

This chapter outlines the recent levels of change in the core indicators of living conditions with emphasis on the poor.<sup>1</sup> These indicators include the proportion of population below the poverty datum line for income (consumption) poverty, the prevalence of underweight children under-five years of age for child malnutrition, the primary completion rate for universal primary education, the ratio of girls to boys in primary and secondary education for gender equality, and the HIV prevalence and under-five mortality rate per 1000 live births for health outcomes.

The outcome indicators are similar to the indicators of the core Millennium Development Goals (MDG), but disaggregated when such information exists to specifically capture the well being of the poor. The key guiding question is how has the income (consumption) poor fared in the midst of rapid economic growth, a marked improvement in the provision of social services (i.e. nutrition and health, and education), and extensive publicly provided social safety nets?

### 2.1 POPULATION GROWTH AND DISTRIBUTION

Botswana's projected population for the year 2006 was 1.7 million people (CSO, 2005). The majority are youth below the age of 30 (65%), while those below 15 years of age who are yet to enter child-bearing age account for 36% of the population. Whilst thus the potential exists for strong population momentum, its likely impact on future population size is diminishing, as the country is experiencing a declining trend in annual population growth: 4.7% between 1971 and 1981, 3.5% between 1981 and 1991, and 2.4% between 1991 and 2001.

Atypical of the stylised characteristics of demographic transition (i.e. a decline in fertility rate typically follows an early decline in mortality rate), the decline in population growth is due to a combination of declining fertility and rising mortality rates associated with a high HIV/AIDS prevalence.

The population that is historically concentrated in the eastern part of the country is becoming increasingly urbanised:<sup>2</sup> 9.6% in 1971, 18.3% in 1981, 45.7% in 1991 (partly due to the creation of new urban areas) and 54.1% in 2001.

With an increasing migration of the rural population, especially the job-seeking youths, to urban areas, reducing poverty poses formidable challenges, with a potential shift in the geographical locus of poverty to urban areas.

### 2.2 INCOME POVERTY AND CHANGE

**Recent poverty rates:** Recent poverty estimates indicate a national level prevalence rate of 30.1%. That is, nearly one-third of the population lives below the poverty datum lines. Not only is the incidence of poverty high, it is also deep, as measured by the poverty gap, which is the average distance below the poverty line in a population, expressed as a percentage of the poverty line. And the depth is considerably unequal amongst the poor, as evident in the severity index of poverty (preliminary findings in IPC and BIDPA, 2005).

<sup>1</sup> Following the definition adopted in the CSO HIES report, the poor here refer to the income poor (or those people whose income or consumption expenditures are below the minimum costs of attaining basic needs).

<sup>2</sup> Urban settlement is defined as constituting a minimum threshold population of 5000 residents with at least 75% of its economically active population engaged in non-agricultural activities.

Poverty in Botswana is widely spread across space. All the poverty measures (head-count and high-order poverty measures) indicate that poverty is markedly higher in rural areas, followed by urban villages and towns. Since a large segment of the population is still living in rural areas, the high head count poverty prevalence means that a large percentage of the poor are rural (about 65% in 2002/03).

In the rural areas, there is considerable spatial variation in income/consumption poverty (Table 2.1). Prevalence is high in the rural northwest (49.7%) and the rural southwest (41.5%), followed by the rural northeast (37.8%) and rural southeast (28.9%). The people living in these regions face a higher likelihood of income/consumption poverty.

The northwest and southwest regions, however, comprise a small share of the country's population. Hence, despite high prevalence rates there, the poor are most numerous in regions with a high population concentration, particularly in the northeast, which accounts for 40% of the total poor in the country, followed by the southeast (28.2%).

**Poverty change over time:** In Botswana, there are few data points to track changes in poverty over time. Consistent with the expected inverse poverty and income growth relationship, a period of sustained economic growth is accompanied by a decline in poverty. But, the evidence indicating the extent to which economic growth contributes to poverty reduction has not yet been established.

