reproductive health services for young mothers

There is an urgent need to implement policy measures that can contribute to the prevention of unwanted pregnancies and consequent child dumping. The UN Committee on the Rights of the Child, which monitors State compliance with the Convention on the Rights of the Child, states that governments must take measures to combat unsafe abortions among adolescents, urging 'States parties, (a) to develop and implement programmes that provide access to sexual and reproductive health services, including family planning, contraception and safe abortion services where abortion is not against the law, adequate and comprehensive obstetric care and counselling; and (b) to foster positive and supportive attitudes towards adolescent parenthood for their mothers and fathers; and (c) to develop policies that will

allow adolescent mothers to continue their education’ (Committee on the Rights of the Child, 2003). Article 24 of the Convention on the Rights of the Child, which has been ratified by all UN member states except Somalia and the United States, established the right of children and adolescents to health care (United Nations, 1990).

The CRC/C/51/Add.9 report of the 27 February 2004 found that the since the age of legal capacity is higher than the age of consent, girls and young women are supposed to get parental consent for an abortion. This provision continues to inhibit their ability to seek a legal abortion. Several studies, however, have shown that adolescent sexual relations in Botswana happen at an early age. More than three out of four never-married women and nearly half of those aged 15–17 are sexually experienced and are associated with high levels of pregnancy related. Family planning methods is said to be low, leading to a high percentage of never-married mothers, school dropouts, abortions and HIV transmission (Gage & Meekers, 1993, 1994; Dynowski-Smith, 1989)

Based on this, early intervention strategies to prevent the health of women not only during pregnancy, but (also) before pregnancy, between pregnancies, beyond pregnancy and across their life course. Young mothers often have lower educational and occupational attainment. As a result, they are left working minimum wage jobs, dependent on parents who may be on governmental assistance. Enhancing young people’s access to sexuality and reproductive health information and services is essential to reducing unwanted adolescent pregnancies, and thus unsafe abortions.



Youth-friendly services

Youth-friendly services designed to meet adolescents' needs. It may be assumed that adolescents will more likely seek sexual and reproductive health care when they are able to access youth-friendly services characterized by a welcoming, non-judgmental setting. Young people should have information on where to access care and support services and reproductive health services. Addressing gender inequalities by improving young girls' opportunities to obtain education and skills training; by protecting their rights, and by boosting their income-earning prospects is key to meeting their sexual and reproductive needs. Authorities need to clearly transmit the message that sexual exploitation of and violence against young girls and boys are unacceptable.

Legislation – safe haven legislation

One of the entry points for prevention of baby dumping and infanticide is to create safe haven legislation in Botswana. This is a response to unsafe child abandonment and infanticide. This law would protect infants of pregnant teenagers who may want to abandon their babies. This law would allow a person to bring an infant to a designated site (such as a hospital, clinic, child welfare centre), without fear of criminal prosecution for abandonment. The guiding principle is that the child is given a chance to survive instead of being unsafely abandoned or killed after birth. The safe haven law is intended to provide an alternative path for desperate women, and it includes provision of legal and anonymous surrender as an alternative to illegal and unsafe abandonment. Therefore, if a woman at risk of abandonment is made aware of this policy, she may instead decide against an illegal abandonment and choose to legally surrender her newborn to a designated place.

Increasing public awareness efforts

Raising public awareness of the serious and pervasive nature of baby-dumping and infanticide is essential in order for real change to occur. Wide societal recognition of baby-dumping and infanticide can help mobilize significant financial and human resources to address the problem. There is also need to increase efforts to address social problems such as poverty, substance abuse, and family violence which are related to baby-dumping and infanticide.

There is need to also increase direct services to families such as home visiting, early childhood education, and family planning. Infanticide and baby dumping often occur because parents are overwhelmed by an array of stressors, including the difficulties of coping with poverty, single parenthood, limited parenting skills, depression, substance abuse, interpersonal violence, to name a few. Such efforts could help prevent baby dumping and infanticide.

Appropriate early intervention services

Alternative placements in home-like settings are needed to assist in helping abandoned infants to develop normally. While current practice provides for children born from orphaned children to be fostered by relatives while the mother completes her education, relatives are at times unwilling to foster children. Other relatives may agree to take up the child, only to rescind on their agreement. Foster care placement should be sought more vigorously, and where possible, priority be given to infants from orphaned mothers. Government should also take a tough stance on enforcing child maintenance laws and implementing garnishee order where adolescents are involved.

Compulsory mental health screening of expectant mothers

Many cases of chronic abandonment/dumping involve emotionally unstable and depressed

parents. There is an urgent need to devise strategies to screen women and girls for emotional problems (including family history of postpartum depression) during pregnancy. Guidelines could be developed for the treatment of postpartum depression and foster sharing of knowledge between psychiatry, nursing, social work and the law, and do more to enlighten society about the effects of mental illness on thought and behavior. Government funded programs would assist mothers with their infants from pregnancy to six years old are desperately needed.

Conclusion

Baby dumping and child abandonment have potentially wide-ranging and long-term psychological implications. These issues have been neglected in Botswana in terms of policy, practice, and research. Good policy and practice is informed by data that builds a knowledge base for understanding a particular.

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Botswana has one of the highest HIV prevalence rates in the world, at 17.6%.¹⁴ Amongst those 1.5 to 4 years of age, the prevalence is 2%.¹⁵ In the last decade, the percentage of under-five deaths due to HIV has been on a decline, attributable to a combination of factors including the scale-up of prevention of mother-to-child transmission programmes and treatment for pregnant women and children as well as a decline in the prevalence of HIV among pregnant women.¹⁶ However, what is startling and of note is the fact that prevalence rates increase dramatically as adolescents enter into adulthood; the prevalence for those 20–24 years was 12.5% in 2008.¹⁷ Consequently, in the absence of an AIDS cure, prevention of new HIV infections, especially among young Botswana remains the basis for an AIDS-free generation.¹⁸

In this section of the publication the article by Hu, provides some insight into the world view of AIDS orphans in Botswana. The author sheds light on the perceptions of youth on education, family and HIV/AIDS. In the article that follows, Emmanuel and Chilisa provide the findings of a baseline study of HIV and AIDS knowledge and beliefs among adolescents. The authors argue that HIV awareness among adolescents is relatively high however there are certain beliefs that influence youth sexual behaviour that put them at risk of infection.

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10 From the outlook of orphans: The next generation's future

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Background

It is estimated that in Botswana today, 77% of the orphans are AIDS orphans (Miller, Gruskin, Subramanian *et al.*, 2007). According to UNAIDS, the international definition of an orphan is 'a child below the age of 18 who has lost one or both parents' (UNAIDS & UNICEF, 2005, p.17), and the international definition of a vulnerable child is 'a child below the age of 18 who lives in a household with an adult death or illness in the past 12 months, or is living outside of family care' (UNAIDS & UNICEF, 2005, p.17). The at-birth life expectancy in Botswana fell from 65 years in 1990–1995 to less than 40 years in 2000–2005 due to the HIV epidemic (United Nations, 2004), leading to the phenomenon of a missing parent-aged generation. As a result, many orphans are raised by grandparents or other extended relatives. The stigmatization, emotional impact and decreased access to education create a large burden for an estimated 93,000 children orphaned by AIDS (UNICEF, 2010).

In light of the HIV epidemic in Botswana, as well as across Southern Africa, a key step in finding sustainable possibilities for the future is learning the perceptions of people who will be experiencing that future; orphans and vulnerable children (OVC) in Botswana are arguably the most intensely affected population at the present. This study has multiple purposes. First, it is to explore the personal and developmental consequences of the unique and unprecedented phenomenon of large numbers of OVC. Secondly it provides recommendations that will be valuable to local aid organizations and stakeholders, and assist Botswana youth with improving their lives on personal and community levels.

Methods

Research design:

This is a descriptive, qualitative anthropological study designed to provide an overview of the lives of OVC in everyday terms, without extensive interpretation (Sandelowski, 2000, p.336). In-depth, detailed information was collected (in 2010 and early 2011) through individual interviews and focus group discussions to elucidate topics such as educational/career goals, prospective family structures, and HIV.

Sampling:

Three distinct groups were sampled in this study: 1) adolescent OVCs, aged 12–19 years, 2) caregivers of OVC, both biological and adoptive, and 3) social workers and guidance counselors who have worked with OVC. These groups were selected based on their rich and differing perspectives and experiences with OVC. From the entire OVC population in Botswana, adolescents were selected for their capacities to provide more mature responses to questions about their future. A total of 59 research participants were involved in this study, from the South-East and Kgatleng districts. Twenty interviews were conducted with OVC, ten per district; ten interviews with social workers, five per district; and four focus group discussions with twenty-nine caregivers (ranging from six to ten participants per group), two per district.

Study sites:

Research was conducted in two different, peri-urban villages: Tlokweng and Mochudi.

- Tlokweng Village (South-East District): Tlokweng is a village (part of a larger district that holds the same name) just outside of Gaborone, the capital city of Botswana. Most of the research in Tlokweng was conducted at the site of SOS Children's Village, an orphanage

that houses over a hundred children, and involves selected house mothers, a few teachers, and other staff.

- Mochudi Village (Kgatleng District): Larger and more rural, Mochudi is a village about 35 kilometers north of Gaborone (Mochudi, 2009). Several of the research participants in Mochudi were part of an after-school program for OVC youth called Stepping Stones International.

Ethical considerations:

The research protocol was approved by the Office of Research and Development at the University of Botswana, as well as by Botswana's Ministry of Local Government. Permission to conduct the study was also obtained from district chiefs and social workers.

In order to maintain ethical standards when conducting research with an especially vulnerable population, several precautions were taken for this study. No OVC under 18 years old were interviewed without their caregivers prior approval; in addition, each interviewee gave consent prior to the interview. The consent form stated that all feedback would be anonymous and the person's identity would not be disclosed for any reason; that they were not obligated to say anything and were permitted to withdraw from the study at any time; and that audio recordings would be used for transcription and data purposes only, not for identification.

Data collection procedures:

Research participants were identified through connections with the Ministry of Health, several OVC Non-Governmental Organizations, and social workers in the South-East and Kgatleng districts. Several of the research participants were involved with SOS Children's Village, an orphanage organization in Tlokwen, and Stepping Stones International, an after-school OVC program in Mochudi. The adolescent OVC and the social workers as well as guidance counselors were interviewed individually, while the caregivers participated in focus group discussions. The interviews were audio-taped with permission from the participants, to be used for transcription and later analysis. To assist with language differences, each interview with an OVC and all focus groups with caregivers were assisted by an English-Setswana interpreter.

Data collection instruments:

In-person, semi-structured interviews and focus groups discussions were used to explore the goals and future prospects of OVC. The interviews lasted between twenty and forty-five minutes, while focus group discussions ranged from thirty minutes to an hour. After obtaining basic demographic data such as the participants' age, education level, and home village, questions were asked that were designed to elicit in-depth information about the aspirations and prospects of OVC in the near future (10–20 years), focusing on education and career choice, family structure, and HIV.

Included in the OVC interviews were questions about their interests in school and what they wished to achieve after school; inquiries about whether they wanted to have families, children, and/or get married; and a request for ideas about how to personally address the HIV epidemic. The focus group discussions with caregivers asked for similar predictions for the OVC they cared for, and also asked about challenges facing OVC as they enter adulthood. The social workers/guidance counselors were asked about their predictions for OVC in Botswana in general. All were asked to give suggestions about improving the livelihood of OVC in the country, personally and generally.

Data analysis:

Transcripts from interviews and focus groups were reviewed and evaluated, in order to identify emerging themes and their relationships to the main objectives of the study.

Results – findings and conclusions

Education:

The OVC have substantial academic interests, but there is little connection between those interests and having a related career, or making a prospective career a reality. They expressed definite interest in school, and could easily name their favorite subjects. However, when asked how they plan to pursue those subjects in the future, or what they might want to do professionally, the responses were convoluted and unsure. Most of them suggested gender-stereotypical, government-related jobs (such as becoming a teacher or social worker for females, or a policeman for males), which might indicate little contact with lesser-known vocations. In addition, they often did not know how to make successful professional career eventuate – responses about achieving career goals were: “working hard until you become one” (female, 14 years old, Tlokweneng), “trying to pass, I don’t know what else is needed” (male, 14 years old, Tlokweneng), or “I need better grades so I am willing to retake some of my subjects so that I manage” (male, 19 years old, Mochudi). Several of them recognized a need to attend university. Realistically, they need to develop more critical thinking and analytical skills, as well as motivation. Many of the OVC are not doing well in school, despite school being recognized as important, but there is a desire among many of them to do better. For example, one person said, “I perform better in school than I used to, but according to me I don’t think I have reached a higher standard. I don’t deserve the marks that I am getting in school; I believe I am capable of doing better than that” (male, 15 years old, Mochudi).

The caregivers’ predictions for OVC academic and professional futures were pessimistic: they said that OVC are “not interested in schoolwork,” and “only a handful of them are setting goals.” In addition, some believed that the relative immaturity of OVC led to poor social behavior, and a change in such behavior could accelerate their personal and professional development. In addition, caregivers in Mochudi said that if a child fails to pass form 3 or form 5, there is no possibility of re-entering the school system, and s/he is forced to discontinue her/his educational career. [It should be noted that there was no mention of BOCODOL, the Botswana College of Distance and Open Learning]. Some caregivers did mention a few exceptionally motivated OVC.

The social workers and guidance counselors believed very strongly in the importance of scholastic pursuit, an area where OVC suffer a disadvantage. Like the caregivers, they asserted that school could help OVC both academically and behaviorally, and make them more engaged, well-rounded individuals. One social worker (female, Tlokweneng) said that people should

“encourage all kids to be in school, because when a child is in school, it is very rare for that child to do bad things or not work.” Another said that “the OVCs need to be empowered, and need increased self-esteem and confidence,” which would subsequently “increase motivation toward their studies” (female, Mochudi).

One social worker stated that schooling can make or break one’s career, and that it “all depends on the education and how [they] have excelled at school” (female, Mochudi).

They acknowledge that OVC have particular challenges in doing well academically – many don’t excel, and their past often burdens them:

"These [burdens] are still within their hearts and they may be don't pass very well at school, as compared to other children who were not exposed to difficult circumstances" (male, Tlokweng).

Additionally, they noted that many OVC experience considerable discrimination and ridicule on a day-to-day basis from their peers.

Family:

Overwhelmingly, the OVC did express a desire to one day have a family one day that includes a spouse and children:

"I want to marry, have kids and stay in my own home with my family" (male, 14 years old, Tlokweng).

Another strong desire was for the OVC future children to lead lives different from their own. One response was:

"I want them to live a good life because I don't want them to suffer like I did" (male, 17 years old, Mochudi). Another was, "I want my children to live a different life as compared to mine. I want them to be happy, free and open to talk to me anytime. I want them to develop good character and manners" (male, 16 years old, Mochudi).

Overall, they want their future children to fare better than they have; to study and excel, to not engage in risky behaviors like intergenerational and/or unprotected sex and to be safe from rape. One person expressed a desire to focus on her career first so that she would have enough money to support children comfortably; another person had already had a child at the age of 16 but had been unaware of her pregnancy until the fetus was at 24 weeks gestation – she hadn't had sufficient sex education, and expressed a desire to share her story and knowledge with others, in order to prevent similar stories from recurring.

The caregivers believe that most adolescent OVC will not be ready to have families in the near future, and that they don't think long-term about this subject. They did, however, predict that most of them would desire family life, and that the few exceptions to this could be attributed to the difficulties that OVC experienced in their own upbringing. After enduring considerable hardships in their formative years, caregivers believe that some OVC have

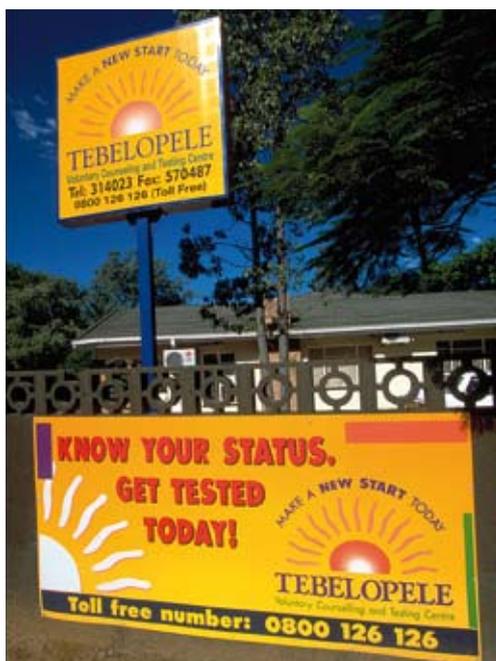
"altered their behavior, even their thinking. They [have] just told themselves that they want to stay alone."

The caregivers do foresee challenges as OVC begin to build family structures of their own: the liberal parenting and lack of discipline that was often part of their upbringing will affect them as they try to assume responsible adult roles. But despite OVC personal encumbrances, caregivers still believe that OVC want to build stable families:

"She aspires to have a normal family someday, for her children to grow under the love and care of both the mother and father."

Like the OVC and caregivers, the social workers and guidance counselors from both communities agreed that OVC will want to form family structures, get married, and have children. A social worker in Tlokweng (male) says,

"Obviously they will want to become parents in the future," that they will want family and marriage "just like normal kids." But they also believe that OVC face significant disadvantages, including psychological issues ("OVC have these suppressed painful experiences," reports a male social worker in Tlokweng), the experience of inadequate parenting as a poor example ("poor parenting" will lead to fewer marriages, violence, and alcoholism, says another male social worker in Tlokweng), and the phenomenon of government dependency that often lifts responsibility of adults. Social workers believe that OVC will need to overcome these very significant obstacles in order to form successful families.



HIV/AIDS:

When OVC were asked about HIV-awareness campaigns, their reactions were mixed. Some reacted positively, some negatively, while others were indifferent. Regarding the effectiveness of the campaigns, OVC seem to be aware of HIV and know that there are inherent risks, but their knowledge, especially when applied to aspects of daily life, seems unclear. When asked what personal actions they could take to help address the HIV epidemic, many of them did mention condoms and faithfulness, but they also talked of spreading awareness, telling their friends about some of the risks and how to practice safe sex, and to keep learning about HIV and corresponding preventative measures. Some of them have observed changes in the younger population – increased precautions, and a feeling of group responsibility. One person said:

"I can be a peer educator. It is a collective responsibility to try and alleviate the issue of HIV/AIDS as a nation" (male, 16 years old, Mochudi).

People who reacted negatively to HIV campaigns, and/or saw the efforts as ineffective, were less enthusiastic about the epidemic lessening in the near future, although others disagreed:

"I think HIV could be made less of a problem in Botswana, by telling people to refrain from risky behaviors such as unprotected sex, which can make them more susceptible to contracting HIV" (female, 18 years old, Mochudi).

Another way to help others was by expressing a willingness to share one's own story: one young woman contracted HIV through rape, and wanted to share her experiences as a cautionary tale.

The caregivers affirmed that sexual relationships amongst OVC are a risky but common phenomenon, as is sexual abuse from adults. They believe that this occurrence does little to help the HIV epidemic in Botswana.

The social workers and guidance counselors believe that adolescent OVC need psychosocial support, and exposure to continuous and comprehensive (not abstinence-only) campaigns that emphasize preventative behaviors against the acquisition of HIV, because effective behavior change is a "long-term job" (female, Tlokweng). They also believe that the "disintegration of the family unit" has led to "no or less social support from family members" in light of positive HIV diagnoses (female, Mochudi). As for whether the HIV epidemic in Botswana is likely to get better or worse, there were mixed reactions – some people believed it might worsen:

"I don't see it really changing because most of these OVCs are a result of HIV/AIDS, and for now the rate of HIV is still going up. As long as the rate is still high, I don't see the situation changing" (male, Mochudi), while others think positive change is very possible:

"...looking at the behaviors of Botswana, I think behavior change is improving, and that will lessen the number of OVC because we won't have as many deaths from HIV/AIDS" (male, Mochudi).