Critical to monitoring the degree of poverty reduction is assessing the income growth of the poor segment of the population. But such information on the distributional impact of economic growth is also not available. However, there are two important pointers. Firstly, the decline in poverty rates between 1993-94 and 2002-03 indicates that the income of the poor has increased (This does not mean the income of all the poor has increased). Secondly, there is no notable progress in improving income distribution. The Gini index, based on disposable income, increased from 53.7 in 1993/94 to 57.3 in 2002/03 (CSO, 2004).

**Table 2.1:**  
Poverty  
Estimates by  
Category Based  
on Per Capita  
Consumption,  
2002/03

Category	Head-count Ratio	Poverty Gap Ratio	Severity of Poverty	Population Share	Contribution to Total Poverty (% points)	Share of Poor (%)
Urban	10.8	3.3	1.6	22.6	2.4	8.1
Urban Village	24.9	8.5	4.0	33.4	8.3	27.6
Rural	44.2	18.2	9.7	44.0	19.4	64.4
REGION						
Gaborone	6.1	1.9	1.0	10.8	0.7	2.2
Francistown	15.2	4.5	2.0	5.0	0.8	2.5
Other Town	14.8	4.6	2.1	6.9	1.0	3.4
Rural Southeast	28.9	10.8	5.4	29.5	8.5	28.2
Rural Northeast	37.8	14.0	7.0	32.5	12.3	40.8
Rural Northwest	41.5	18.0	10.3	8.4	3.5	11.5
Rural Southwest	49.7	22.8	12.5	7.0	3.5	11.5

Source: IPC/BIDPA, 2005.

## Close to one-fifth of the population actively seeking jobs was unemployed in 2005/06.

The persistence of income inequality (i.e. the non-declining trend) means that the effect of economic growth on poverty has been partially neutralised. Or, the growth rate of the income of the poor has been positive, but slower than the growth rate of the income of the non-poor.

### 2.3 LABOUR MARKET OUTCOMES: UNEMPLOYMENT AND WAGES

Of the total population of Botswana, 71% are in the working age category (12 years and over). Of the working age population in 2005/06, a total of 663,000 people were actively seeking employment (CSO, 2006 – STATS Brief).

Using the projected population of those 12 years and over for 2006, this is equivalent to a labour force participation rate of 54%. Of these active job seekers, 82.7% found employment, including self-employment for family gain and 17.35% remained unemployed. (CSO, 2006 – STATS Brief).

Among the employed, the majority were wage earners (59.1%). Of the balance, 61% were self-employed, working on their own lands and cattleposts. Agriculture was the leading employer; this sector included skilled market oriented producers, subsistence farmers and paid agricultural workers (30.9%), followed by retail trade (14.5%) and public administration (10.9%). The contribution of the mining and manufacturing sectors was 2.6% and 6.6%, respectively.

Close to one-fifth of the population actively seeking jobs was unemployed in 2005/06. This is indicative of a significant aggregate demand shortfall in the labour market; employment growth is slower than growth in real GDP. Unemployment is highest amongst the 20-24 and 25-29 age groups, especially amongst the female population.

These groups (the youth, particularly women) exhibit notable labour market characteristics:

- They are highly active in the labour market.
- They are most likely to migrate from their places of birth to urban villages and towns (Gwebu, 2003).
- They enter the labour market mostly with primary and secondary education, but often lack desirable skills and experience (Siphambe, 2003 and 2000).
- They experience the highest rates of unemployment (e.g. 35% in the 20-24 age bracket and 23.1% in the 25-29 age bracket, based on preliminary estimates of the 2005/06 Botswana Labour Force survey).
- When employed, most are likely to be engaged in trading, clerical services and craft making.

A closer examination of the spatial pattern of unemployment shows significant variation across districts, ranging between 7.2% and 41% in 2003 (Table 2.2).