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Recommendations

OVC had expressed substantial desire for formal education. The author recommends that OVC should be assisted to improve their academic training. Some of activities that can be used to assist OVC includes creation of opportunity for career exposure, tutoring for motivated students, encouragement of long and short-term goal-setting, and expanded support networks for students who fail form 3 or form 5, including vocational college and brigades, and programs like Botswana College of Distance Open Learning.

To improve their quality of life, there should be efforts to increase students' self-esteem and self-awareness, psychosocial support for OVC discrimination, and opportunities for OVC to attend boarding schools. Training caregivers about fostering academic and personal development for their children would also be beneficial.

They also need to be assisted so that they can become good parents, role models, and mentors as well as be encouraged to think critically about family life. They would likely benefit greatly from increased provision and accessibility of adolescent-specific psychosocial support, and comprehensive sex education.

OVC should also be given more applicable and deeper-level knowledge about HIV. They should be taught about the right to say "no," and about the risks of multiple concurrent partnerships and intergenerational sex, as well as empowered about personal safety and responsibility. In addition, young people would benefit from a safe support network following incidences of sexual assault, as well as from an open forum to share their own HIV/AIDS and sexuality-related stories with one another.

11 Baseline assessment study of HIV and AIDS knowledge and beliefs among adolescents in Botswana¹⁹

Introduction

Botswana has a population of about 1.8 million. Nearly one quarter of the population is made up of adolescents aged 10–19 years. Despite Botswana's strong economic growth record, prominent challenges have arisen over the last two decades that threaten to unravel past successes. Botswana has a high HIV prevalence of 17.6% (CSO 2009). HIV prevalence among pregnant women aged 15–49 years is reported at 31.8% (Ministry of Health–MoH, 2009). The 2004 Botswana AIDS Impact Survey report showed infection rates of 3.9% for the 10–14 year olds, 6.6% for the 15–19 year olds and 19% for the 20–24 year olds. And for every HIV positive boy in the 15–19 year age group, there were three HIV positive girls. By 2008 the situation had not changed much although the Sentinel Surveillance Survey data trend for 1992–2006 show that there has been significant ($p < 0.0001$) decline in HIV prevalence from 2001–2006 among young women in the age groups of 15–19 and 20–24 years.

Comprehensive knowledge of HIV prevention is very low among adolescents and young people in Botswana. Close to three-fifths (57.9%) of young people aged 15–24 years lack comprehensive knowledge of preventing sexual transmission of HIV (CSO 2009). This has implications for adolescents' sexual behaviour. Adolescence is a transitional period during which experimentation and high-risk health behaviours, including HIV-related sexual risk behaviours may be initiated. Many of the sexual health-protecting and risk behaviours that are begun during adolescence persist into adulthood (Bennell, Chilisa, Hyde, *et al*, 2001; Chilisa, 2006; Chilisa, Makwinja, Monnadibe *et al*, 2008). Adolescents often act within the context of social and cultural influences. In some communities in Sub-Saharan Africa, social norms often condone or even force young people into sexual activity by encouraging early childbearing, male promiscuity and fail to condemn sexual relationships between older men and younger girls (Jemmott III, Jemmott, Faan *et al*, 1998; MoH 2001, Chilisa, 2006). In Botswana one of the major influences of sexual behaviour is the society's perception of sex. Sex is perceived as 1) procreation, 2) exchange 3) social interaction, 4) religion/spirituality 5) cleansing and healing, 6) family property and 7) a means of control and oppression (Chilisa, 2006). These have a bearing on adolescents' perceptions and attitudes towards sex and sexual risky behaviour, knowledge on HIV prevention and condom use (Meekers, Ahmed, ad Molatlhegi, 2001).

The theoretical framework for the study is premised on the fact that interventions based on HIV and AIDS prevention knowledge may have minimal impact on behaviour change unless they are combined with information on beliefs about HIV and AIDS; beliefs on prevention methods such as abstinence, condom use; partner relations; critical information gaps on misconceptions on HIV and AIDS; and information on sexual behaviors. The framework posits that the development of HIV and AIDS prevention education programmes require first to identify the behaviours that need to change and then to identify the modifiable determinants of risks associated with the behavior targeted to change. The study draws from the theory of planned behaviour.²⁰ Specific intentions determine behaviours. It can be predicted that condom use, abstinence and having one partner are practices dependent on adolescents' intentions to act on those behaviours. The intentions are determined by attitudes towards the behavior, subjective norms towards the behavior and perceived behavioural control or self-efficacy over these behaviours. Adolescents are more likely to

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19. The study was conducted in 2008 with financial and technical support from UNICEF and endorsement by the Ministry of Education and Skills Development. The consultant was a staff member of the University of Botswana.

20. Adapted from Ajzen, I. (1991).

abstain, use condoms consistently or have one faithful partner if they (a) evaluate the behavior positively, (b) believe significant others think they should practice the behaviors and (c) feel confident that they can practice the behaviours. The key elements include the following:

- *Attitudes towards Behaviour:* These are seen as reflecting behavioural beliefs about the consequences of abstaining, using condoms and sticking to one partner.
- *Subjective norms:* These reflect whether specific referent persons such as peers, romantic friends, church leaders, teachers or parents would approve or disapprove of abstinence, condom use or sticking to one partner.
- *Control Beliefs:* These are the adolescents' beliefs that they have the necessary resources, skills and opportunities to perform a behavior. These include impulse control beliefs, negotiation beliefs, technical skill beliefs and availability beliefs.
- *External Variables:* These are salient factors that influence adolescents' HIV related behaviors, normative and control beliefs. The factors will include the gender norms, cultural knowledge and practices on sex and sexuality, family beliefs and practices and school cultures.

Objectives

This article is based on the findings of a survey that was conducted in October and November 2008. The objectives of the survey were to describe the sexual behaviours of 10–18 year old adolescents in and out-of-school, determine knowledge and attitudes towards the four main ways of HIV prevention,²¹ attitudes toward People Living with HIV, how information on HIV and AIDS is acquired and how decisions on sexual behaviours are made.

Methodology

Multiple probability sampling procedures were used to draw the study sample size from 10 rural and 7 urban districts, which constitute the 6 education districts in Botswana. This ensured that various sub-populations were equitably represented in the sample. Stratification was done by education district, gender, school-type and grade level. Due to the non-existence of a sampling framework, a special quota sampling method was applied in villages where some of the selected schools are located in order to reach the out-of-school adolescents.

Based on a calculated and computed sample size of 1,150 participants to be interviewed, a total of 1,054 interviews were conducted using self-administered structured questionnaires across the three levels of education: a total of 16 respondents were randomly drawn from each selected primary school, 18 respondents from each junior secondary school and 16 from each senior secondary school. Depending on the population size of the selected locality, 4 to 10 out-of-school adolescents were selected each from 14 centres. The survey had an overall response rate of 92%.

Data entry was done in Epi-Data and exported to an SPSS file for analysis. Analysis included measures of central tendency, frequencies and contingency tables, measures of associations for certain critical variables, and multiple linear regression, ANOVA and t-tests.

Findings

Characteristics of the sampled population: A total of 1,054 adolescents (49.2% girls) participated in the survey with a mean age of 13.5 for girls and 13.8 for boys. The proportions were 44%, 39% and 17% for rural, semi-urban and urban locations respectively. Thirty-one per cent of the respondents were in junior secondary and 27% from lower primary school. Lower primary and upper primary schools accounted for 53% of the sample. About

21. Condom use, abstinence, one partner who has no other partner and knowledge of circumcision

one half (51%) of the respondents lived with mothers most of the time, 16% lived with both parents, 12% lived with other siblings, 7% lived with single fathers and 1% lived alone.

More than one-tenth (13.5%) of the adolescents surveyed had already experienced first sexual intercourse. Of the adolescents who had already experienced sexual intercourse, 49% of the boys had their first sexual intercourse when they were between the ages of 15–18 years compared with 84% for girls within the same age range. The mean age at first sexual intercourse was 14 years while the median was 15 years. The lowest age at first sexual intercourse was 9 years for girls and 6 years for boys. The mean age at first sexual intercourse was 13.2 years for boys and 15.8 years for girls. Sixteen per cent of the 141 adolescents who had experienced first sexual intercourse were forced to have sex against their will. Fourteen of the 87 boys who reported first sexual intercourse were forced to have sexual intercourse. In comparison, 9 out of the 54 girls who reported first sexual intercourse were forced to do so against their will – in some cases as many as 30 times in a year compared to boys who reported being forced to have sexual intercourse as many as 10 times in a year. There was also evidence of intergenerational sex among the adolescents. Girls experienced first sexual intercourse with partners older than them. About one-third (34%) of the girls had first sexual intercourse with partners in the 20–29 age range compared to 3% of the boys. The average age for girls' sexual partners was 18.2 years while the average for boys was 13.5 years.

HIV and AIDS awareness and knowledge of HIV prevention: Awareness of HIV was high overall but differed by location and school grade level. Ninety-one point eight per cent (91.8%) of the adolescents had heard about HIV and AIDS. The proportions were 96.1% and 87% for adolescents in urban and rural areas respectively. The high level of media exposure on HIV and AIDS and literacy in the urban areas compared to the rural areas may explain the differences. Pupils in standards/grades 4 to 5 had the lowest awareness level (87.1%) compared to those in Forms 4 to 5 (99.2%). A high percentage of Forms 4 and 5 adolescents in urban areas reported seeing a person with HIV and AIDS or knew a person who had died of AIDS. Almost 70% of the respondents reported discussing HIV in the last four weeks. Majority discussed HIV in the last four weeks with their friends and secondly with teachers. This high level of awareness however did not translate into specific knowledge on HIV and AIDS (Emmanuel 2009). Only about 3% of the respondents correctly identified all the main ways of preventing HIV infection and the misconceptions.²² The knowledge score of the lower primary and upper primary students was significantly lower than that of junior secondary, senior secondary and out-of-school adolescents. Adolescents across the streams scored poorly on the questions on male circumcision. Adolescents were asked to select from a list ways that people can use to reduce their chances of contracting HIV. Close to sixty per cent (58.8%) of the respondents mentioned the use of condoms. About 30% mentioned no sex (abstinence) as a strategy to reduce chances of becoming infected with HIV while 17% mentioned both partners have no other partner (sticking to one partner as a prevention method). The survey revealed that up to 85% of the adolescents would care for a family member living with HIV. About 31% would not allow a teacher who was HIV positive to teach in their school.

How adolescents obtained information on HIV and AIDS: The school was the most common source of information for adolescents with almost half of the participants obtaining information on HIV from the teacher in the classroom. The second source of information was the radio followed by television. Only a very small number of children obtained information on HIV from the church. The teacher in the classroom, followed by the radio were the most

22. UNIADS and BAIS 2004 indicator on knowledge measures



common sources of information in primary and junior secondary schools while television and the newspaper were common sources of information for senior secondary respondents. Television and the radio were the most common sources of information in the urban areas. In the semi-urban and rural areas, the teachers in the classroom followed by the radio were the most common sources of information.

Perceptions and beliefs on male circumcision: More than two-thirds of the adolescents did not agree that male circumcision should be recommended as a prevention measure while 50.8% would not agree to be circumcised or recommend that their boyfriend be circumcised. 55% of the adolescents agreed that children under the age of 18 years should seek parental permission before they are circumcised, and 22.2% prefer male circumcision to be performed by traditional doctors.

Attitudes and beliefs about abstinence and condom use: One-third (33.6%) of the adolescents did not agree that not having sex will help them stay healthy, while 35% did not think that their parents will think highly of them if they abstained from sex. Less than 50% of the adolescents viewed abstinence positively. The highest percentage of those likely to approve of sexual intercourse in the next three months were boy/girlfriends; while 25% to 31.8% of the adolescents were unsure if their friends and relatives would approve of them using condoms if they had sex in the next three months and 34.8% to 42.4% belief friends and relatives would disapprove.

Facilitators and barriers to positive sexual behaviour: Respondents who strongly agree with beliefs that 'if a boy stays a virgin for too long it's a sign that they are afraid of girls', that 'staying a virgin for too long will make one sick' and that 'if one does not have sex for a long time they will not have children' tend to be more likely to report planning to have sex in the next three months. This factor is a significant predictor variable of intentions to abstain ($p < 0.001$).

Perceived severity of HIV was a predictor of intentions to abstain. Someone who strongly agrees that if they have sex they will contract HIV will tend to respond 'less likely' to the question regarding the decision to have sex in the next three months. Approval by significant others to engage in sexual intercourse also significantly predicts intention to abstain ($p < 0.001$). Those who think that lover/friends, mothers, etc. would strongly approve of them having sex are highly likely to report intentions to have sex in the next three months. Boys have less intention to abstain compared to girls, and these two groups, are significantly different from each other ($p = 0.000$).

The regression model in Table 1 below shows that adolescents who reported greater self-efficacy with respect to condom use are more likely to strongly agree to use a condom the next time they have sex ($b = 0.476$). Respondents with higher knowledge of HIV prevention methods score ($b = 0.759$), or who are older ($b = 0.032$) or who are female ($b = -0.085$) are more likely to have high intentions to use condoms; and they significantly influence the intention to use a condom.

Table 1 Summary of the fitted predictive model II with all predictor variables on intention to use a condom

Predictor variables	Intention to use a condom				
	Parameter estimate	SE(b)	T	Sig	Overall R ²
Availability and skills score	0.036	0.036	1.010	0.060	0.468
Behavioural beliefs	0.058	0.043	1.356	0.313	
Approval to use a condom by those who matter most	0.169	0.021	8.031	0.175	
Age of respondent	0.032	0.010	3.211	0.000*	
Self-efficacy	0.476	0.028	17.124	0.001*	
Knowledge	0.759	0.126	6.041	0.000*	
Gender of respondent	-0.085	0.046	-1.869	0.000*	

*P value significant at 0.05percent

Table 2 Summary of the fitted predictive model II with some predictor variables on intention to use a condom

Predictor variables	Intention to use a condom				
	Parameter estimate	SE(b)	T	Sig	Overall R ²
Behavioural beliefs	0.074	0.039	1.875	0.061	0.468
Approval to use a condom by those who matter most	0.168	0.021	7.994	0.000*	
Age of respondent	0.032	0.010	3.147	0.002*	
Self-efficacy	0.473	0.028	17.119	0.000*	
Knowledge	0.737	0.124	5.957	0.000*	
Gender of respondent	-0.084	0.045	-1.840	0.066	

*P value significant at 0.05percent

However, approval for condom use from people who matter most does not influence condom use. The effect of multicollinearity between availability and skills variable and behavioural beliefs renders the two variables ineffective in influencing condom use.

Fitting a predictive model that excludes availability and skills variable changes the effect of 'approval to use a condom by those who matter most' as shown in Table 2, left. A response that strongly agrees that these people approve of condom use is associated with tendency to intend to use a condom ($b=0.168$).

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Conclusion

Abstinence is not a popular HIV and STI prevention method and adolescents had less intention to abstain. However, the results revealed that forced sex, repeated forced sex, and age of sexual partner are possibly factors explaining higher rates of HIV infections because they occurred more frequently among 15–19 girls compared to boys. More girls than boys were forced to have sex against their will by people older than them. Repeated forced sex without consistent use of condoms is more likely to expose girls to HIV and STI infections. Having one partner was not a recognised HIV prevention method. Condom use is a recognized and more acceptable method of HIV prevention with adolescents. Self-efficacy and HIV prevention knowledge however predicted intentions to use condoms.

Recommendations

The study recommends the need (a) for outreach programmes, community mobilization and peer education programmes to address forced sex and intergenerational sex in the 10–18 year old adolescents; (b) to expose all children in schools to accurate knowledge on HIV and behavioural skills, especially targeting primary school pupils with discussions and demonstration on condom use, assertiveness and negotiation skills and self-efficacy; (c) schools should create a compassionate and supportive environment for in-school adolescents and teachers living with HIV and integrate the topic on stigma in the curriculum to enable adolescents to gain sufficient information and knowledge to decrease stigmatizing attitudes; (d) male circumcision should be integrated in the school curriculum and all life skills programmes for in school and out-of-school adolescents; (e) increase radio and television life skills programmes that focus on 10–18 year olds and engage faith-based organizations to play significant roles in disseminating messages on HIV and behaviour change; (f) develop interventions that seek to facilitate parent-child communication with the support of community-based organizations, faith-based organizations and non-governmental organizations in order to facilitate behaviour change; and (g) identified barriers to abstinence can be utilized in the development of school materials and communication materials that promote virginity and abstinence.

Child-sensitive Social Protection



Children face a number of socioeconomic vulnerabilities such as child labour, homelessness, child headed households etc, for which social protection is required. Although there are a number of social protection mechanisms in place in Botswana to support various vulnerable groups, support for vulnerable children is limited to the orphan and vulnerable care programme which at an operational level does not comprehensively address the full range of vulnerabilities faced by children. What is required are social protection interventions that at a minimum, are in the best interest of children and take into consideration the age and gender specific needs of children. Also fundamental is the importance of ensuring that protection is sufficiently extended to encompass late adolescence and early adulthood, which are pivotal stages in the life of an individual. Doing so consolidates and harnesses the investments made in early childhood.

This section of the publication encompasses four articles that highlight the importance of child sensitive social protection. Jacques provides reflections on the significance of statutory foster care in Botswana. The author outlines the essential policy and institutional factors required for an effective and child sensitive foster care system. While Kebakile and others provide a discussion on the extent of child poverty in Botswana. The authors highlight the findings of an analysis of the Household Income and Expenditure Survey conducted by BIDPA and point out that poverty in childhood, particularly for the age group 0–14 year, is more pronounced than in adulthood. Next, Botlhale addresses the challenges and problems that local authorities will have to contend with amidst the current fiscal constraints. The section ends with an article by Turner and colleagues who put forward a proposal for a child grant in Botswana, in an effort to address the needs of poor and vulnerable children.

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12 Personal reflections on statutory foster care and its significance for Botswana

Introduction

As the industrialized world is moving from assumption of responsibility for children in need of care by welfare authorities to reinforcement and support of kinship networks, Africa is proceeding towards alternative strategies. HIV and AIDS are devastating the African continent in terms of economic displacement; a declining labour force; escalating costs in regard to health, training, and sickness benefits; and increased spending on poverty alleviation including allowances for destitute persons and orphaned children. Traditional systems of support are changing as a result of the pandemic and coping mechanisms are metamorphosing in an attempt to address the enormity of the issue. Concepts foreign to customary practice such as residential and regulated home care are having to be considered to meet the needs of large numbers of infected and affected children who require a materially and emotionally secure home environment. The following reflections examine the provisions of the proposed statutory foster care programme (as well as some of its implications) for Botswana from the writer's professional perspective and experience.

Memories and related thoughts

Child protection and child welfare/wellbeing

I remember, as a child, having to recite a poem at a drama *eisteddfod* about girl children who were orphaned during the second world war and forced into employment in order to contribute to the meagre resources of relatives who were caring for them. The war had had a devastating effect on many people in Europe and the setting of the poem was a small factory in Italy, in the eerie basement of a dark, depressing building, where the children made artificial flowers for sale to the public. The poem was entitled 'The Flower Factory' and I struggled not to weep as I recited it, especially the last verse read thus:

*May they have a long, long playtime, Lord of toil, when toil is done.
Fill their baby hands with roses,
Joyous roses of the sun!*

This started a train of thought, child though I was, concerning the need to protect children from the trials of life in wartime and in peace and, as I grew older, I agonized over the divergence between child protection and child welfare or wellbeing. For me they were, and still are, largely synonymous, with one crucial difference being that protection is somewhat disempowering while wellbeing presupposes the active involvement of the children themselves. This means that positive thinking flows from a sense of personal self-worth. If a child is not at least partly responsible for creating a positive outlook on her own life and influencing her environment in a corresponding manner, how can she be said to be in a state of wellbeing?

Background to statutory foster care in Botswana

Our children are not just the leaders of tomorrow – they are, more importantly, the people of tomorrow in all sectors of our society, from the poorest and most disadvantaged to the wealthiest and most powerful. With this in mind the Government of Botswana, in 1997, conducted a nationwide consultation on attitudes concerning alternative care for children in difficult circumstances, taking into consideration the growing numbers of orphaned and vulnerable children resulting from the HIV and AIDS epidemic. At the same time urbanization

was dividing families and lifestyles were rapidly changing, leaving relatives to care for children whose parents were either deceased or had relocated for purposes of employment or study. A significant focus of the consultation was on statutory foster care which was a new concept for many. Society reacted with suspicion over alternative foster care.

In 1998 I sat on a panel of interested persons constituted by the Ministry of Local Government to formulate guidelines on foster care for inclusion in regulations of the Children's Act of 1981 (Republic of Botswana, 1981; Republic of Botswana, 1998; Republic of Botswana, 2005). My years of experience in the field of child welfare in England, South Africa, and Zambia enabled me to contextualise the lessons I had learned to the needs of Botswana. In England I was employed as a child care officer in the Northumberland County Council Children's Department dealing specifically with cases of foster care and adoption. In South Africa I worked in the Cape Town Child Welfare Society as a social worker managing situations of children in need of care, statutory fostering, and adoption. Over a period of several years I was also a case committee member and adoption social worker for the Child Care and Adoption Society of Zambia. All of this experience provided me with invaluable knowledge and insightful understanding of child welfare programmes and their role in the development of societies and in enabling populations.

Working in these different environments provided me with a wealth of experience regarding alternative care for children. In any society programmes have to be attuned to the culture and practices of the local people and what I learned in these different settings was that the universal needs of children have to be addressed in as culturally relevant a manner as possible.

The Children in Need of Care regulations were only gazetted in 2005 and have yet to be implemented as the amended Children's Act of 2009 necessitates their contextualization. In the meantime thousands of the country's children are growing up in less than desirable circumstances with parents who are unable to care for them in an appropriate manner or relatives who are overwhelmed by having to care for themselves, their own families, and the children of others. With regard to the latter some are only motivated by the fact that the children bring with them government sponsored food baskets. As a consequence the love and psychosocial support so desperately needed by these young people are sadly lacking.

The statutory foster care programme provides for screening of would-be foster parents who apply to foster children through local council social and community development offices around the country; training those who initially qualify in childcare and development relating to children in need of care; and indepth monitoring of placements on a meticulous and ongoing basis. These services are offered by professional social workers who have been specifically oriented in the foster care process.

Screening of potential foster parents

Initial and ongoing screening of potential foster carers takes into account different aspects of applicants' lives. Issues of spirituality and philosophy of life, relationships within the family, and coping mechanisms are significant indicators of personality and suitability to foster. Role distribution is indicative of the family's level of functionality as is the involvement of kinship systems as well as applicants' reasons for wanting to foster. Acceptance of supervision by a social worker is important as are understanding and tolerance in relation to the role of foster children's birth families. Details of the foster family's place of residence and its surrounds are of significance within reasonable bounds (as warmth and love outweigh physical characteristics).

Training of foster parents

The training of potential foster parents is extremely detailed, but it should be provided in a relevant manner for people of diverse levels of educational attainment. Listening skills, unconditional acceptance, and empathic communication are emphasized as essential components of the parenting process. It includes discussion surrounding child development, self-esteem, attachment, socialization, and separation and loss as these are critical factors in effective parenting of children in need of care, especially those who are bereaved. Other topics deal with the management of difficult behavior, working as a team, and the significance and role of the family of origin. Attitudes towards diversity, child abuse, and the implications of HIV and AIDS further prepare foster parents to adapt to a variety of difficult circumstances.

Particularly significant aspects of the programme include replacement of corporal punishment by appropriate non-violent methods (necessitating a realignment of cultural mindsets for some foster parents!) Alternative forms of discipline, such as the withholding of privileges and enabling children to understand and internalize the concept of logical consequences in their behavioural choices, are discussed with trainees. They are also made aware of the implicit danger of corporal punishment for distressed and traumatized children emerging from a background of bereavement, neglect or abuse and entering an unfamiliar (and probably unrelated) family environment. In this regard the issue of child protection comes to the fore synonymous too with building the young person's self-esteem, heightening awareness of their own inherent worth, and assisting them in making responsible choices. The best interests of the child are paramount (blending protection and wellbeing) and constituting a mantra for the statutory foster care programme.

Monitoring of placements

Monitoring will be frequent and there are specific guidelines for social workers in assessing aspects of the placement from the perspective of both the children and their foster families. Assessable areas cover the child's support base outside the home, birth family involvement and its significance, and relationships between foster family members and the child. Children's behavior (both positive and negative) is significant as are health issues, emotional functioning, school attendance and performance, and the young person's self-image. Of critical importance is the response of the foster family to all aspects of the foster child's cognitive, emotional, and behavioural tendencies in relation to their stage of development.

Although the updated regulations are still in the final stage of formulation it is envisaged that they will require (as with the 2005 regulations) social workers to monitor placements at least once a week for the first month and thereafter on a fortnightly basis. This will have significant resource and capacity implications for local authority social and community development departments as well as non-governmental organization social workers who will be involved in the foster care programme. Furthermore, foster carers might find ongoing assessment of their parenting skills anathema to the cultural belief that parents know best and that professionals should not have to be involved in a home based setting.

Principles of 'matching'

The fact that foster parents will probably be strangers to the fostered child has raised eyebrows in some quarters in Botswana as, culturally, families care for their own (as previously mentioned). However, present circumstances necessitate expansion of the concept of alternative care in the best interests of many disadvantaged and displaced (or misplaced) children. At the same time the principle of matching or ensuring that young people are cared for by those whose circumstances and family composition align as closely

as possible with their own is an important factor in ensuring stability and effective patterns of communication. Furthermore, the threat of dysfunctional relationships with the family of origin and the breaking of kinship ties (possibly on a permanent basis) is hopefully averted or at least rendered less likely to take place in order to facilitate future reunification.

Foster care grant

Although the original drafting committee recommended that foster parents receive a state grant towards expenses incurred in raising a child who is not their own, Cabinet was of the opinion that this would attract those who did not necessarily have the best interests of the child at heart. The explanation that the screening, training, and close monitoring would largely prevent this from happening was insufficient to convince lawmakers of the necessity of this provision. Not only is it expedient on the grounds of fairness and equity, but it also prevents possible disadvantage to the foster child in the event of, particularly, unforeseen lack of necessary resources in the foster home. Thus, in the immediate future, monetary assistance will not be made available although other benefits such as food baskets and clothing that orphaned and vulnerable children might be receiving prior to placement will continue to be provided. The debate rages on (as in many other countries) as to whether the spirit of voluntarism should be compromised or whether the payment of a government grant is morally and ethically prescribed in situations where ordinary people perform what would otherwise be defined as a function of the state.

Reconstruction services

Foster placement may be short term (perhaps only overnight) or longer term (possibly for many years) but it is always classified as temporary unlike the permanence of adoption. In the event, social workers will make every effort to keep children in touch with their families of origin or other relatives. Furthermore, kinship systems will receive reconstruction services, if appropriate, to enable them to have the children returned to their care as expeditiously as possible.



Legal sanction

The Children's Court is the sanctioning authority in the foster care system and every placement is authorized through a court hearing at which a social worker's report justifying the placement is presented. Any movement of the child has to be authorized by the Court and every two years a report has to be submitted to the Commissioner of Child Welfare in order that cases do not become lost in the system. Experience in other countries has shown that long term foster placements can sometimes 'fall through the cracks' and no longer receive supervision on a regular basis, especially if there are frequent changes of professional staff in child welfare agencies.

The 'banking' system

The plan for Botswana, as in societies where the system functions effectively, is to establish, throughout the country, banks of foster parents who have been screened, trained, and suitably prepared to receive children into their homes when necessary. This avoids situations in which appropriate families have to be identified on an emergency basis with inadequate screening, training, and preparation. Furthermore, ongoing group work with foster children, foster parents, and birth families will help to support those involved in the programme and assist them in learning from others in a similar position to themselves.

Last resort versus best option

In my own experience the statutory foster care system, as outlined in this reflective note, makes a significant contribution to child welfare policy in societies around the world. This is partly because families of origin may present with problems necessitating the removal of children to more conducive environments. Although residential care (as is offered by children's homes and places of safety) is a positive option for some, most children tend to thrive in a conducive homely, rather than institutional, setting.

It is important to emphasise that foster care should never be viewed as a last resort but rather the best option for a particular child (for that is what it is). If perceived in a negative light by those who implement the programme (such as social workers) young recipients will also believe that their situation is hopeless and that foster placement is only a step away from a doomed and hopeless future. For some, residential care, as provided through institutions such as the SOS Children's Village programme, may be the best option, especially for large families where siblings should not be separated. Whatever the decision on placement, it should always be made with the children's best interests at heart. However, as effective as the foster care programme might be, there will always be challenges in caring for children, especially other people's children.

It is my belief that statutory foster care will provide an excellent alternative for children in need of care in Botswana given the fact that customary care arrangements are struggling to cope with the magnitude and depth of the problem. Studies conducted by social work students at the University of Botswana demonstrate that children crave personalized care in a home environment rather than that provided in the somewhat more institutional and group setting characterizing community children's homes.

Acceptance of statutory arrangements

One of the negative elements of statutory foster care in Botswana is that little community education and mobilization has been conducted by the state on the grounds of lack of finalization of the legislation and accompanying regulations. I believe this to be a sticking point for wholehearted involvement of the society in the programme when it is finally and officially

launched. Cultural beliefs and social norms are strong adversaries of change even when it is in the best interests of the young who are the lifeblood of every community, both now and in the future. This is an aspect of the process that I believe has failed the children of Botswana.

Concluding Remarks

Charles Dickens, the 19th century English writer, attempted through his novels to highlight the social ills of the day and thus bring about positive change in society. His famous work, *Oliver Twist*, concerns a vulnerable orphan, born in a workhouse or institution for the poor, whose mother had died after giving birth to him. He was raised in this depressing place where children were fed infrequently on small amounts of watery porridge and were always hungry and cold. They had to work for their keep and life was extremely hard. At the age of nine the authorities decided that he should be apprenticed to and fostered by a most unpleasant and cruel chimney sweep. Dickens' account of his court appearance (the equivalent of our modern day Children's Court presided over by a magistrate acting as a Commissioner of Child Welfare) is as follows:

'Mr Bumble, the Council Secretary, called Oliver to enter the courtroom. With a threatening look he said, in a low voice, "Remember what I told you, you young rascal. You must say you are very happy and very much want to live with the chimney sweep do you hear?" He was led into a large room where two elderly gentlemen, the magistrates, were seated behind a desk. One of them was asleep. "This is the boy your worship", said the hardhearted Mr Bumble. The one old man woke up and said, "Oh, is this the boy?" "This is him, sir," said Mr Bumble. "And this is the man who is going to look after him, treat him well, and feed him?" asked the magistrate. "When I say I will, I mean I will," said the chimney sweep with an ugly expression on his face. It was the critical moment of Oliver's fate. The magistrate looked for his pen to sign the court order but could not find it and, as he was searching his desk, he saw before him the pale and terrified face of Oliver Twist, who, despite the threats of Mr Bumble, was looking at his prospective caregiver with an expression of horror and fear. "My boy," said the magistrate in a kindly voice and Oliver, not being used to kindness, burst into tears. "What is the matter? Don't be afraid," said the caring magistrate. Oliver fell to his knees, clasped his hands together, and begged to be sent back to the workhouse, locked in a dark room, and beaten, perhaps even killed, rather than being placed with that dreadful man.'

The care of orphans and vulnerable children has improved in the West since Dickens' day and we, in Botswana, are now trying to ensure that fearful consequences do not befall the children of our country. The statutory foster care programme is an attempt to achieve that through its own inimitable version of 'Thari ya Bana.'

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13 Extent and nature of child poverty in Botswana

Introduction

This article outlines the findings of secondary analysis of the Household Income and Expenditure Survey (HIES) data (CSO, 2004a) which was carried out by the Botswana Institute for Development Policy Analysis (BIDPA). The study was carried out with the aim of obtaining a more in-depth view about the situation of Botswana children than was possible in the original analysis of the HIES, which covered all age groups. The detailed study findings can then be used to support evidence-based programming, and to assist the Government in the allocation of its finite resources to the marginalized groups of the population.

Methodology

The analysis of this study relied heavily on the 2002/03 HIES data. The study examined two ways of measuring poverty – that is, income poverty as well as levels of deprivation faced by children, with the aim of obtaining a more multi-dimensional description of child poverty in Botswana. Depending on the geographical location, for example, even children from better-off households may suffer some deprivations, such as lack of access to sanitation.

Income poverty was measured using the Statistics Botswana Poverty Datum Line (PDL; CSO, 2008a), which represents the value of a basket of five broad categories of consumer goods: – food, clothing, personal items, household goods and housing. The PDL basket comprised 123 items. To find the proportion of households with income or consumption below the PDL, consumption expenditure was used as a welfare measure. Households with an income below the PDL were considered to be poor. In addition, households were also grouped into income quintiles. Income quintiles were derived from assessing the income of all households participating in the survey. To calculate the quintiles, firstly, household income was divided by the household size to obtain per capita income. The per capita income was then divided according to the 5 groups of 20 percent each, the lowest 20 percent being the first quintile which comprised of the poor households (Q1), followed by the next 20 percent (Q2), and the last quintile being the fifth quintile (Q5). This approach is useful for showing the wider impact of poverty on households and children, particularly when applied to other aspects of life, such as access to health or education services.

In addition, deprivations are another useful measure. The study focused on those deprivations measured in the HIES, namely access to water, sanitation, education, shelter and information, in particular ‘severe deprivations’ in relation to these factors. Severe deprivations were defined as follows (UNICEF, 2007, p9):

- Water – children using surface water such as dam/pan, well, river/stream.
- Sanitation – children with no toilet facility of any kind.
- Education – children aged 7–17 who have never been to school.
- Shelter – children living in a dwelling with five or more people per room.
- Information – children aged 3–17 with no access to a radio or television or telephone or computer.

Access to health services was not measured in the HIES, nor were levels of malnutrition. Therefore, other sources were included and used to inform the Child Poverty Study, such as the 2007 Botswana Family Health Survey (BFHS; CSO, 2009a), the 2001 Population and Housing Census (CSO, 2004b), the 2006 Demographic Survey (CSO, 2009b), and the 2005/06 Labour Force Survey (CSO, 2008b). Although the HIES information is somewhat

outdated,²³ it still provides a good reflection of the distribution of poverty in Botswana, both geographically and by the age distribution.

The analysis did not test for statistical significance of any differences shown between girls and boys; however, in UNICEF programming, data are usually shown disaggregated by gender.

Findings

Demographics

According to the HIES, more than two thirds of children live in households with five or more people, and more than half of all households are headed by females, with 56.1% of the girls living in such households (52.3% of boys). The majority of the children live with many members mostly in poor households. More than 55 percent of both girls and boys live in household with five or more members, while 31.2% boys and girls live in households with at least 11 members.

Figure 1 Distribution of children by survival status of parents, orphanhood status and dependency ratio (not mutually exclusive categories) (%)

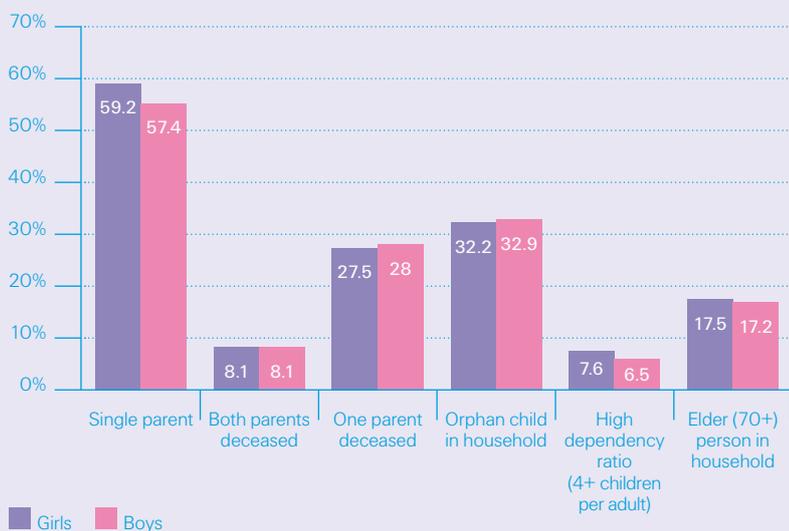


Figure 2 Distribution of orphans by age and sex (%)



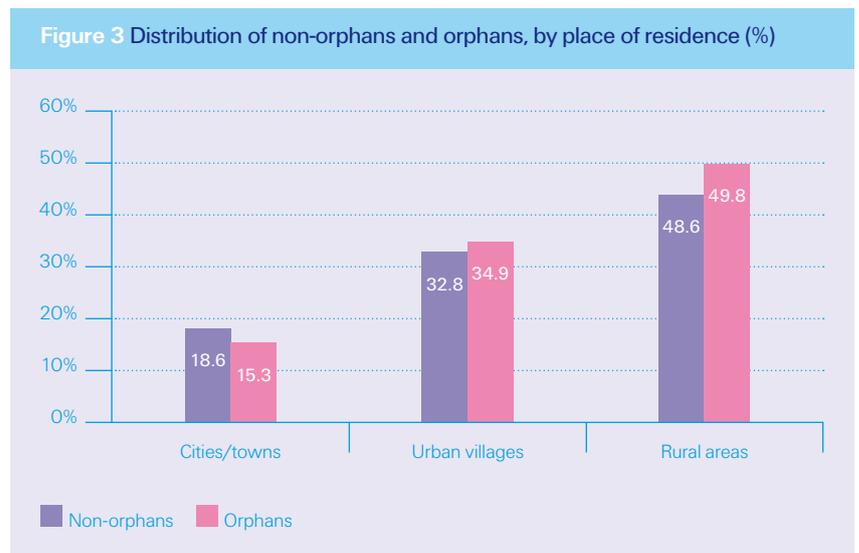
23. It will be interesting to see the results of the 2009/2010 Botswana Core Welfare Indicator Survey (BCWIS) currently being analysed by Statistics Botswana, particularly in view of the fact that the Botswana income Gini coefficient, a measure of inequality, has increased from 0.537 in 2002/03 to 0.61 in 2010 (UNDP 2010). Botswana is therefore one of the 3 most unequal countries in the world after Namibia and the Comoros Islands (UNDP, 2010).

In terms of household composition, more than half of all the children live with a single parent; about 28% of the children have lost a parent; almost one third of the children live in a household with an orphan, and over 17% of children live in a household with a person aged 70 years or older. These categories are not mutually exclusive – for example a child may have lost one or both parents, therefore deemed an orphan, and also live in a household with an older person.

A total of 122,167 children (or 17% of all the children) were orphans, with one or two parents deceased, though only 48,119 orphans were registered for orphan support in 2009 (BIDPA, 2010a). As children grow up, they are more likely to be orphans among children aged 15 to 17 years more than a quarter are orphans.

Rural/urban distribution

Almost half of all the children were living in rural areas. About one third of them lived in urban villages, while the remaining 19% lived in cities and towns such as Gaborone, Francistown or Lobatse. On the same note, the majority (84.7%) of the orphans live in rural areas, including urban villages, while the remaining 15.3% live in cities and towns. Orphans are also more likely to live in potentially poor households, such as large households, or households with unemployed single parents. Almost twice as many orphans (8.1%) live in a household with no adult of working age, as compared to non-orphans (4.6%). Refer to figure 3 for proportions of orphans and non-orphans by area of residence.