- Unemployment is markedly high in the Southern, Kweneng East, Kgalagadi and some of the Central Sub-districts (Serowe/Palapye and Mahalapye).
- In these high unemployment areas, the Central, Southern and Kweneng districts contribute the most to the total unemployment of the country, due to the large



**Table 2.2:** Unemployment Rate and Share of Total Unemployment by District, 2003

District	Working Age Population Share (%)	Unemployment Rate	Contribution to Total Unemployment (%)
Francistown	5.3	16.8	4.8
Gaborone	11.6	15.4	10.5
Lobatse	1.8	29.7	2.6
Selebi-Phikwe	2.6	15.8	2.3
Jwaneng	1.0	19.9	1.0
Orapa	0.4	12.5	0.4
Sowa Town	0.2	18.5	0.2
Serowe / Palapye	9.8	26.9	10.1
Central Mahalapye	6.3	20.3	5.2
Central Bobonong	4.3	19.1	3.3
Central Boteti	2.9	13.1	1.8
Central Tutume	8.5	12.4	3.9
Kweneng East	10.4	31	14.2
Kweneng West	1.8	39	2.6
Kgatleng	4.3	18.5	3.1
Southern	8.0	32.1	10.1
Ngwaketse West	0.7	40.6	0.9
Barolong	2.6	47.8	5.6
North East	2.4	14.8	2.0
Kgalagadi North	0.7	34.0	1.9
Kgalagadi South	1.7	31.4	2.2
South East	3.5	13.8	2.5
Ngamiland East	4.2	30.2	5.7
Ngamiland West	2.6	7.2	0.9
Chobe	1.0	18.8	0.8
Ghanzi	1.5	17.6	1.5

Sources: Central Statistics Office (CSO) and Department of Non Formal Education (2005), Report of the Second National Survey on Literacy in Botswana, Government Printer, Gaborone (Table 7a for population aged 10 to 70 years and Table 73 for unemployment rates and computing contribution to unemployment).

working age population and a high unemployment rate. On the other hand, the Kgalagadi district, despite high unemployment rates, accounts for a small percentage of the total unemployment because of its small share of the total working population.

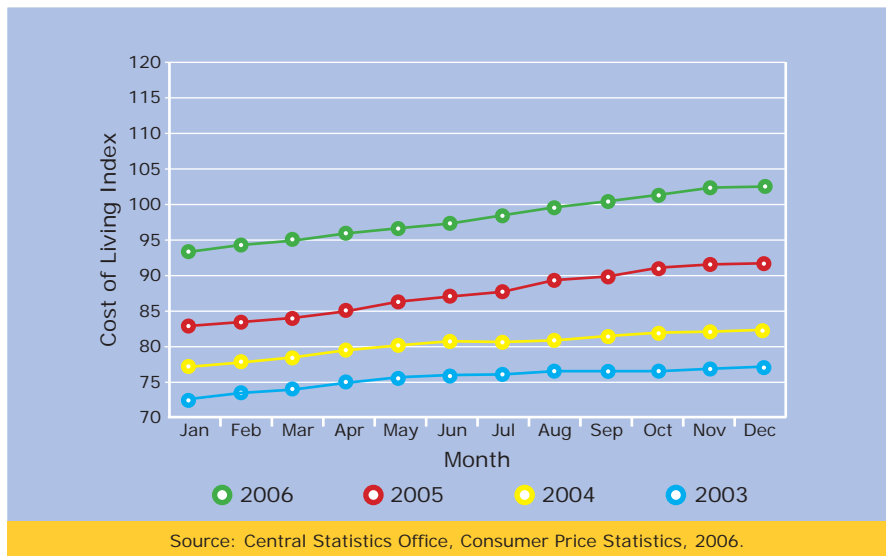
- Although lifetime out-migration from the Central Sub-districts (Serowe/Palapye) is high, these districts substantially contribute to the pool of the country's unemployed.

How are the poor faring in labour markets, for example, in terms of unemployment, sector/occupation concentration and wage earnings? Such information hardly exists. However, poverty in Botswana is closely correlated with the following labour market characteristics:

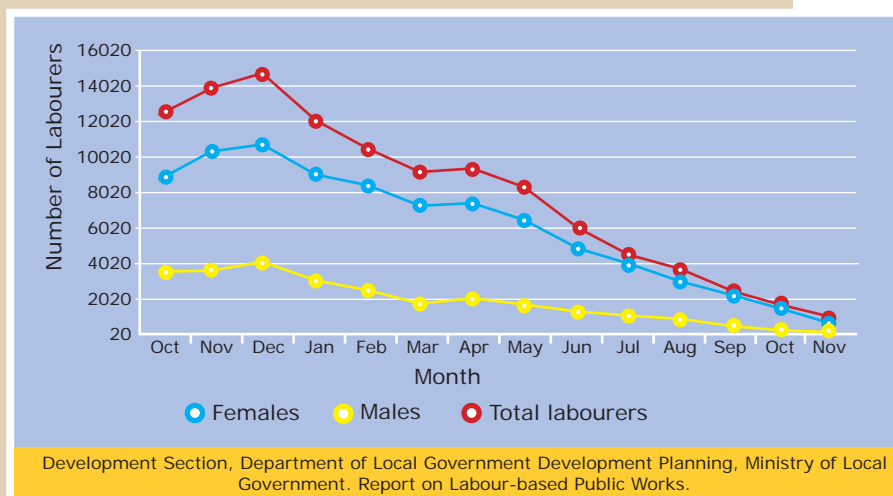
- There are few working adults amongst the poor.
- Often, they lack adequate educational attainment or marketable skills. Because the labour market is escalating (Siphambe, 2000), the chance of finding better paying jobs is likely to diminish for the poor.
- When employed, the working poor occupy mainly low-paying occupations, because of inadequate skills or educational attainment.
- Real wages in these low-paying occupations are likely to be low, because of low labour productivity.

Where nominal wages are not responsive to changes in the cost of living, real wages become depressed. For example, the monthly cost of living indices have increased for three consecutive years (Figure 2.1), regardless of the seasonality effect. It is plausible that the rural real wages have declined, and consequently the living conditions of the wage dependent poor have deteriorated. But there is little evidence to substantiate this claim.

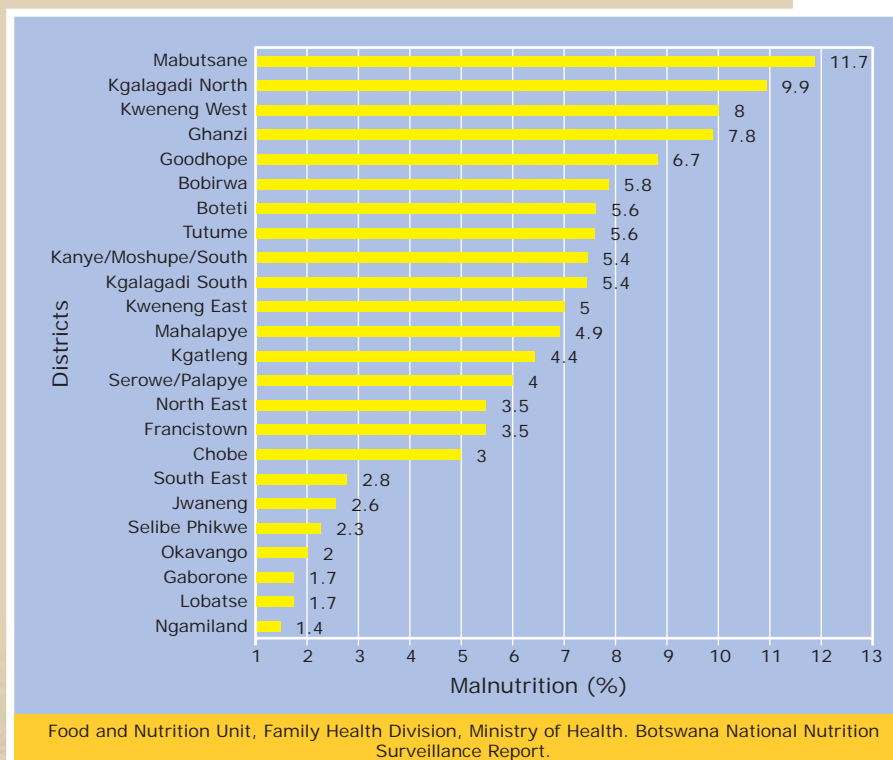
Often, the poor are vulnerable to changes in labour market conditions, as in years of drought when there is a significant reduction in the demand for labour. There will be more people seeking jobs, even at below market wages, as evident, for example, in the participation of unskilled labour in relief-based public works (Figure 2.2).