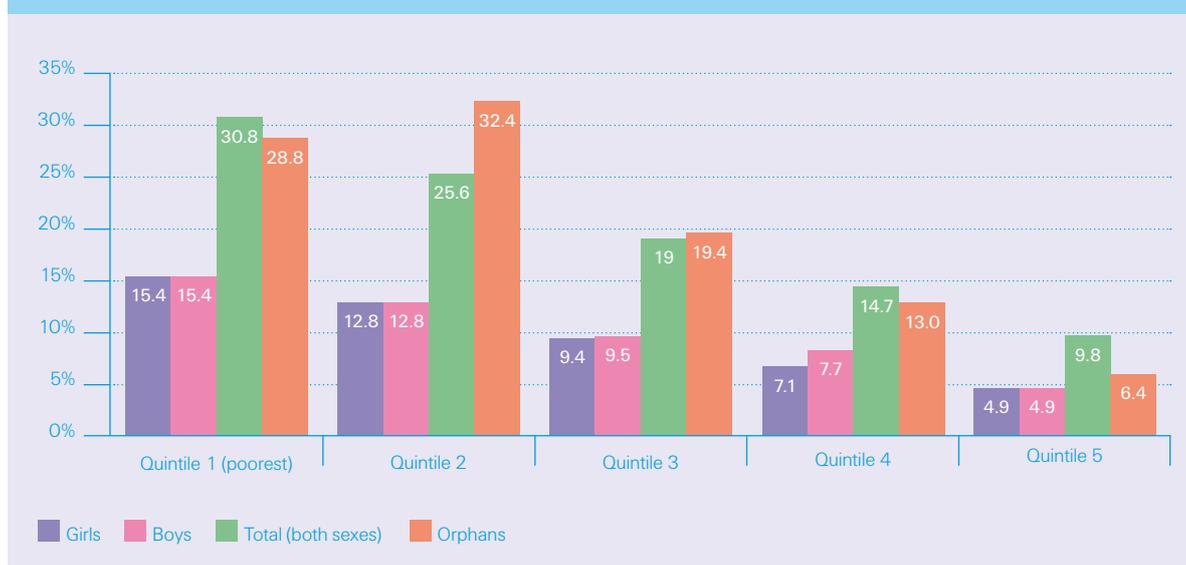


Income poverty

While the data do not allow for within-household disaggregation, it nevertheless allowed for an estimate of child poverty. It was also found that larger households (usually containing children) tended to be more affected by income poverty.

According to HIES, Botswana's overall poverty rate was 30.6% in 2002/03. Data from the Poverty Datum Line used in that survey indicated that 239,430 (32.7%) of the children were poor in 2002/03. About 31 percent of the children lived in households in the bottom income quintile as compared to only 10% of children living in households in the highest income quintile. Higher incomes are therefore associated with a reduction in the number of children; an indication that the majority of children are from poor households. Orphans are

Figure 4 Distribution of children by income quintile and sex (%)

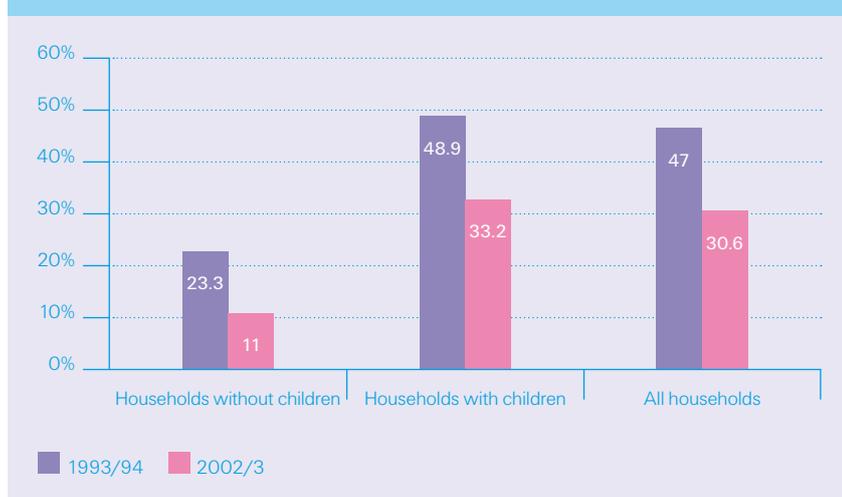


more prevalent in the first and particularly second lowest income quintiles, suggesting that the Orphan Care Programme does make some difference.

Children aged 0–14 years are disproportionately affected by poverty – their poverty rate is higher than that of the national average. The poverty rate is highest in children aged 3–4 years with 44.1% of the boys, and 39.7% of the girls in this age group living in poor households. A large proportion (37.2% girls’ 40.1 boys) of children 0–2 years also lived in poor households.

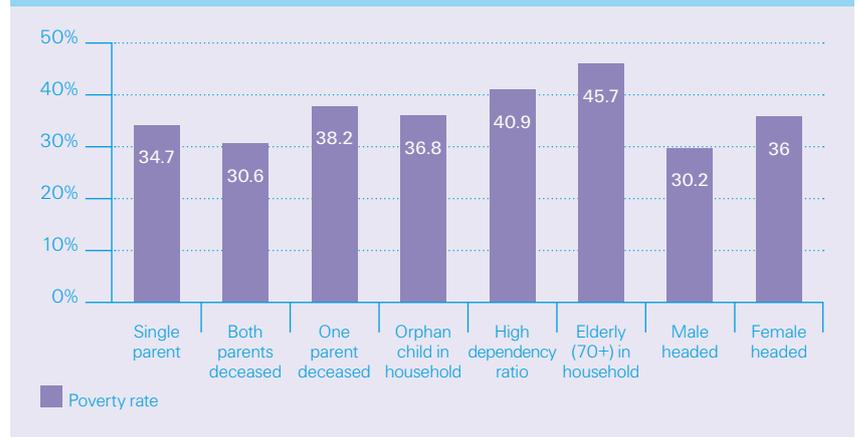
The poverty incidence at household level had witnessed a declining trend between 1993/94 and 2002/03. During this period, the poverty incidence for households without children had significantly reduced by half while that of households with children had reduced only by a third. This suggests that children, who are the most vulnerable members of the population, were less able to enjoy the benefits of the economic growth which Botswana experienced during that period.

Figure 5 Distribution of poor households with and without children (%)



Disaggregating the 2002/03 poverty levels according to various household vulnerability factors, it is apparent that some households are more prone to poverty than others. Particularly vulnerable were those with a member aged 70 years or older, followed by those with a high dependency ratio (where few income earners cared for many non-earners). In addition, female-headed households were more likely to be poorer than male-headed households .

Figure 6 Distribution of poor households with children according to household vulnerability factors (%)



The poverty incidence is inversely related to the education status of the head of the household – the lesser education a head has received, the more likely that the household will live in poverty. In other words, household heads who have never attended school are more likely to be poor. Just over 52 percent of households with children whose heads of household have never attended school were poor as compared to 20.8 percent of those whose household heads had left school. The same trends are observed for all household heads whose education status was high. The reason could be that with no education, household heads are more likely to be unemployed, exacerbating poverty among such households.

Similarly, the parents’ employment status has an impact on childhood poverty; as depicted in the diagram below. Children in households with no parents working (whether there are two parents or one) are likely to be poor.

Figure 7 Levels of poverty according to household head’s education status (%)

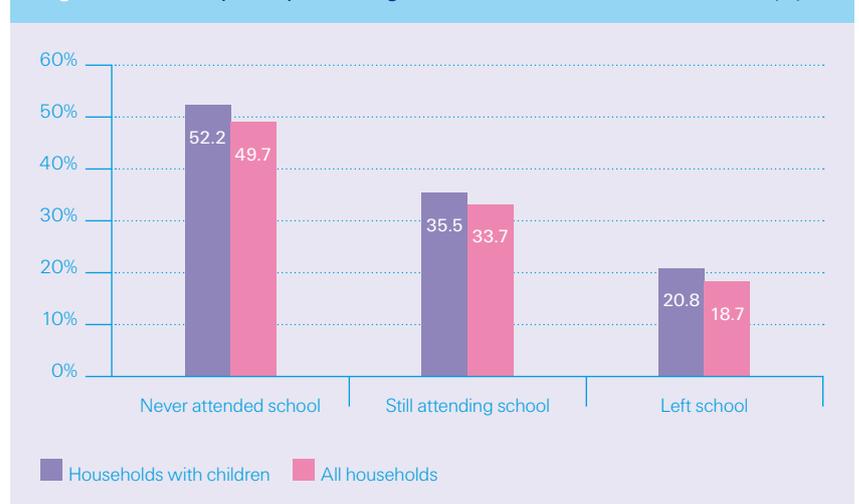
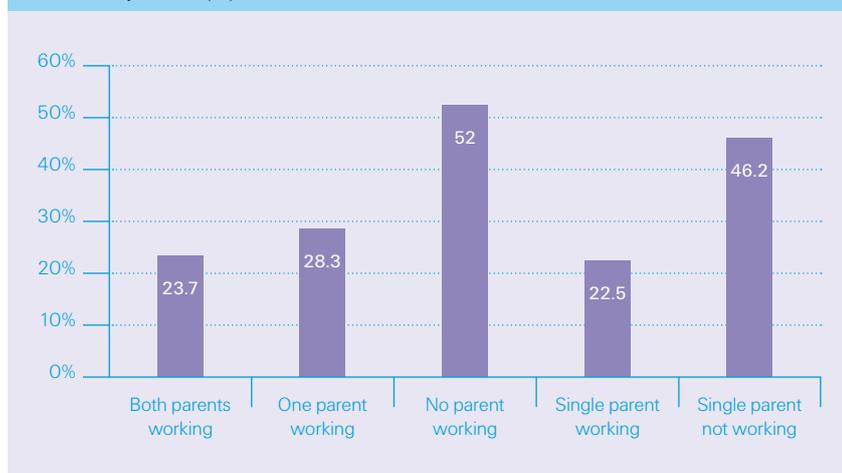


Figure 8 Distribution of households with children in poverty by employment status of parents (%)



Deprivations

Individual deprivations

Examining the HIES data for deprivations, the study found that lack of sanitation is the most severe deprivation faced by children in Botswana, with more than a quarter of the children living in areas without access to any toilet facility whatsoever. Almost 30% of the children use unimproved sanitation facilities. Children living in rural areas are mostly affected by this deprivation, with over 50% of them without access to any toilet facility. On the other hand, over 95% of the children throughout the country have access to safe drinking water.

Almost 23% of children aged 3 to 17 years do not have access to any form of information or communication medium, such as; television, radio, newspaper or computer. The figures for children living in rural areas are highest (35%), particularly those in the rural South-West, where almost half of all the children have no access to any information media.

A total of almost 13% of children live in dwellings with five or more people in a room. Children from rural areas are most likely to face this deprivation (almost 16%), with almost 27% of the children living in the rural South-West being affected.

About 10% of all the children aged 5 to 17 years surveyed in the 2002/03 HIES had never attended school. According to the 2009 Education Stats Brief (CSO, 2009c) which reported on the net enrolment ratio, 14% of the children aged between 6–12 years were not registered as attending school, as well as over 8% of children aged between 7 and 13 years. These figures have dropped, since 2000, from 90.1% and 100% respectively.

Nutrition figures, not covered in the HIES, also showed some cause for concern. Data from the latest Botswana Family Health Survey (CSO, 2007) suggest that malnutrition in children under 5 years of age had increased between 2000 and 2007. Stunting (the most form of malnutrition) prevalence has increased from 23% to 25.9%, underweight prevalence from 12.5% to 13.5%, and wasting from 5% to 7.2%, an increase, within wasting, of over 40%. At the same time, the Ministry of Health, using clinic surveillance instead of population survey data, reported a decrease in malnutrition from 8.7% in 2001 to 4.3% in 2008 (Republic of Botswana, 2010). This requires further investigation.

In relation to the health indicators, also not measured in the HIES, child mortality is a useful indicator. The Millennium Development Goals (MDG) for Botswana, in relation to child mortality, is to reduce infant mortality, for children under the age of 1 year, from 48 per 1000 infants in 1991 to 27 per 1000 infants in 2016 (Republic of Botswana, UNDP, 2004). However, infant mortality has remained steady at 57 per 1000 infants between 2000 and 2007 (CSO, 2009b). Similarly, under-five mortality has increased marginally from 75 to 76 child deaths per 1000 children under five (CSO, 2009b). This steady trend suggests that it may prove challenging to realize child mortality targets.

Multiple deprivations

Almost 400,000 children in Botswana (54.2%) suffer from at least one severe deprivation and 177,908 (almost a quarter of all children) are affected by two or more severe deprivations. As with poverty, children aged between 3 and 4 years are mostly affected by deprivations compared to those in other age groups (see chart 9 and 10).

Figure 9 Distribution of children by age group suffering from at least one severe deprivation (%)

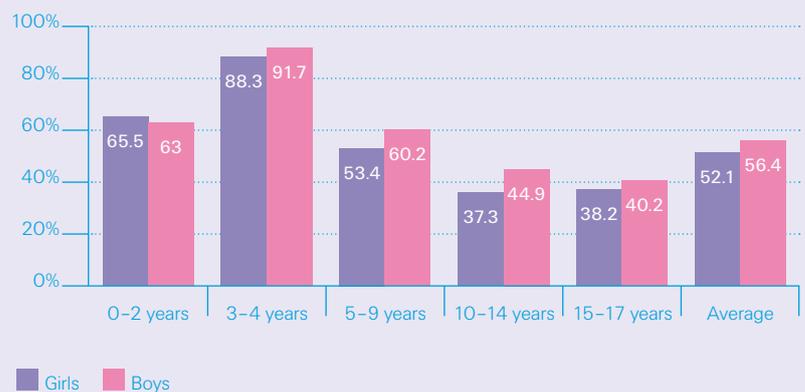


Figure 10 Distribution of children by age group suffering from at least two severe deprivations (%)

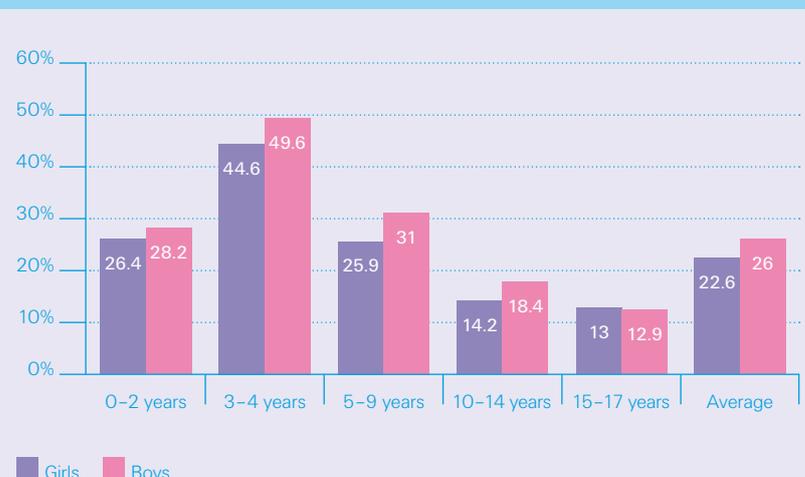
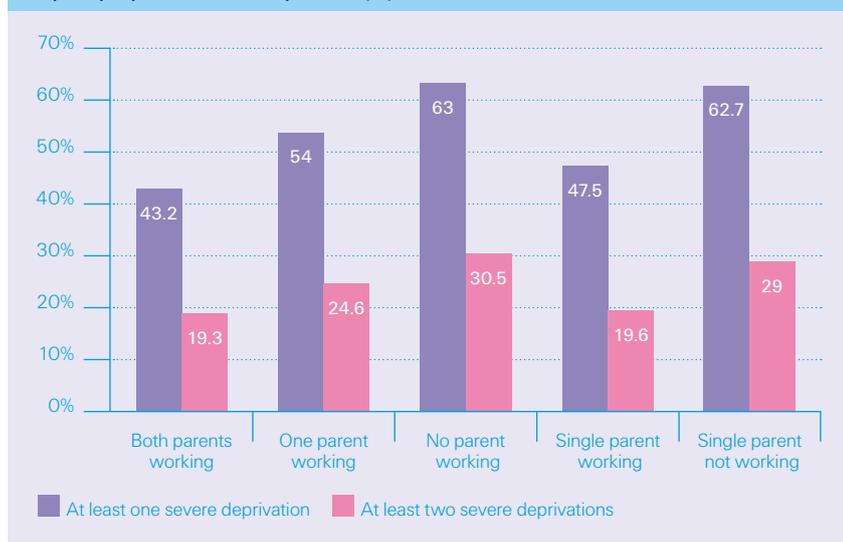


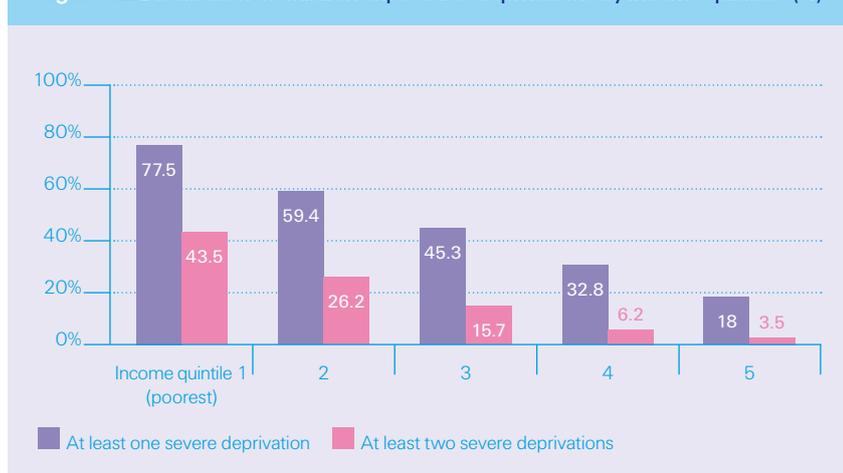
Figure 11 Distribution of children with at least one or at least two deprivations by employment status of parents (%)



The proportion of children suffering from deprivations is also affected by the employment status of their parents, with children in households with neither parent working, nor the single parent not working, being mostly affected.

Income quintiles are also closely related to the chance of a child suffering from deprivations – the lower the income quintile, the more likely that children are exposed to one or more deprivations. Children in the bottom quintile, Q1 (poorest) are the most deprived, while children from the highest quintile Q5 are the richest. Of Q1 children, 77.5% have at least one deprivation compared to only 18% of children from Q5. The same scenario is realized for children with at least two deprivations with Q1 and Q5 registering 43.5% and 3.3%, respectively.

Figure 12 Distribution of children exposed to deprivations by income quintiles (%)

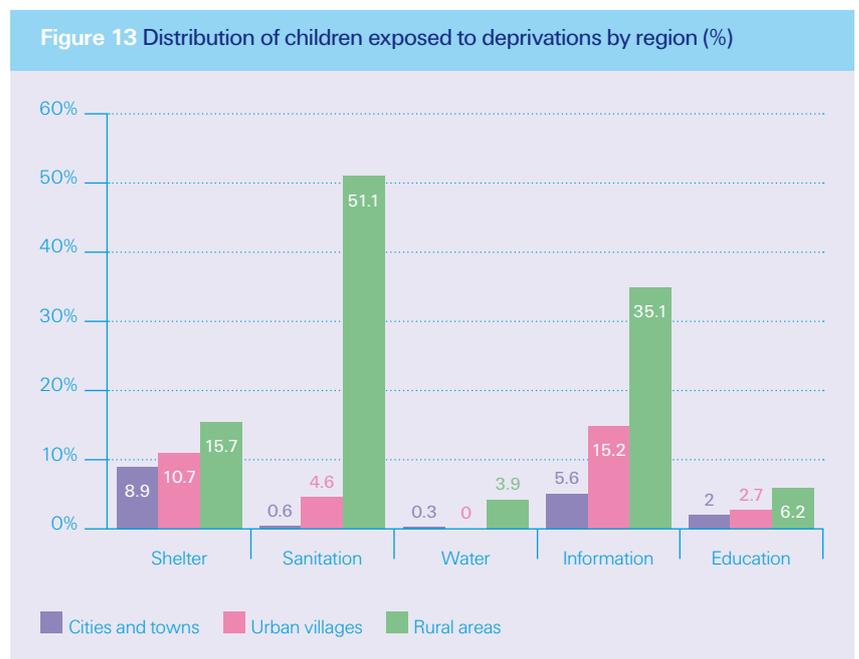


Urban/rural disparities

It has become evident from the data that there clearly is an urban-rural divide among Botswana's population as a whole, and for children specifically, with almost half of all the children living in rural areas. Income poverty is more prevalent in rural areas, where 48.3%

of all households are considered poor. In all regions, the percentage of households with children affected by poverty is higher in comparison to the percentage of all the poor households. The situation is most severe in the rural South-West with 54.8% of households raising children in the poor category, followed by the rural North-West at a rate of 44.1%. Given the fact that the large majority of children in Botswana are living in rural areas these figures are quite alarming.

Deprivations are also more common in children from rural areas; 73.5% of children in rural areas suffer from at least one severe deprivation, compared to 40.9% of those who reside in urban villages and 37.5% of those living in cities and towns. The difference is even more pronounced in children with at least two severe deprivations. Among these children, 41.8% of them reside in rural areas, whereas only 9.7% live in urban villages and 4.5% in cities or towns.



Conclusions and recommendations

It is clear from the data examined in this study that children in Botswana are more vulnerable to poverty than adults, and in particular that there are considerable disparities – between regions, between children living in rural areas and those living in urban areas, and between children from higher income households and those from families whose household income is in the lowest income quintile.

Young children, particularly those aged between 3 and 4 years are at risk of both poverty and deprivations. At this age there is a great chance that this may have long-lasting effects, both in terms of survival (e.g. lack of access to good sanitation) and the general development, where poverty and malnutrition would have an impact on cognitive development. Children, of all ages, living in rural areas are much more exposed to poverty and deprivation than those living in urban areas. Generally, the differences between girls and boys are minor (although the differences were not tested for significance). This suggests that in Botswana girls and boys are equally affected by poverty and deprivations, although children in female-headed households are more likely to be poor. Matters relating to HIV infection, where women aged 15–19 years are twice as likely to be infected as men (CSO, 2009d), were not investigated

in this study. Concerning the income quintiles charts of poverty and deprivations, there appears to be a relationship between poverty and the level of deprivations children face, even though children from higher income quintiles are also exposed to deprivations.

Since the inception of the 2002/03 HIES, a number of developments have taken place with regards to the welfare of children in Botswana. This includes, among others, the enactment of the Children's Act in 2009 (Republic of Botswana, 2009). The Children's National Consultative Forum was set up to address grievances of children in relation to child welfare issues. This notwithstanding, much remains to be done.

Based on the observations found in this study, the authors recommend that a comprehensive analysis of vulnerable children in the country be carried out. This should use data from more recent surveys, such as the Botswana Family Health Survey and the Botswana Core Welfare Indicator Survey, to build a solid evidence-based strategy on matters relating to children in Botswana. Further, other data collection methods should also be used, such as qualitative data collection, to ensure that stakeholders fully appreciate the situation of Botswana children. Lastly there it is important that recent data on the Core Welfare Indicator Survey is re-analyzed so as to provide a more recent picture of the situation of children in Botswana.

Wider policy recommendations

Efforts need to be strengthened to create employment and other economic opportunities in rural and poor areas of Botswana, and also to address other aspects related to child poverty. Since a large proportion of children suffer from non-income deprivations such as shelter, sanitation, water, information and education, it is necessary to enhance the social development of the country to ensure that all children in every locale could be beneficiaries in the increasing wealth of the country. Lastly, the effectiveness of the educational system needs to be improved, in order to attract all children – since there appears to be a clear association between lack of education and poverty.



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14 A case study of orphan and vulnerable children's programmes in Kanye administrative authority and Moshupa sub-district, Botswana

Introduction

This case study discusses challenges and problems that local authority service providers, namely district councils in Botswana, have to contend with due to the effects of the post-global economic downturn-induced expenditure cuts. When the crisis hit in late 2008, diamond-dependent economies such as Botswana faced challenging fiscal circumstances that resulted in budget deficits. Since the 2008/09 fiscal year, Botswana has posted budget deficits that necessitated major expenditure cuts. The cuts disproportionately fell on social welfare programmes such as the Orphaned and Vulnerable Children (OVC) programme. These cuts exacerbated OVC's poor socio-economic situation, particularly with regard to access to food and schooling. This case study makes an assessment of implementation challenges and opportunities of the OVC programme under situations of fiscal stress in the Kanye Administrative Authority and Moshupa Sub-District in southern Botswana. The article also provides general policy recommendations.

Background

The OVC programme is meant for children who are considered to be at risk. In the Botswana context, a child means a person who is under the age of 18 (Republic of Botswana – ROB, 2009). This is the same definition used in the Children's Act of Botswana (2009). An orphan on the other hand is 'any child below the age of 18 years who has lost either one parent or both parents either biological or adoptive' (Ministry of Local Government – MLG, 2010a, p. ii). A vulnerable child is any child below the age of 18 years who; (i) lives in an abusive environment; (ii) lives in a poor family and cannot access basic services; (iii) heads a household; (iv) lives with a sick parent(s) or guardians; (v) is HIV-positive; (vi) living with a disability, and/or chronic illness; or (vii) lives outside family care (MLG, 2010b). Although the orphans and vulnerable children are both at risk, this study focused on orphaned children.

The orphan problem is not a new phenomenon in Botswana, it has been in existence since the beginning of time. That is, the death of parents has endured over the ages and society has always devised means to address the problem. In this regard, family members, particularly in the extended family settings, took care of orphaned children. In traditional African societies, institutions such as orphanages have never been intervention strategies. In Botswana, for example, orphans were taken care of within family structures until the outbreak of the HIV pandemic, with the first case reported in 1985. Despite interventions such as provision of public education and free HIV testing, the pandemic continues to take lives and, in the process, robs children of their parents (UNICEF, 2005; Maundeni, 2009). However, this is not to say that the orphan problem is exclusively caused by HIV-related deaths in Botswana. Nonetheless, it is undeniable that HIV-related mortality is the leading contributor to the orphan problem in Botswana (MLG, 2008).

The OVC programme

Despite the rising number of HIV-related deaths and orphans, there were no public orphan programmes until 1999. As the gravity of the matter became apparent, the government was forced to take action. Consequently, in 1999, the government of Botswana, in collaboration with the United Nations Children's Fund (UNICEF), developed an orphan care program commonly known as the Short Term Plan of Action (STPA) on the care of orphans. The

STPA was supposed to run from 1999 to 2003 but has been extended because, at the time of writing this article, the OVC policy had not been officially launched. Amongst other things, it aims to 'facilitate identification, assessment and registration of orphans regardless of the cause of death of parents' and 'ensure an efficient and effective system for providing material and emotional support services' to them (MLG, 2007a).

Thus, the above legal-institutional framework led to the inauguration of the National Orphan Care programme in 1999 (Government of Botswana - GOB, 2008). Amongst others, the programme provides food baskets, psychological counselling and waivers for school fees for orphans. Over years, the orphan population has grown and then fallen as next illustrated. In December 2005, there were 52, 537 registered orphans in the OVC programme (ibid). The figures slightly went up two years later and, in this regard, there were 53, 309 orphans in 2007 (MLG, 2007b). By December 2010, and largely owing to the effects of anti-retroviral drugs, the figures dropped to 42, 969 (Interview with an officer at the Department of Social Services, 20th February 2011). However, it is notable that although the number of orphans has fallen, actual expenditures have increased, largely, due to rising food prices. This has put a serious strain on the OVC programme's resources. This observation was corroborated by one interviewee at the National AIDS Coordinating Council's (NACA) office on 8 March 2011. The officer stated that even though the number of orphans had decreased over the years, the OVC programme cost had increased and that the government may be unable to fund it in the future (Interview 1, 8 March 2011).

At a national level, the OVC programme is the portfolio responsibility of the Ministry of Local Government, under the Department of Social Services (DSS). The DSS has, amongst others, the responsibility to coordinate all national programs and activities on child protection and well-being and also houses the OVC programme. The OVC programme is decentralised to councils, both rural and urban. At the district level, there is the Department of Social and Community Development (S & CD) and within the department, there is a Social Welfare unit that specifically deals with the OVC programme. Funding for the OVC programme does not follow the conventional method; thus, it is externally funded through NACA. Further underlying the unconventionality, NACA funds the programme under the development budget component (notably, in strict budgeting terminology, this is a recurrent item). In this regard, various S & CD departments in local authorities produce project memos that are collated and submitted to the Ministry of Local Government (MLG). In turn, the MLG submits the same to NACA as a consolidated budget request. After NACA had considered the request, subject to ceilings that are set by the Ministry of Finance and Development Planning (MFDP), the consolidated budget is forwarded to the MLG. The MLG thereafter, gives districts their budget allocations and the same, afterward, makes allocations to S & CD departments in its areas of jurisdiction. Overall, it emerged from interviews conducted at both the Kanye Administrative Authority and Moshupa Sub-District that the S & CD operatives were not happy with the size of the allocations. Thus, they contended that there was often a huge divergence between the amount of money that they budgeted for and what they received at the beginning of the financial year.

Fiscally-challenged times and the funding of the OVC programme

Like all public programmes, the OVC programme is 100% funded by the government through NACA. Thus, it is sensitive to the fiscal health of the government. During lean times, which are characterised by dwindling resources and expenditure cuts, it suffers funding challenges. Since the 2008/09 fiscal year, the Botswana economy has been experiencing revenue challenges due to the onset of the global financial crisis. To illustrate, the country

failed to sell a single diamond in November 2008 (Gaolathe, 2009). Thus, as the global financial crisis deepened, this translated into a global economic downturn that resulted in revenue squeezes, hence, budget deficits. The economy recorded the following deficits: P4.96 billion [2008/09], P9.3 billion [2009/10] (*ibid*), 12.12 billion [2010/11] and P6.93 billion [2011/12] (Matambo, 2010; 2011).

The cumulative effect of the deficits has been expenditure cuts, particularly, for social programmes. At the same time, when reading the 2011/12 Budget Speech on 7 February 2011, the Finance Minister, Kenneth Matambo, told parliament that the government could not sustain budget deficits any longer due to their negative macro-economic effects. Thus, he stated that the government intended to have a balanced budget during the 2012/13 fiscal year and post surpluses during the remainder of the National Development Plan period (2010/11-2015/2016). Specifically taking about fiscal prudence, he said, “we are committed to doing more with less and proving that we can live within our means” (Matambo, 2011, p. 19). Notably, a balanced budget can only happen if the economy grows in real terms by 6.8 percent and 7.1 percent in 2011 and 2012 respectively and the mining sector, the largest single contributor to the Gross Domestic Product, grows by at least 15 percent and 6.2 percent respectively over the same period as per present forecasts. Therefore, unless the revenue situation improves, a balanced budget in 2012 and beyond is only achievable through expenditure cuts. In this regard, expenditure cuts, as has been demonstrated in the past (e.g., see Botswana Press Agency – BOPA, 2009) are easy to effect on social programmes such as OVC, destitute allowances and merit goods such as education. Given these challenging fiscal times, the study sought to answer the following questions: (i) what are the implications of fiscal stresses? and (ii) how should the OVC programme be positioned to deal with financing challenges?

Data collection methods

In order to answer the foregoing questions, the study employed a case study design. Due to time and budget constraints, the study focused on two cases, these are the Kanye Administrative Authority and Moshupa Sub-District. Both primary and secondary data were used in this study. Primary data was collected from structured interviews with key informants. The informants were purposely selected because they were adjudged to be best placed to answer the questions as practitioners of the OVC programme. To structure the questioning, an interview guide was used (see below).

- Q 1 What is the legal definition of an orphan?
- Q 2 When was the programme inaugurated?
- Q 3 Rationale/Objective of the programme?
- Q 4 Is the programme a stand-alone entity? Any sister programmes?
- Q 5 What is the programme’s current case load?
- Q 6 How much, in Pula terms, has been allocated to the programme during the past 5 financial years?
- Q 7 What are major implementation issues? Challenges?
- Q 8 Overall, would say that the programme is effective?
- Q 9 Is the programme sustainable?
- Q 10 What major improvements would you recommend?

In order to ensure a good response rate and favourable environment, the interviewees were allowed to freely respond to the questions and the interviews were anonymous.

The interviews were conducted on two separate days; 22 February and 4 March 2011 with eleven S & CD officers (Social Welfare unit); five and six at the Kanye Administrative Authority and Moshupa Sub-District respectively. The interviewees in both places were female, however, there were male S & CD officers but were not assigned to the Social Welfare unit during the interview times. As a corroboratory measure, an interview was held with the Chief Executive Officer of the Kanye Administrative Authority.

After interviewing the S & CD officers at both the Kanye Administrative Authority and Moshupa Sub-District, it became apparent that NACA was a key player in the OVC programme. Hence, an interview was conducted at the NACA office on 8 March 2011. The NACA officer provided information on the financing aspects of the OVC programme and emerging issues as a result of the government's fiscal stresses.

Findings

The line of questioning did not follow the sequence depicted in the interview schedule because the S & CD interviewees concentrated on what they thought were critical questions. In this regard, responses to topical issues are next summarised.

(i) Case-Load: Although past figures were unavailable to make year-to-year comparisons, a majority of respondents felt that the caseload was lighter in absolute numbers, mainly, due to the provision of free ARVs. However, the OVC programme was said to be expensive in relative terms due to the escalating prices of food and other items. At the same time, bad practices such as price discrimination (some merchants allegedly charged OVC programme beneficiaries higher prices as compared to other customers) were cited as major causes of the high programme cost. Finally, the lack of a means-tested approach in the registration of orphans was said to unnecessarily swell the orphan population. In this regard, one respondent complained that upon the death of parents, some relatives shirked their responsibilities and were only keen to collect food rations (Interview 3, 22 February 2011).

(ii) Financing: Given fiscal stresses at the national level due to the effects of the just-ended global downturn, the OVC programme, like others, was reported to be faced with serious financing challenges. Thus, one respondent complained that NACA had been cutting their budgets, resultantly, the S & CD department had been forced to review food baskets, amongst other things, to contain costs (Interview 4, 4 March 2011). Meanwhile, the Southern District Council has had to bridge the gap by dipping into its resources. In this regard, the NACA officer conceded to the budget cuts and stated that same were forced upon NACA due to budget ceilings that were set by the Finance Ministry.

(iii) Implementation issues/challenges: There are many but the key ones related to the lack of a means-tested approach in orphan registration and blatant abuse of the programme by some care-givers. Regarding the means-tested approach, the respondents complained that every orphaned child was automatically registered into the OVC programme. Thus, even relatives who were gainfully employed, hence able to help orphaned children, simply offloaded them onto the S & CD department. In this regard, the orphans became '*bana ba ga mmaboipelogo*' (social workers' children). Regarding abuse, there was expressed a view that despite monitoring, the programme was abused, particularly, food baskets. For example, food items either benefited non-beneficiaries or were bartered for alcohol.

(iv) Programme effectiveness (i.e., how well does a programme achieve its objectives?): Overall, it was held that the programme was effective in terms of delivering key objectives

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such as the provision of material support to orphans. However, the emotional support component was faulted because some care-givers were reportedly only interested in material support, particularly, food baskets. Also, it was stated that when some orphans exited the OVC programme, they went straight into the destitute programme, hence, becoming life-long S & CD clients. Relatedly, it was stated that some exited OVC were also enrolled into home-based care, thus, further increasing the S & CD caseload.

(v) *Programme Sustainability and Recommendations*; Most respondents asserted that the programme, in its present set-up, was unsustainable. Thus, the respondents argued that there was a need to re-look at its financing, particularly the possibility of budgeting for the OVC programme under the normal council budget and partnering with non-state actors. In this regard, their main recommendations were:

- a) A means-tested orphan registration system; this is to rationalise the caseload because every orphaned child is invariably enrolled into the OVC programme;
- b) Stricter monitoring of the OVC programme; reportedly, abuse of the programme escalates programme costs, hence, this will lead to cost containment;
- c) Reviving ages-old traditions such as 'it takes a village to raise a child'; this is meant to treat orphans as our own not the social worker's children '*bana ba ga mmaboipelego*';
- d) Enactment of a permanent OVC policy; it was noted that the programme is everlastingly run on Short Term Plans of Action on the care of orphans, hence, a need to formulate a permanent orphan policy. In addition, it was recommended that synergies must be developed between the Policy and others; e.g., National Youth Policy.

Conclusions and recommendations

Inarguably, the orphan problem is a drain on limited fiscal resources which suffered a setback due to the just-ended global economic downturn. Even though the global economy, including Botswana's, is recovering, challenges remain (see UNECA & AU, 2011). Budget deficits are an order of the day, therefore, necessitating expenditure cuts. Botswana, in a bid to restore fiscal prudence, has announced plans to embark on an austerity programme, therefore, the 2012/13 budget will have to be balanced. Thus, while the economy has been run on red ink (deficit) for the past three years, the government wants to substitute the red for black in 2012 (Bothale, forthcoming; MFDP, 2011). However, this can only happen if the revenue situation improves. Thus, unless the situation markedly improves, expenditure cuts will be ordered. Consequently, social programmes, e.g., OVC, will suffer the deepest cuts. Therefore, given this eventuality, there is a need to effect reforms to position the OVC programme to deal with expenditure cuts. Therefore, the foregoing recommendations, informed by the experiences of the respondents, are both appropriate. Nonetheless, to this list could be added the following: (i) the introduction of a child grant (ii) increased visits to care-taker families; and (iii) penalties for abusing the OVC programme.

15 A child support grant for Botswana?

Introduction

In 2009/10, the Department of Social Services in the Ministry of Local Government commissioned an exercise to elaborate a social development policy framework for Botswana. Among the recommendations of this exercise was the possibility of establishing a Child Support Grant (CSG) in Botswana, the purpose of which would be to curb the hunger, malnutrition, social exclusion and other forms of deprivation to which many children are vulnerable, especially in poorer families and most seriously in their pre-school years, with potentially lifelong consequences. Such a programme would involve payment of a regular monthly cash grant, (adjusted annually for inflation), to the primary caregivers of children.

A CSG has been implemented in two of Botswana's neighbours, South Africa and Namibia. The South African CSG was initiated in 1998, and now provides R250 per month to children up to their 18th birthday, covering over 10 million claimants, equivalent to two-thirds of all children. The grant has been shown to have very positive impacts on poverty, including a reduction in child malnutrition, improved school enrolment and attendance, and increased willingness of carers to take up employment. Namibia's more tightly targeted Child Maintenance Grant (CMG) provides N\$200 per month for the first child up to age 18 plus N\$100 per month for each of up to six additional children, and covered just over 86,000 children by December 2008. Though not formally evaluated, the CMG has been shown to be associated with reduced poverty incidence and severity in Namibia.

A preliminary costing exercise for a CSG in Botswana suggested that providing P100 per month to all 0–17 year-olds in 2010 would cost P1.1 billion or 1.2% of GDP. Despite adjusting the level of the grant for inflation thereafter, cost relative to GDP would fall to 0.7% by 2020. These costs could be offset by adjusting expenditure on other social protection programmes for children, which would be made partially redundant by the grant, and could be reduced further by focusing the grant on children in their earlier years when they need it most.