**Figure 2.1:**  
Cost of Living  
Index for  
Rural Areas  
by Year

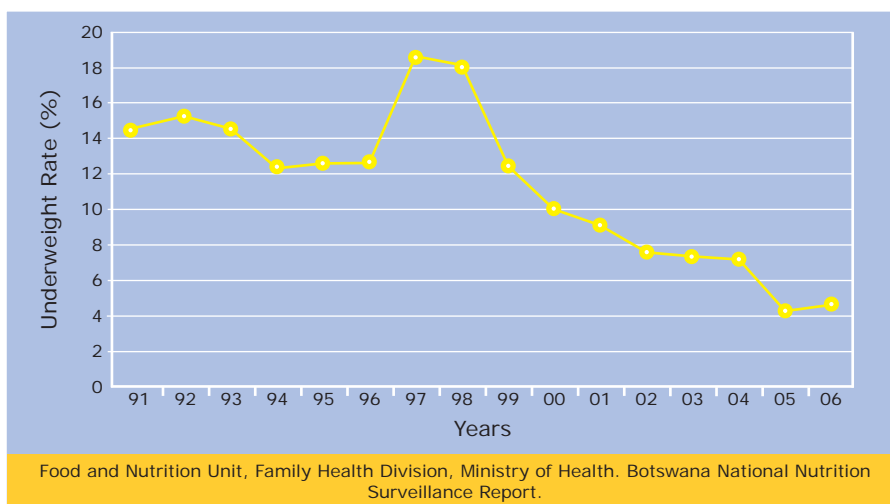


**Figure 2.2:**  
Monthly  
Employment  
Figures by  
Gender  
(Oct 2005 -  
Nov 2006)

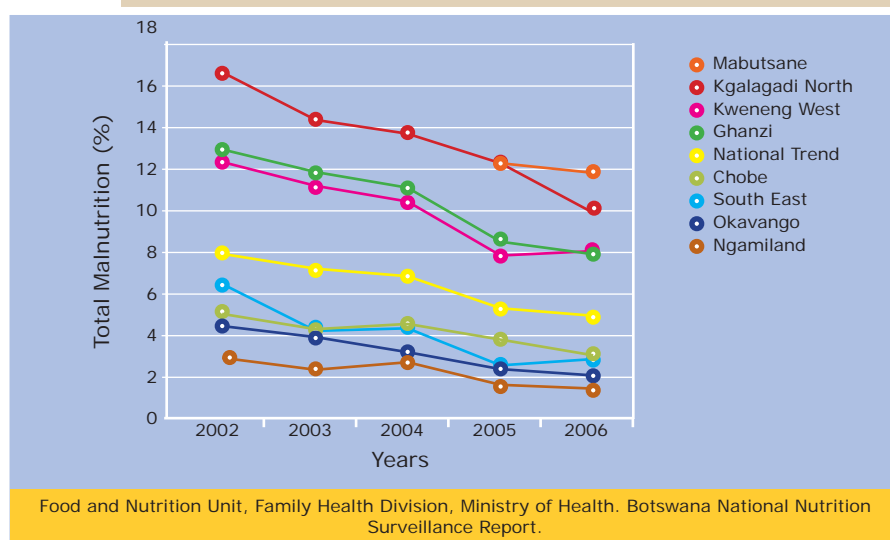


**Figure 2.3:**  
2006 Total  
Malnutrition  
(%) by  
District

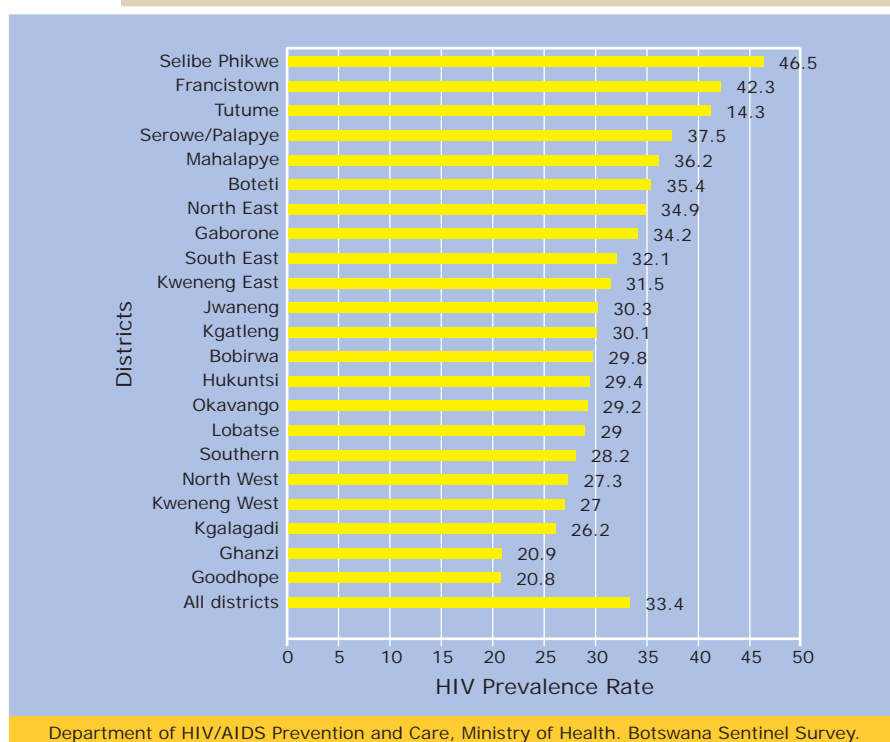
**Figure 2.4:**  
Underweight  
Children  
under 5 (0-  
59 months),  
1991-2006

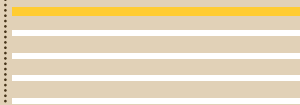


**Figure 2.5:**  
Underweight  
Children (0-59  
months) by  
Health District,  
2002-2006



**Figure 2.6:**  
Adjusted HIV  
Prevalence  
among  
Pregnant  
Women  
(15-49 yrs) by  
District





**Table 2.3:** Spatial Distribution of Destitute Population<sup>3</sup>

District	Rate of Destitution per 1000 Population	Percentage of Destitute Population	Percentage of Total Population
Gaborone	0.8	0.4	13.2
Francistown	5.5	1.3	5.8
Lobatse	5.4	0.4	1.9
Selebi Phikwe	1.0	0.2	3.2
Jwaneng	1.5	0.1	1.0
Sowa Town	0	0	0.2
Southern	32.4	14.2	11.0
South East	14.6	2.4	4.1
Kweneng	34.6	21.6	15.6
Kgatleng	13.8	2.7	4.8
Serowe/Palapye	37.7	15.1	10.2
Mahalapye	20.0	5.5	6.9
Bobirwa	16.6	2.8	4.3
Boteti	37.7	4.9	3.2
Tutume	19.2	6.2	8.1
North East	16.8	2.1	3.1
Ngamiland	22.9	7.6	8.3
Chobe	14.3	0.7	1.3
Ghanzi	75.6	6.6	2.2
Kgalagadi	45.5	5.1	2.8

Source: Report for Destitution and Community Home Based Care programmes, December 2005; Population Projections for Botswana 2001-2031 (Table 3.1, pg 53). Destitutes here refers to permanent and temporary destitutes only.

There was a large surge in adults willing to work at low wages as work opportunities became available during the drought year of 2005-06. Peaks in employment occurred in October and December 2005, and tapered off after December 2005. This could be due to the scaling down of relief intervention because of the improved spatial and temporal distribution of rainfall in 2006/07.

Given the low wage rates and the menial work requirements in relief public works, it is likely that the poor, especially women, self-screen into the programme. As the recent evidence confirms, there is a great deal of correspondence between the profile of the rural poor and the characteristics of the participants in public works: mostly adult females, seeking employment, low educational attainment and having few physical assets (RD CD, 2007a).