Background

Botswana, as one of Africa's poorest countries at Independence in 1966, has achieved a remarkable economic transformation to upper middle income status and a reputation for sound governance. Mineral wealth, mainly from diamonds, has been wisely invested in economic and social infrastructure and human resources, resulting in impressive advances against most social indicators. Nevertheless, Botswana's new wealth is unevenly distributed and many citizens are marginalised economically, socially and/or geographically. The poverty headcount at 30.6% in 2003 has been falling, but remains high for this income level (Government of Botswana (GoB), 2008). Structural poverty and vulnerability are aggravated by periodic drought and an HIV prevalence rated second only to Swaziland's (UNAIDS, 2010: Annex 1). Women, children and the Basarwa (Bushmen or San) are especially marginalised, and there are particular concerns about social pathologies affecting the youth. While short-term growth has been hit hard by the global economic downturn, a longer-term question is how reliance on foreign exchange from diamond exports (based on diminishing diamond reserves) can be reduced given the structural disadvantages of a small domestic market, competition from neighbouring South Africa and low agricultural productivity.

Botswana has a strong and long-standing commitment to state-led social protection. Programming for poor, vulnerable and excluded groups is comprehensive by African

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standards, while efforts to tackle HIV/AIDS and its impacts have been outstanding. The Government recently commissioned an exercise to elaborate a social development policy framework for the country. Supported by UNICEF and the Regional Hunger and Vulnerability Programme, this reviewed the status, as of mid-2010, of Botswana's social protection policies and programmes within their broader social development context, examined their effectiveness, assessed the challenges they face, and made recommendations for possible future directions (Turner, Devereux, Ellis *et al*, 2010a; Turner, Ellis, Freeland *et al*, 2010b). Ten main social protection programmes were reviewed: community home-based care, OVC programmes, primary and secondary school feeding, vulnerable group feeding, the destitutes programme, state old age and war veterans' pensions, the remote area dwellers programme and labour intensive public works (*'Ipelegeng*). Together these reach approximately 900,000 people or half of the total population, although 700,000 of these are beneficiaries of the universal school feeding programmes or vulnerable group feeding. Of the remaining seven programmes, none reaches more than 5% of the population.

As Turner *et al*, (2010a) noted, Botswana is not short of policy in the social development arena. This reflects consultative processes ranging from traditional community gatherings to regional and international policy frameworks including the SADC Code on Social Security and the AU Social Policy Framework. 'Vision 2016', articulating national aspirations fifty years into Independence, aspires to 'a compassionate, just and caring nation' in which poverty is eradicated, safety nets are in place for the needy and quality social services are available to all. Pathways to these goals are set out in a national poverty reduction strategy and development plans, alongside sectoral policies on rural development, population, gender, youth, health and HIV/AIDS. Specific social protection policies cover destitute persons, needy and vulnerable families, OVC, people with disabilities and remote area dwellers. So far, however, there are few constitutional rights to social protection in Botswana.

Among the recommendations made by Turner *et al*, (2010b), adoption of a Child Support Grant (CSG) was identified as one possible way for social protection to be promoted as a right in Botswana. A CSG provides one means of making a broader-based assault on poverty, vulnerability and inequality than is offered by the patchwork of existing social assistance measures. Children, especially in their early years, are particularly vulnerable to hunger, malnutrition, social exclusion and other forms of deprivation, the impacts of which can be life long, and yet many fall through gaps in the current provision. Providing a regular monthly cash transfer to primary carers has been shown to be effective in combating multiple dimensions of child poverty, especially when linked to complementary child-focused social services such as child nutrition and health. Channelled through primary carers, a CSG can also offset the costs to parents or other carers of bringing up children and so can help reduce poverty at the household and family levels, and bring positive gender impacts by giving the majority of carers who are women more control over their lives and livelihoods as well as that of their families. By making production of a birth certificate a condition of eligibility for the grant, a CSG can also stimulate the registration of births.

Child grants in South Africa and Namibia

In 1998, in response to widespread hunger, malnutrition, social exclusion and other forms of deprivation amongst children of poorer families, the South African Government adopted proposals put forward by the Lund Committee for a CSG at a level of R 100 per month for ages under seven. It was decided to focus initially on the earliest years of childhood because, having had access to health services at birth, children tended to have no further contact with public institutions until they attended school (Lund, 2008).

The South African CSG replaced the long-standing State Maintenance Grant for poor mothers and their children, which had been largely inaccessible to the African population, and involved a simple means test based on the income of the primary caregiver and her/his spouse or partner, and with differentials for urban/rural location and for type of dwelling unit. In the initial years of the grant a range of further requirements and conditions was introduced, many differentially applied at provincial level, which severely restricted take-up of the grant. For instance, carers had to provide proof of immunisation and health clinic registration, efforts to secure employment or join a development programme. For single carers, there was an additional requirement of proof of efforts to obtain maintenance from the other parent. Consequently, by 2000, less than 10% of poor children were receiving the grant – even fewer in poorer provinces (Samson, Van Niekerk & Mac Quene, 2006).

Following the 2002 report of the Committee of Inquiry into Comprehensive Social Security (‘the Taylor Committee’) which reviewed gaps in South Africa’s social security system, these onerous conditions were regularised and relaxed and the age limit extended to 14. By January 2005, two thirds of all 0–10 year-olds were eligible for the grant and take-up rates exceeded 70%. By 2007, over 8 million children were receiving the grant, although many more were excluded by failure to adjust income thresholds for eligibility in line with inflation until 2008. (Samson *et al.*, 2006; Hall, 2010) As of May 2010, the South African CSG provides R250²⁴ per month for children up to their 18th birthday, covering over 10 million claimants or two-thirds of all children.

Despite its early setbacks, the CSG has been a resounding success in tackling child poverty in South Africa. It is generally well targeted on poorer households in poorer areas, while less poor eligible households tend not to bother to apply. The grant is mainly spent on food and education. It has curbed child hunger and increased school enrolment and attendance rates even though these were already high, such that its receipt appears to decrease the probability that a school-age child is not attending school by more than half. Children benefiting from the CSG in South Africa have a significantly improved height for age, which in economic terms suggests increased earning potential throughout their adult life and consequently a very positive rate of return on CSG payments. There is no evidence of negative effects on employment or labour force participation – indeed, the CSG is strongly linked to increased willingness to take a job if offered one. These positive effects were stronger for women, who made up the vast majority of recipients, and suggest that fears that the grant would create ‘dependency’ were not borne out in practice (Williams, 2007; Agüero, Carter & Woolard, 2007).

Namibia’s Child Maintenance Grant (CMG) has its origins in the racially differentiated South African State Maintenance Grant of the pre-Independence period, and was equalised across ethnic groups in 1996. The CMG provides N\$200 per month for the first child up to age 18, plus N\$100 per month for each of up to six additional children. The grant is more tightly targeted than its South African counterpart. To qualify, an applicant must be a biological parent with a gross income under N\$1000 per month, whose spouse is receiving a pension or disability grant, or has passed away, or is serving a prison sentence of 3 months or more (GON, 2008). By December 2008, following a government and World Food Programme campaign to register vulnerable children in six northern regions, the CMG was reaching 86,086 children, an approximately ten-fold expansion of coverage since 2003. In all, just over 11 percent of Namibian under-18s benefit from the CMG or the much less widely distributed Foster Care Grant (Levine, Van Der Berg & Yu, 2009).

24. An increase to R270 per month, effective from October 2011, was announced in the recent budget.

Unlike Namibia's Old Age Pension, the nominal level of the CMG has remained constant since 2000, during which period its real value has declined by approximately half. Combined with the grant's poor uptake in the populous north of the country prior to 2006, itself due to prospective claimants' difficulty in providing proof of eligibility and a general lack of awareness about the grant, this might be expected to limit its overall effectiveness in combating child poverty and vulnerability (Levine *et al.* 2009). To date, the impact of the CMG has received much less analytical attention than the South African CSG. Nevertheless, Levine *et al.* (2009) provide evidence, based on the 2003–04 Namibia Household Income and Expenditure Survey data, that the grant has had a significant effect in reducing poverty incidence and the depth of both poverty and extreme poverty in Namibia.

A Child support grant for Botswana?

In Botswana, a CSG would provide scope for cost-reducing adjustments to be made to several existing programmes and beneficiary numbers to be reduced on others. By curbing the vulnerability to shocks that comes with poverty, it would substantially limit the costs of providing emergency relief in the event of shocks and disasters such as drought. The design of a delivery system for a CSG in Botswana would further provide a good opportunity for cost-saving through the ICT-based developments, including an enhanced identification and central registry system and the linking of delivery with measures to promote financial inclusion.

For maximum impact a CSG would need to be closely linked with other social development programmes, such as nutritional support for pre-school children and community development initiatives aimed at mobilising communities around making best use of the opportunities that the grant provides. In providing the space for carers or poor working age women and men to seek employment and invest in small businesses, the grant would be likely to have positive gender impacts.

Gross costs of some alternative options for a CSG projected to 2020, are illustrated in Table 1. It is assumed that the grants are universal within the specified age category, paid at a level of P 100 per month in 2010 and rising thereafter roughly in line with the consumer price index, with operational overheads beginning at 20% of transfer value and falling to 10% in 2020 as cost-efficiency improves. A CSG for the 0–6 age range would cost P395 million or 0.4% of GDP in 2010, falling to 0.3% of GDP in 2020. Broadening the age range to 0–11 would increase cost to P714 million or 0.8% of GDP in 2010, falling to 0.4% of GDP in 2020, while a CSG for all children up to their 18th birthday would cost P 1.1 billion or 1.2% of GDP in 2010, falling to 0.6% of GDP in 2020.

These costs are cited in 'gross' terms because they take no account of recovery of a portion of this expenditure through the tax system, which in Botswana would be mainly through a combination of income tax and value added tax. A detailed evaluation of the Basic Income Grant (BIG) pilot in Namibia in 2008–09 noted that a scaled-up programme involving a transfer of N\$ 100 monthly to all non-pensioners (aged 0 to 60 years) in the country would carry a gross annual cost of N\$2.3 billion. However, net cost accounting for automatic recovery of a portion of the grant via the tax system, mainly from better-off recipients, would be lower at N\$ 1.2 to 1.6 billion – or 2.2 to 3.0% of GDP – depending on the mix of direct and indirect taxation adjustment used to finance the grant. This was considered to be (a) affordable based on an unutilised additional taxation capacity in Namibia of 5% of GDP, and (b) sustainable because the BIG's demonstrated capacity for positive effects on human capital formation and on the local and national economy would further reduce relative net costs over time (Namibia BIG Coalition, 2009).

Table 1 Universal CSG in Botswana: projected gross costs, 2010–2020 (current prices)

Population ¹	2010	2015	2020
Total	1,822,859	1,947,806	2,082,106
0–6 years	274,192	319,322	312,988
0–11 years	495,554	501,190	541,307
0–17 years	741,792	763,654	764,220
Transfer per month (P) ²	100	130	170
Total cost per P1 transferred	1.20	1.15	1.10
GDP (P million) ²	91,881	159,769	277,816
Options:			
• Child support grant, 0–6 years			
Total gross cost (P million)	395	573	702
— as % of GDP	0.4%	0.4%	0.3%
• Child support grant, 0–11 years			
Total gross cost (P million)	714	899	1215
— as % of GDP	0.8%	0.6%	0.4%
• Child support grant, 0–17 years			
Total gross cost (P million)	1068	1370	1715
— as % of GDP	1.2%	0.9%	0.6%

1. Based on GOB, 2005c. 2. Based on GDP and inflation projections in IMF, 2010.

In terms of income distribution and tax base, Botswana and Namibia are broadly comparable. Assuming that a similar proportion of the grant is automatically recovered in the form of taxes as is estimated for Namibia, total net cost to the exchequer in Botswana might fall somewhere between 50% and 70% of the gross costs projected in Table 1.

Even at net cost, however, it is recognized that a universal CSG would represent a substantial additional commitment to social protection at a time when government finances are under pressure and face an uncertain future. There are however a number of ways in which the fiscal impact might be further mitigated:

- The introduction of a comprehensive national CSG would provide scope for reducing the costs of some of Botswana's present social protection programmes.
- Further savings might accrue from reduced expenditure on emergency relief programmes as the CSG increases resilience in households with children.
- Adoption of more efficient ICT-based management information and payments systems across the full range of social protection programmes would undoubtedly increase overall cost-efficiency.
- Although the tax system is in principle the primary means whereby a universal grant is effectively concentrated on the poor, consideration might be given to concentrating it further by applying means testing and/or geographical targeting to the grant.
- Revenue to finance a CSG could be boosted through adjustments to marginal income and value added tax rates, effectively further concentrating benefits on the poorer end of the income and expenditure distribution, and possibly other sources such as adjustments to mineral royalties and tourism levies.

Taking these measures into account, a CSG in Botswana begins to look like a more affordable and efficient way of reaching the poor than it might appear at first sight. Furthermore, there would be the additional option of introducing it progressively, using a more cautious, incremental approach that might involve the following steps:

- Begin with a CSG for children in their early years (e.g. up to their 6th or 7th birthday), recognising the particular importance of support to children at the pre-school stage when they are most vulnerable to neglect and tend to be ‘invisible’ to public services.
- Set the grant at an initial level based on costs to care-givers of providing basic food and clothing for a child in this age group – P100 per month (with subsequent annual consumer price index linking) could be regarded as a minimum below which effectiveness and cost-efficiency would become significantly impaired, but a higher level might be considered.
- Consider means testing the grant, for example through specifying an appropriate index-linked upper earnings limit for the primary care-giver and spouse, and/or targeting it to poorer parts of the country, in order to concentrate benefits on the neediest. Benefits of so doing will need to be weighed against increased costs to both management and recipients, and possibly unintended targeting effects (such as disincentives to earning more than the threshold level, or migration into targeted areas).
- Link the grant to complementary services for health and nutrition care and extension, so that care-givers have the means to make it work in the best interests of the targeted age-group. At the same time, assess the extent to which the grant makes elements of existing social protection programmes redundant, and make adjustments to those programmes as appropriate – noting that a cash transfer will not be an adequate substitute for the broad range of services that these programmes provide.
- Ensure that proper provision is made for monitoring and evaluation (M&E), based on prior identification of indicators and the means to monitor them, including proper linkage to the parallel introduction of improved ICT-based identification, registration and management information systems.
- After a period of implementation, and careful review of M&E findings and available fiscal space, consider further expanding the grant through one or a combination of
 - a) increasing the level of the grant,
 - b) increasing the age limit for eligibility, and
 - c) increasing coverage within the current age range by relaxing means tests and any other restrictions (which could also simplify management and ease targeting problems).

Conclusion

Botswana’s current suite of social protection programmes contains a number of gaps. In particular, many poor and vulnerable children are not reached with either economic or social assistance. There is ample evidence that poverty is worst among children as well as the elderly, and families raising children suffer more poverty than those who are not (BIDPA, 2009). Children are especially vulnerable to hunger and malnutrition, particularly in their early years when impacts can be lifelong, and to social exclusion, child labour and child prostitution. As outlined above, a child grant that provides a regular monthly cash transfer to primary care-givers has been shown to be effective in combating multiple dimensions of child poverty in South Africa and Namibia, especially when linked to complementary child-focused social services. It also has the potential to offset the costs to parents or other carers of bringing up children and so can help reduce poverty at the household and family level and bring about positive gender impacts.

Like neighbouring South Africa, Botswana could introduce such a grant incrementally, beginning with the pre-school age group. A monthly, index-linked transfer of P100 for all 0–6 year-olds would involve an initial gross cost of roughly P0.4 billion or 0.4% of GDP, falling to 0.3% of GDP by 2020. Part of this would be recovered automatically through taxation. A further lesson offered by the South African experience is that social protection has maximum reach and impact when it is part of a ‘social contract’ between government and citizens that is based on constitutionally guaranteed and judicially enforceable rights on the one hand, upheld through vigorous civil society action on the other (Devereux, 2010). A CSG could be the first step towards such a social contract in Botswana.



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Child Data

Various child related indicators that correspond to child survival, development, protection and participation are provided in Annex A and B of this publication. The data in Annex A provides a snap shot of whether various child indicators are static, improving or getting worse. However, the data provided is not sufficiently disaggregated to facilitate a full appreciation of the well-being of all children. The need for better child data is supported by research observations in this publication.

Establishing a comprehensive child data system is instrumental in facilitating evidenced based policy and programming. In addition, improving child data collection and analysis is instrumental in helping the government and other stakeholders to achieve the goals and targets set by the MDGs and Vision 2016, as well as enable the government to demonstrate the obligations made.

As a first step towards providing disaggregated data on children that goes beyond disaggregation by sex and rural-urban location, as is the case in Annex A, a secondary analysis¹ was undertaken of the following:

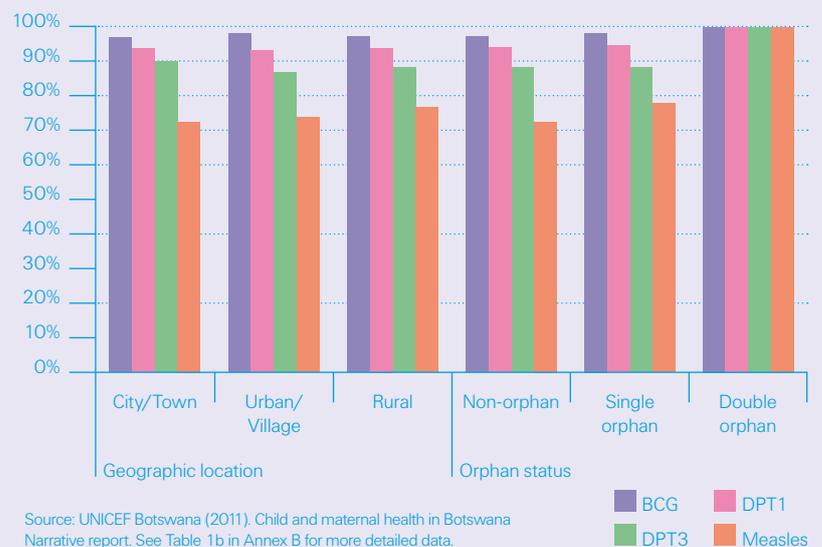
- the Botswana AIDS Impact Surveys (BAIS) I, II and III;²
- the Botswana Demographic Survey (2006) and;
- the Botswana Family Health Survey IV (2007).

Select tables emanating from the analysis are provided in Annex B. Where applicable the data in Annex B is disaggregated by age, wealth deciles,³ gender, geographical location, orphan status and education.

The main findings are as indicated below:

Child survival: Infant, under-five and maternal mortality⁴ have increased over time; with mortality rates notably higher in poorer households. This indicates that major inequalities remain in the underlying social and economic situation of the most vulnerable. The data also indicate a distinct geographic pattern, with mortality rates higher in rural areas.

Figure 1 Immunization, geographical type, and orphan status 2007



1. UNICEF Botswana (forthcoming), Child and maternal health in Botswana Narrative report. (draft report prepared by Department of Economics, Stellenbosch University).

2. Conducted in 2001, 2004 and 2008 respectively.

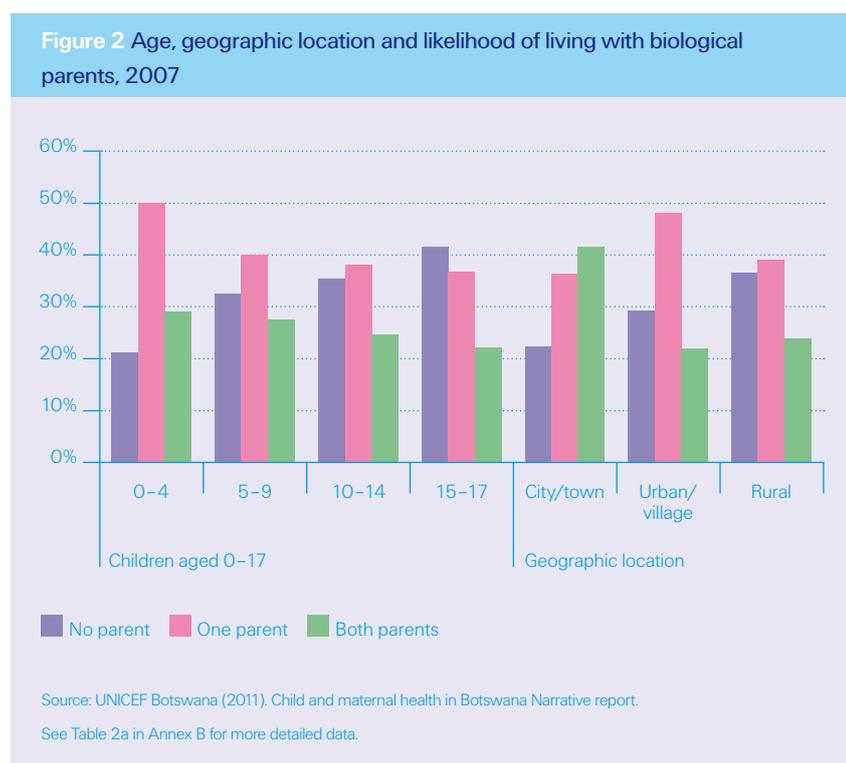
3. Wealth deciles present the ratio of the average wealth of the richest 10 percent of the population to the average wealth of the poorest 10 percent.

4. There is need for caution when inferring to trends regarding maternal mortality because it is a low incidence event and thus very sensitive to changes in sampling etc.

There is also concern about the vulnerability of teenage mothers and their lack of awareness, and the social stigma they face. As a result, there are incidences where teenage mothers do not seek antenatal care and other health services. This situation has been associated with increased maternal mortality. There are discernable patterns with other vulnerability indicators that indicate that teenage pregnancy increases with rural location, poverty and double orphan status.

Immunization rates are good, with negligible difference in the level of immunizations for different wealth deciles, orphans and between rural and urban areas (see Figure 1 above and Table 1b in Annex B). This can be interpreted as evidence that the public health service delivery of these basic functions is equitable and reasonably effective. However, some aspects of the quality of the health service still need to improve as is evidenced by the increase in maternal mortality between 2006 and 2009 from 140 deaths per 100,000 live births to 190 deaths per 100,000 live births in the respective years.⁵

Child development: As is evident from Figure 2 below, parental absenteeism is a significant issue, with the majority of children living with either no biological parent (31.7%) or one biological parent (41.7%). Rural areas have the highest share of children not living with a biological parent, with close to a third not living with their biological parents, particularly in the North-West region. See Table 2a in Annex B for more detailed data.



Child protection: Nationally, approximately 28% of children do not have birth certificates; the data indicate a distinct urban disparity with higher levels of birth registration in urban areas as compared to rural areas. See Figure 3 below and table 3a in Annex B. In addition, child protection issues such as child labour, remain poorly documented. The prevalence of child labour is estimated to be between 1% and 2% and is more likely in rural areas and amongst older boys (see Figure 4 below and Table 3b in Annex B).⁶

5. CSO (2010), Botswana – Maternal Mortality Ratio (MMR) 2005–2009.

6. It is important to note that given the nature of the subject matter, surveys are often likely to under report child labour.

Only a small fraction of all households are headed by children (between 0.7% to 1.2%). Child headed households are more common in rural areas, and among the age group 15-17 years and tend to be poor (from lower asset deciles) (see Figure 5 below and Table 3c in Annex B).

HIV and AIDS: Government policy has been highly effective in assuring equitable and almost universal access to important health services, in particular vaccinations and ARVs. The data also indicate there is knowledge of at least 3 misconceptions about HIV and AIDS. There is also general knowledge on mother to child transmission is as indicative below in Figure 6 below and Table 4a of Annex B.

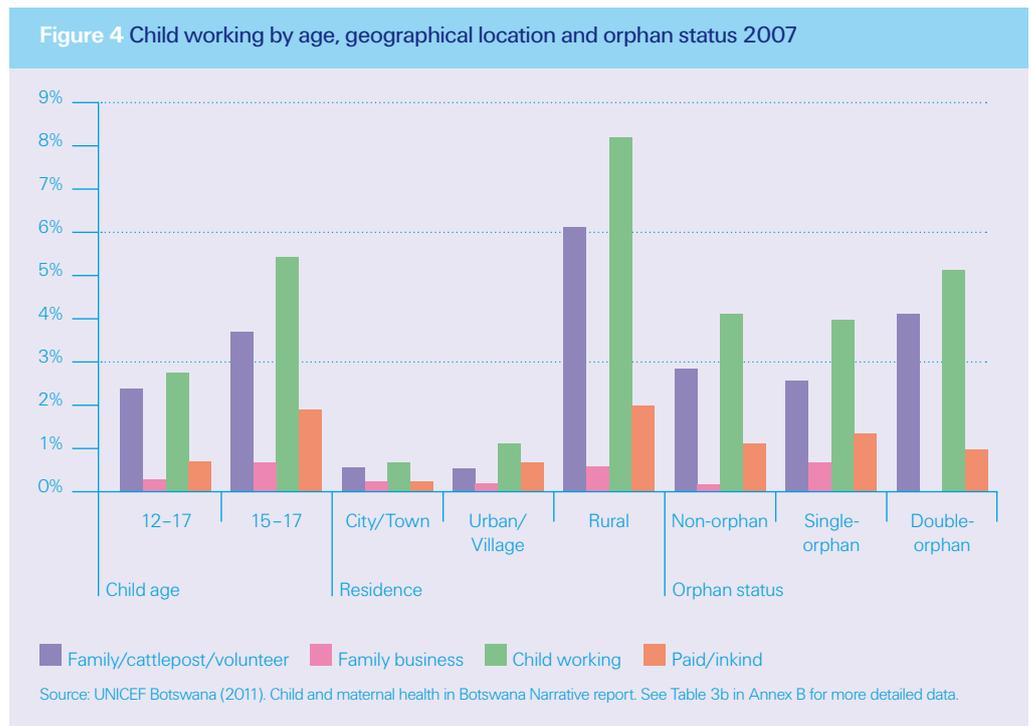
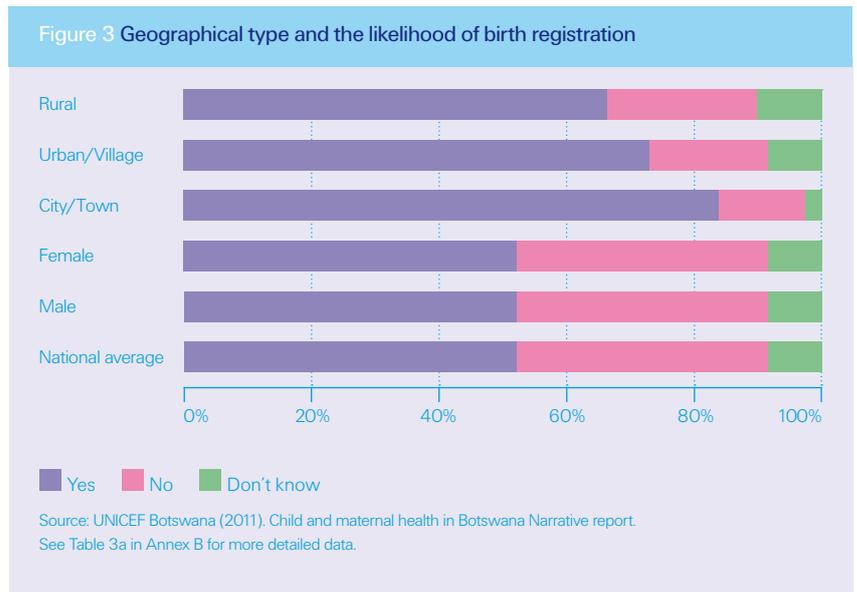
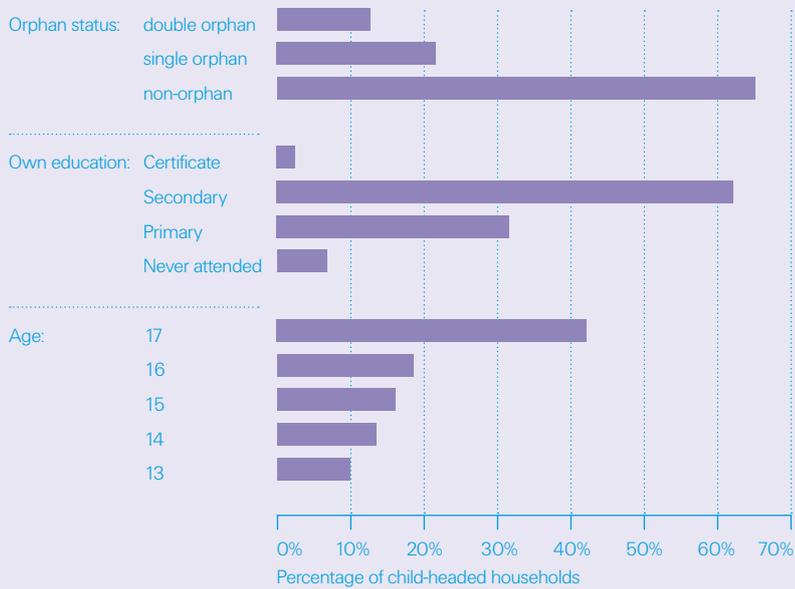
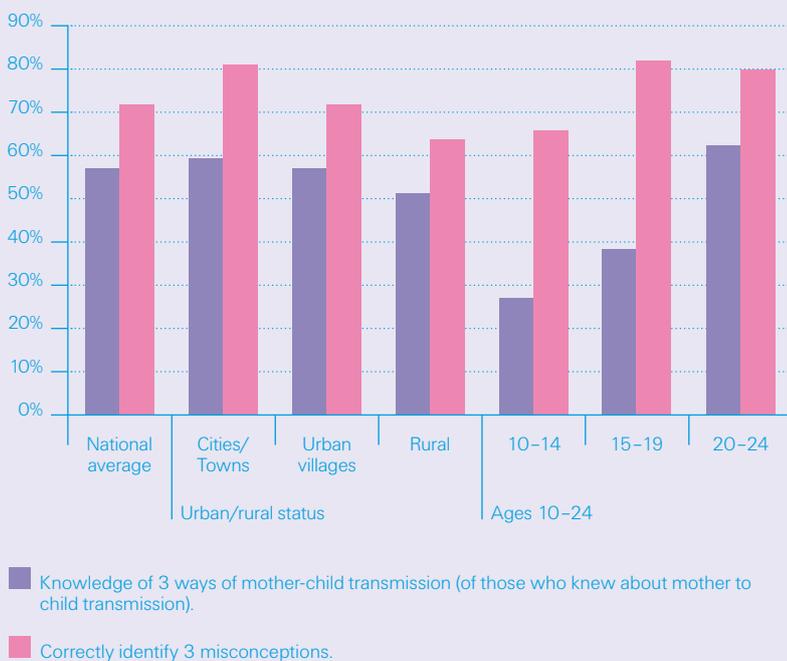


Figure 5 Characteristics of child headed households⁷



Source: UNICEF Botswana (2011). Child and maternal health in Botswana Narrative report. See Table 3c in Annex B for more detailed data.

Figure 6 Knowledge of HIV transmission by geographical type and age (10–24 year olds)



Source: UNICEF Botswana (2011). Child and maternal health in Botswana Narrative report. See Table 4a in Annex B for more detailed data.

Annex A

A summary of various child indicators

Indicator	Baseline Year	Total (Baseline year)	Latest Year	Latest National average	Male	Female	Urban	Rural	Age group	Source
Child survival										
Neonatal mortality rate – Deaths per 1000 live births			2007	34			24	42	<28 days	BFHS IV
Infant mortality rate – Deaths per 1000 live births	1996	37.0	2007	57			54	70	<1 yr	MICS 2000, BFHS IV
Under-5 mortality rate – Deaths per 1000 live births	1996	45	2007	76			72	96	<5 yr	MICS 2000, BFHS IV
Maternal mortality rate – Deaths per 100,000 live births	2005	158	2008	198						CSO Statistics Brief 2009/17_2008
Nutrition										
Underweight prevalence – moderate and severe (NCHS) %	2000	12.5	2007	13.5	13.9	13.1	9.3	16.0	<5 yr	MICS 2000, BFHS IV
Underweight prevalence – severe (NCHS) %	2000	2.4	2007	3.0	3.1	2.9	1.4	4.0		MICS 2000, BFHS IV
Stunting prevalence – moderate and severe (NCHS) %	2000	23.1	2007	25.9	28.5	23.2	19.6	29.1	<5 yr	MICS 2000, BFHS IV
Stunting prevalence – severe (NCHS) %	2000	7.9	2007	11.0	11.7	10.4	5.9	13.4		MICS 2000, BFHS IV
Wasting prevalence – moderate and severe (NCHS) %	2000	5.0	2007	7.2	7.7	6.6	5.3	8.2	<5 yr	MICS 2000, BFHS IV
Wasting prevalence – severe (NCHS) %	2000	1.1	2007	2.7	2.4	2.9	1.9	3.1		MICS 2000, BFHS IV
Low birth weight %	2000	8.0	2007	13.0			12.0	13.4		MICS 2000, BFHS IV
Iodized salt consumption %	2000	66.0	2007	65.2			75.5	55.1		MICS 2000, BFHS IV
Timely initiation of breastfeeding %			2007	40.0			41.2	37.5		BFHS IV
Exclusive breastfeeding rate %			2007	20.3	17.4	23.7	12.0	21.1	<6 months	BFHS IV
Timely complementary feeding rate %	2000	57.0	2007	45.5	48.4	42.3	42.3	47.5	6-9 months	MICS 2000, BFHS IV
Continued breastfeeding rate %	2000	53.4	2007	36.3	35.4	37.3	39.2	33.5	12-15 months	BFHS IV
Continued breastfeeding rate %	2000	10.7	2007	5.9	8.0	4.1	4.8	6.7	20-23 months	BFHS IV
Diarrhoea treatment: ORT (ORS or RHF or increased fluids) with continued feeding %	2000	95.8	2007	68.0	68.5	67.6	69.6	65.9	<5 yr	MICS 2000
Care seeking for suspected pneumonia %	2000	14.0	2007	86.2	86.2	86.1	96.6	87.1	<5 yr	MICS 2000, BFHS IV
Antibiotic treatment of suspected pneumonia %			2007	37.2	33.5	42.9	44.2	42.0	<5 yr	
Under-fives sleeping under insecticide treated net (ITN) %			2007	6.1					<5 yr	Malaria Indicator Survey
Under- fives with fever receiving any antimalarial treatment %			2007	10.1						Malaria Indicator Survey
Maternal health care										
Contraceptive prevalence %	2000	44.1	2007			52.8	58.7	48.4	15-49 yr	MICS 2000, BFHS IV
Antenatal care (at least one visit) %	2000	96.8	2007			94.1	94.8	94.1	15-49 yr	MICS 2000, BFHS IV
Antenatal care (at least 4 visits) %			2007			73.3	77.3	69.7	15-49 yr	BFHS IV
Skilled attendant at birth %	2000	98.5	2007			94.6	99.3	90.2		MICS 2000, BFHS IV
Institutional deliveries %			2007			93.8	99.1	88.2		BFHS IV

Key

BAIS	Botswana AIDS Impact Survey	MICS	Multiple Indicator Cluster Survey
BFHS	Botswana Family Health Survey	NCHS	National Centre for Health Statistics
BLFS	Botswana Labour Force Survey	UNGASS	United Nations General Assembly Special Session

Indicator trend

■	Better
■	Static
■	Worse

Indicator	Baseline Year	Total (Baseline year)	Latest Year	Latest National average	Male	Female	Urban	Rural	Age group	Source
Water and sanitation										
Use of improved drinking water sources %	2000	96.5	2007	96.1			99.8	91.3		MICS 2000, BFHS IV
Use of improved sanitation facilities %	2000	83.7	2007	79.8			99.4	58.3		BFHS IV
HIV and AIDS										
Correct knowledge and no misconceptions about HIV and AIDS (all five correct) %			2008	42.1					15-24 yr	UNGASS Progress Report 2010
Condom use at last higher-risk sex %		75.3	2008	75.3	88.4				15-24 yr	BAIS I
Condom use at last sex among those with more than one sexual partner in the past year %									15-24 yr	
Sex before age 15 %			2008	3.5	3.6	2.2			15-24 yr	BAIS III
Higher-risk sex in past year %			2008	32.8	31.4	34.2			15-24 yr	BAIS III
Sex with more than one partner in the past year %			2008	9.8	11.8	8.0			15-24 yr	BAIS III
HIV and AIDS (orphans)										
Non-orphan school attendance rate - total %			2008	89.2	88.3	90.1			10-14 yr	BAIS III
Orphan school attendance ratio - ratio			2008	85.9	84.3	87.4			10-14 yr	BAIS III
Support for orphans and vulnerable children (0-17 years) affected by AIDS - total %			2009	31.2					0-17 yr	UNGASS Progress Report 2010
Support for orphans and vulnerable children (0-4 years) affected by AIDS - total %			2008	11.4					0-4 yr	BAIS III
Support for orphans and vulnerable children (5-9 years) affected by AIDS - total %			2008	24.1					5-9 yr	BAIS III
Support for orphans and vulnerable children (10-14 years) affected by AIDS - total %			2008	29.1					10-14 yr	BAIS III
Support for orphans and vulnerable children (15-17 years) affected by AIDS - total %			2008	30.4					15-17 yr	BAIS III
Education										
Primary school net enrolment ratio %	2002	89.7	2010	89.4					6-12 yr	Education Stats 2010
Primary school net enrolment ratio %	2002	100.7	2010	90.8					7-13 yr	Education Stats 2010
Survival rate to the last grade of primary school (admin data) %	1999	81.8	2006	82.0	77.4	85.9				Education Statistics 1999 and 2006
Secondary school net enrolment ratio %			2006	62.2	56.5	67.8				Education Stats 2006
Secondary school net attendance rate %			2000	39.5	35.7	43.6				MICS 2000
Youth literacy rate %	2003	94.1	2009	95.3	93.7	97.0			15-24 yr	http://stats.uis.unesco.org/unesco/TableViewer/tableView.aspx
Child protection										
Birth registration %	2000	59.2	2007	72.2	71.8	72.7	85.2	66.9	<5 yr	BFHS IV
Child labour %			2005	9.0	10.9	7.0			5-14 yr	BLFS 2005/2006
Child disability % (at least one reported disability)			2001	1.7	2.0	3.4			5-9 yr	Census 2001. Dissemination Seminar 2003

Annex B

Various child data disaggregated by wealth decile, gender, residence, district, orphan status and education

1. Child survival indicators⁸

Table 1a Infant and under five mortality disaggregated by geographical type

Indicator	Infant mortality	U5 mortality
National Average	57	76
Residence	city/town	54
	urban village	44
	rural	70
		96

Source: Botswana Family Health survey 2007

Table 1b Immunization, assets, gender, geographical type, and orphan status 2007

		Vaccine							
		BCG		DPT1		DPT3		Measles	
		Yes	No	Yes	No	Yes	No	Yes	No
National average		98.1%	1.9%	94.9%	5.1%	88.7%	11.3%	75.7%	24.3%
Asset decile	1 (lowest)	97.7%	2.3%	96.0%	4.0%	89.2%	10.8%	75.3%	24.7%
	2	96.4%	3.6%	95.1%	4.9%	83.6%	16.4%	73.2%	26.8%
	3	98.0%	2.0%	95.5%	4.5%	89.0%	11.0%	74.7%	25.3%
	4	99.2%	0.8%	93.5%	6.5%	88.5%	11.5%	72.5%	27.5%
	5	99.8%	0.2%	94.0%	6.0%	89.7%	10.3%	75.1%	24.9%
	6	95.5%	4.5%	94.4%	5.6%	90.2%	9.8%	79.9%	20.1%
	7	98.7%	1.3%	96.4%	3.6%	91.3%	8.7%	75.4%	24.6%
	8	99.0%	1.0%	91.9%	8.1%	86.3%	13.7%	78.1%	21.9%
	9	98.8%	1.2%	94.7%	5.3%	91.1%	8.9%	83.5%	16.5%
	10 (highest)	99.4%	0.6%	96.2%	3.8%	88.8%	11.2%	69.7%*	30.3%*
Gender	Male	98.1%	1.9%	94.6%	5.4%	88.9%	11.1%	75.1%	24.9%
	Female	98.1%	1.9%	95.2%	4.8%	88.5%	11.5%	76.3%	23.7%
District	Gaborone	98.3%	1.7%	93.0%	7.0%	90.0%	10.0%	75.3%	24.7%
	Francistown	98.2%	1.8%	93.2%	6.8%	90.5%	9.5%	63.6%	36.4%
	Lobatse	100.0%	0.0%	96.5%	3.5%	90.1%*	9.9%	81.0%*	19.0%*
	Selebi-Phikwe	94.5%	5.5%	95.7%	4.3%	88.7%	11.3%	81.7%	18.3%
	Orapa	100.0%	0.0%	100.0%	0.0%	92.9%*	7.1%	75.4%*	24.6%*
	Jwaneng	100.0%	0.0%	100.0%	0.0%	100.0%	0.0%	83.0%*	17.0%*
	Sowa	100.0%	0.0%	95.9%	4.1%	89.9%*	10.1%	85.7%	14.3%
	Southern	98.9%	1.1%	96.7%	3.3%	91.0%	9.0%	76.0%	24.0%
	Barolong	98.2%	1.8%	95.9%	4.1%	90.8%	9.2%	78.8%	21.2%
	Ngwaketse West	95.8%	4.2%	95.8%	4.2%	92.2%	7.8%	75.5%	24.5%
	Southeast	98.4%	1.6%	88.0%*	12.0%*	76.8%*	23.2%	85.7%	14.3%
	Kweneng East	98.9%	1.1%	94.6%	5.4%	87.9%	12.1%	76.7%	23.3%
	Kweneng West	98.6%	1.4%	95.5%	4.5%	81.9%*	18.1%	77.9%*	22.1%*
	Kgatleng	100.0%	0.0%	96.9%	3.1%	87.1%	12.9%	79.1%*	20.9%*

8. Estimates marked with (*) are not representative due to small sample size and should be used with caution.

(table 1b)

	Vaccine							
	BCG		DPT1		DPT3		Measles	
	Yes	No	Yes	No	Yes	No	Yes	No
Central-Serowe	98.9%	1.1%	93.2%	6.8%	88.2%	11.8%	71.8%	28.2%
Central-Mahalapye	98.6%	1.4%	91.3%	8.7%	85.5%	14.5%	78.5%	21.5%
Central-Bobonong	97.7%	2.3%	98.9%	1.1%	87.7%	12.3%	74.9%	25.1%
Central-Boteti	98.2%	1.8%	93.6%	6.4%	93.6%	6.4%	84.8%	15.2%
Central-Tutume	96.4%	3.6%	97.0%	3.0%	91.1%	8.9%	72.5%	27.5%
North East	98.1%	1.9%	94.0%	6.0%	87.0%	13.0%	77.8%	22.2%
Ngamiland South	95.4%	4.6%	96.1%	3.9%	91.4%	8.6%	67.5%	32.5%
Ngamiland North	96.6%	3.4%	93.1%	6.9%	87.4%	12.6%	68.7%*	31.3%*
Chobe	96.7%	3.3%	96.7%	3.3%	94.7%	5.3%	80.8%	19.2%
Ghanzi	96.2%	3.8%	92.7%	7.3%	81.0%*	19.0%	69.7%*	30.3%*
Kgalagadi South	100.0%	0.0%	98.5%	1.5%	96.5%	3.5%	87.2%	12.8%
Kgalagadi North	100.0%	0.0%	100.0%	0.0%	88.8%*	11.2%	86.6%	13.4%
Residence								
City/Town	97.9%	2.1%	94.4%	5.6%	90.5%	9.5%	73.9%	26.1%
Urban Village	98.8%	1.2%	94.0%	6.0%	87.2%	12.8%	74.7%	25.3%
Rural	97.7%	2.3%	95.7%	4.3%	89.1%	10.9%	77.0%	23.0%
Parental head								
Missing	100.0%	0.0%	100.0%	0.0%	100.0%	0.0%	100.0%	0.0%
Never attended	98.3%	1.7%	94.7%	5.3%	87.7%	12.3%	73.3%	26.7%
Preschool	100.0%	0.0%	100.0%	0.0%	100.0%	0.0%	100.0%	0.0%
Non formal	98.7%	1.3%	98.7%	1.3%	95.2%	4.8%	82.1%	17.9%
Primary	97.3%	2.7%	95.5%	4.5%	88.5%	11.5%	76.6%	23.4%
Secondary	99.4%	0.6%	93.2%	6.8%	89.0%	11.0%	76.7%	23.3%
Certificate	97.4%	2.6%	93.5%	6.5%	87.0%	13.0%	76.6%	23.4%
Diploma	100.0%	0.0%	96.6%	3.4%	94.8%	5.2%	80.7%	19.3%
Degree	98.4%	1.6%	97.4%	2.6%	86.0%*	14.0%	62.6%*	37.4%*
Orphan status								
Non-orphan	98.2%	1.8%	95.0%	5.0%	88.6%	11.4%	75.1%	24.9%
Single orphan	98.5%	1.5%	94.8%	5.2%	88.4%	11.6%	77.4%	22.6%
Double orphan	100.0%	0.0%	100.0%	0.0%	100.0%	0.0%	100.0%	0.0%
Yes and unsure	97.5%	2.5%	93.9%	6.1%	90.3%	9.7%	82.7%	17.3%
No and unsure	72.9%*	27.1%*	72.9%*	27.1%*	72.9%*	27.1%*	72.9%*	27.1%*

Source: Botswana Family Health survey 2007



2. Child development indicators: disaggregated by wealth decile, gender, age, district, residence and education.⁹

Table 2a Assets, gender, age, district and education, and likelihood of living with biological parents, 2007

		Presence of parents		
		no parent	one parent	both parents
National average		31.7%	41.7%	26.6%
Asset decile	1 (lowest)	36.1%	38.7%	25.2%
	2	37.8%	40.1%	22.1%
	3	38.0%	40.6%	21.4%
	4	31.6%	47.4%	21.0%
	5	30.0%	48.4%	21.5%
	6	30.8%	48.8%	20.4%
	7	29.6%	41.2%	29.2%
	8	29.6%	40.3%	30.1%
	9	27.5%	39.9%	32.6%
	10 (highest)	17.6%	34.5%	47.9%
Gender	Male	31.6%	40.7%	27.6%
	Female	31.7%	42.8%	25.5%
Child age 0–17	0–4	21.4%	49.9%	28.7%
	5–9	32.3%	39.9%	27.7%
	10–14	36.2%	38.3%	25.4%
	15–17	40.9%	36.4%	22.7%
District	Gaborone	16.0%	33.5%	50.5%
	Francistown	21.7%	45.6%	32.7%
	Lobatse	26.9%*	38.5%*	34.6%*
	Selebi-phikwe	31.8%	32.5%	35.7%
	Orapa	18.9%	22.6%	58.5%
	Jwaneng	33.3%*	38.1%*	28.6%*
	Sowa	31.1%*	25.5%*	43.4%*
	Southern	37.1%	39.9%	23.0%
	Barolong	41.8%	39.3%	18.9%
	Ngwaketse West	43.1%*	46.0%*	10.9%
	Southeast	27.9%	47.6%	24.5%*
	Kweneng East	28.3%	45.6%	26.2%
	Kweneng West	35.9%*	32.7%	31.3%
	Kgatleng	27.5%	44.7%	27.8%*
	Central-Serowe	32.0%	44.8%	23.2%
	Central-Mahalapye	33.1%	45.0%	21.9%
	Central-Bobonong	41.4%*	40.3%*	18.3%
	Central-Boteti	43.9%	40.7%*	15.4%
	Central-Tutume	33.9%	42.6%	23.5%

(table 2a)

		Presence of parents		
		no parent	one parent	both parents
North east		43.9%*	45.3%*	10.8%
Ngamiland South		32.9%*	44.0%	23.2%
Ngamiland North		23.6%	52.1%*	24.3%*
Chobe		38.7%	39.4%	21.9%
Ghanzi		32.8%	37.4%	29.8%
Kgalagadi South		28.6%	40.5%	31.0%
Kgalagadi North		28.9%*	35.5%	35.5%*
Residence	city/town	22.5%	36.3%	41.1%
	urban village	29.3%	48.1%	22.6%
	rural	36.9%	39.5%	23.6%
Parental education	Missing	33.3%*	61.1%*	5.6%
	Never attended	37.4%	39.6%	23.0%
	Preschool	29.4%*	52.9%*	17.6%*
	Non formal	34.5%	42.3%	23.2%
	Primary	31.8%	46.5%	21.7%
	Secondary	30.0%	43.2%	26.9%
	Certificate	26.9%	39.2%	33.9%
	Diploma	21.0%	41.1%	37.9%
	Degree	18.7%	24.2%	57.1%
	Don't know	42.9%*	14.3%*	42.9%*

Source: Botswana Family Health survey 2007

9. Estimates marked with (*) are not representative due to small sample size and should be used with caution.

3. Child protection: disaggregated by wealth decile, gender, district, residence, education and orphan status.¹⁰

Table 3a Assets, gender, geographical type, education and orphan status and the likelihood of birth registration

		Status of registration		
		Yes	No	Don't know
National average		72.2%	21.3%	6.5%
Asset decile	1 (lowest)	55.2%	33.5%	11.2%
	2	59.3%	32.7%	8.1%
	3	70.0%	21.1%	8.9%
	4	70.4%	25.0%	4.6%
	5	72.7%	21.0%	6.3%
	6	76.9%	17.6%	5.5%
	7	80.5%	13.3%	6.2%
	8	78.5%	16.8%	4.7%
	9	88.5%	8.7%	2.8%
	10 (highest)	91.6%	6.0%	2.4%
Gender	Male	72.0%	21.3%	6.8%
	Female	72.4%	21.3%	6.3%
District	Gaborone	88.8%	9.7%	1.5%
	Francistown	86.4%	10.6%	3.0%
	Lobatse	72.0%*	28.0%*	0.0%
	Selebi-Phikwe	76.3%*	23.7%*	0.0%
	Orapa	93.7%*	0.0%	6.3%
	Jwaneng	95.6%	4.4%	0.0%
	Sowa	91.1%*	8.9%*	0.0%
	Southern	74.5%	20.2%	5.2%
	Barolong	79.8%	15.4%*	4.8%
	Ngwaketse West	71.3%	19.5%*	9.2%*
	Southeast	85.0%	9.3%	5.8%
	Kweneng East	65.8%	28.7%	5.4%
	Kweneng West	60.8%*	28.5%*	10.7%
	Kgatleng	82.4%	12.2%	5.4%
	Central-Serowe	69.1%	19.4%	11.5%
	Central-Mahalapye	71.0%	21.8%	7.2%
	Central-Bobonong	63.5%*	24.7%*	11.8%
	Central-Boteti	88.0%	7.2%	4.9%
	Central-Tutume	63.5%*	27.3%*	9.2%
	North East	77.5%*	16.5%*	6.0%
	Ngamiland South	62.0%*	30.8%*	7.2%
	Ngamiland North	42.8%*	47.6%*	9.7%
	Chobe	80.1%*	6.5%*	13.5%*
	Ghanzi	74.7%*	25.3%*	0.0%

(table 3a)

		Status of registration		
		Yes	No	Don't know
Kgalagadi South		74.0%*	14.8%*	11.2%*
Kgalagadi North		69.5%*	20.1%*	10.3%
Residence	City/Town	85.2%	13.2%	1.5%
	Urban Village	73.8%	19.9%	6.3%
	Rural	66.8%	24.9%	8.4%
Parental head	Missing	59.3%*	0.0%	40.7%
	Never Attended	63.8%	26.8%	9.4%
Orphan status	Non-orphan	73.7%	20.4%	5.9%
	Single orphan	65.8%	25.3%	8.9%
	Double orphan	45.9%*	54.1%*	0.0%
	Yes and unsure	57.8%*	24.3%*	17.9%
	No and unsure	34.6%*	65.4%*	0.0%

Source: Botswana Family Health survey 2007

10. Estimates marked with (*) are not representative due to small sample size and should be used with caution.

Table 3b Child working by wealth decile, gender, age and orphan status 2007

		Level of work			
		Family/cattle post /volunteer	Family business	Child working	Paid/in-kind
	National average	3.0%	0.3%	4.2%	1.2%
Asset decile	1 (lowest)	6.3%	0.0%	8.2%	1.9%
	2	10.8%	0.7%	13.2%	2.7%
	3	4.1%	0.3%	6.5%	2.5%
	4	4.1%	0.6%	5.6%	1.5%
	5	1.8%	0.0%	2.7%	0.9%
	6	0.3%	0.3%	1.4%	0.7%
	7	0.3%	0.3%	1.2%	0.3%
	8	0.4%	0.4%	1.1%	0.4%
	9	0.7%	0.7%	1.1%	0.4%
	10 (highest)	0.0%	0.0%	0.0%	0.0%
Gender	male	4.3%	0.2%	6.3%	1.9%
	female	1.6%	0.4%	2.1%	0.4%
Child age 12-17	12-17	2.3%	0.2%	2.8%	0.4%
	15+	3.6%	0.4%	5.5%	1.9%
Orphan status	non-orphan	2.9%	0.2%	4.1%	1.1%
	single orphan	2.7%	0.4%	4.0%	1.4%
	double orphan	4.1%	0.0%	5.1%	1.0%
	yes and unsure	4.2%	0.7%	5.6%	0.7%
	no and unsure	0.0%	0.0%	0.0%	0.0%

Source: Botswana Family Health survey 2007

(table 3c)

Indicator		Child-headed household
Gender	Male	59.4%*
	Female	40.6%*
Age	13	10.1%
	14	13.0%
	15	17.4%
	16	18.8%
	17	40.6%*
District	Gaborone	4.3%
	Francistown	1.4%
	Lobatse	1.4%
	Selebi-phikwe	2.9%
	Southern	14.5%
	Barolong	4.3%
	Ngwaketse West	1.4%
	Southeast	1.4%
	Kweneng East	4.3%
	Kweneng West	2.9%
	Kgatlang	1.4%
	Central-Serowe	11.6%
	Central-Mahalapye	4.3%
	Central-Bobonong	10.1%
	Central-Boteti	2.9%
	Central-Tutume	7.2%
	North east	4.3%
	Ngamiland South	10.1%
	Ngamiland North	4.3%
Chobe	1.4%	
Ghanzi	1.4%	
Kgalagadi South	1.4%	
Own Education	Never Attended	7.2%
	Primary	30.4%
	Secondary	60.9%
	Certificate	1.4%
Orphan status	non-orphan	64.7%
	single orphan	20.6%
	double orphan	11.8%
	yes and unsure	1.5%
	no and unsure	1.5%

Source: Botswana Family Health survey 2007

Table 3c Child headed households by wealth decile, gender, geographical type, education and orphan status¹¹

Indicator		Child-headed household
	National average	1.0%
Asset decile	1 (lowest)	10.9%
	2	12.5%
	3	18.8%
	4	18.8%
	5	14.1%
	6	7.8%
	7	1.6%
	8	9.4%
	9	1.6%
	10 (highest)	4.7%

11. It is important to note that the national average is the prevalence rate while the disaggregation represents the share of child headed households in each category, i.e. 59.4% of those in child headed households are male as opposed to the case of 59.4% of males are in child headed households.

4. HIV and AIDS: Disaggregated by wealth decile, gender, district, residence, education and orphan status.¹²

Table 4a Knowledge of HIV transmission, assets, gender, geographical type, education and orphan status and the likelihood of birth registration

		Knowledge of 3 ways of mother-child transmission (of those who knew about mother to child transmission)		Correctly identify 3 misconceptions and more
		Yes	No	3 or more
National average		56.3%	43.7%	72.0%
Urban/rural status	cities/towns	59.5%	40.5%	81.2%
	urban villages	57.1%	42.9%	73.1%
	rural	53.7%	46.3%	65.2%
Asset decile	1 (lowest)	44.8%	55.2%	54.2%
	2	49.5%	50.5%	52.6%
	3	54.6%	45.4%	64.0%
	4	55.5%	44.5%	65.6%
	5	57.3%	42.7%	69.5%
	6	59.4%	40.6%	73.7%
	7	58.7%	41.3%	74.2%
	8	57.8%	42.2%	79.5%
	9	61.4%	38.6%	84.9%
	10 (highest)	59.2%	40.8%	87.5%
Gender	Female	61.3%	38.7%	75.2%
	Male	50.4%	49.6%	68.2%
Ages 10-24	10-14	27.0%	73.0%	66.7%
	15-19	48.1%	51.9%	82.1%
	20-24	62.3%	37.7%	80.5%
Ages 15-24	15-24	55.2%	44.8%	81.3%
Districts	Gaborone	58.2%	41.8%	82.1%
	Francistown	60.3%	39.7%	80.8%
	Lobatse	60.9%	39.1%	78.5%
	Selebi-Phikwe	59.4%	40.6%	78.7%*
	Orapa	59.4%	40.6%	85.7%
	Jwaneng	68.0%	32.0%	82.0%*
	Sowa	60.4%	39.6%	84.5%
	Southern	53.6%	46.4%	66.3%
	Barolong	50.8%	49.2%	59.5%
	Ngwaketse West	66.5%*	33.5%*	63.3%

(table 4a)

		Knowledge of 3 ways of mother-child transmission (of those who knew about mother to child transmission)		Correctly identify 3 misconceptions and more
		Yes	No	3 or more
	Southeast	59.3%	40.7%	79.4%
	Kweneng East	57.7%	42.3%	72.9%
	Kweneng West	48.8%	51.2%	54.6%
	Kgatleng	54.5%	45.5%	70.9%
	Central-Serowe	55.8%	44.2%	66.8%
	Central-Mahalapye	51.1%	48.9%	67.1%
	Central-Bobonong	54.8%	45.2%	62.8%
	Central-Boteti	62.5%*	37.5%*	70.6%
	Central-Tutume	52.3%	47.7%	67.6%
	Northeast	56.3%	43.7%	78.5%
	Ngamiland South	61.2%	38.8%	71.7%
	Ngamiland North	56.6%	43.4%	62.7%
	Chobe	63.0%	37.0%	86.8%
	Ghanzi	46.4%	53.6%	63.3%
	Kgalagadi South	53.0%*	47.0%*	67.9%
	Kgalagadi North	50.7%*	49.3%*	54.8%*
Head's education	No response/dont know	52.3%	47.7%	71.5%
	Never attended	47.4%	52.6%	52.1%
	Non formal	59.3%	40.7%	61.5%
	Primary	55.5%	44.5%	65.4%
	Secondary	60.8%	39.2%	80.1%
	Higher	63.1%	36.9%	88.8%
Own education	No response/dont know	33.0%*	67.0%*	80.0%*
	Never attended	47.8%	52.2%	34.1%
	Non formal	58.8%	41.2%	52.4%
	Primary	46.2%	53.8%	58.6%
	Secondary	61.8%	38.2%	82.6%
	Higher	67.4%	32.6%	90.9%
Orphan Status	Non-orphan	34.3%	65.7%	72.7%
	Single orphan	31.9%	68.1%	72.9%
	Double orphan	39.0%	61.0%	73.2%
	Unsure for either	28.1%*	71.9%*	75.9%*
	Yes and unsure	34.6%	65.4%	68.3%
	No and unsure	31.4%*	68.6%*	64.0%*

Source: Botswana AIDS Impact Survey 2008

12. Estimates marked with (*) are not representative due to small sample size and should be used with caution

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