## 2.4 RATE OF DESTITUTION

As noted above, there is variation in the depth of poverty amongst the poor. The very poor are found at the lowest end of income (consumption) distribution where poverty is the deepest. These are typically the destitute (the chronic poor), such as the permanent destitutes in the Botswana programme (mostly aged, headed by single females with numerous dependents, little assets or income, and often dependent on public income transfer).

It is unknown how many destitutes are currently covered through the Destitute Programme. However, Table 2.3 shows the rates of destitution and the distribution of destitutes by district, based on 2005 figures showing the number of registered destitutes.

The rate of destitutes per 1000 population is highest in Ghanzi, Kgalagadi, Central (Boteti, Serowe and Palapye), Kweneng and Southern districts. But the highest concentration of the destitute population, as measured by geographical share, is in Kweneng, Southern and Serowe/Palapye in central districts.

This pattern of geographical distribution is similar to the spatial distribution of income poverty in Botswana. The incidence of poverty is high in the southern, southwest and northwest regions of the country. But the poor are concentrated in areas of large population settlements, such as the eastern districts.

<sup>3</sup> Ideally, the last column in Table 2.3 would be the distribution of the poor population by district.



*The child nutritional status, measured by the prevalence of underweight children below five years of age, is markedly low in Botswana.*

## 2.5 UNDERWEIGHT CHILDREN

**Underweight prevalence:** The child nutritional status, measured by the prevalence of underweight children below five years of age, is markedly low in Botswana.

In 2006, the percentage of underweight children nationally was 5.2%. But, as shown in Figure 2.3, there is some variation in the distribution of underweight children across districts. The prevalence is generally lower amongst children in urban areas.

Within the rural districts, child malnutrition tends to be above the national average in Southern, Kgalagadi, Ghanzi and some Central districts (Mahalapye and Tutume). Within these districts, there are areas with rates of prevalence exceeding 20 percent, compared with the national average of 5.2%. This spatial pattern is consistent with the distribution of income poverty where the prevalence rate is high in the southwest and northwest regions (with the exception of lower malnutrition in Ngamiland).

**Changes in underweight prevalence over time:** Over the years, Botswana has recorded a marked decline in the percentage of underweight children: 14% in the early 1990s to 5.2% in 2006 (Figure 2.4). Except for the peak in 1997 and 1998, there has been a steady downward trend. The same pattern of long-term decline is observed in the percentage of children experiencing weight loss for three consecutive months (i.e. growth failure).

These improvements in nutritional status have been attributed to an increase in health clinic attendance, an improvement in the supply of food rations, intensified health education to mothers at health facilities, improved feeding practices, and the effective implementation of disease control through the integrated management of childhood illness (RDCD, 2007b).

Whilst all the districts are showing an improvement in child nutrition over the years, there are some districts that are persistently lagging behind (Figure 2.5): Kgalagadi, Ghanzi, Good Hope and Mabutsane. The reasons for these pockets of malnutrition have not yet been established, yet they underline the need to advocate informed interventions and to monitor their performance.

## 2.6 HIV PREVALENCE

**Recent prevalence rates:** Based on the 2005 HIV surveillance of pregnant women attending antenatal clinics (nearly 100%), the prevalence rate of HIV averages 33.4% (MOH, 2006). The percentages are higher in age groups 25-29 (44.5%), 30-34 (49.2%) and 35-39 (40.2%).

Geographically, the prevalence rates are slightly higher for urban health facilities than for rural (MOH, 2006). But there is considerable variation amongst the health districts, as shown in Figure 2.6.

- The districts with above national averages are Selebi-Phikwe (46.5%), Francistown (42.3%), Tutume (41.3%), Serowe/Palapye (37.5%), and Mahalapye (36.2%).



- The districts that are known for high income poverty prevalence rates register lower rates of HIV prevalence: Kweneng West (27%), Kgalagadi (26.2%) and Ghanzi (20.9%). Such a correlation at district level masks the expected link between the HIV infection rate and poverty.

The population based BAIS II (Botswana AIDS Impact Survey II) shows, as expected, a lower prevalence rate amongst the general population (17.1% in 2004). However, the age-wise pattern remains the same, with high prevalence rates occurring in the 25-39 age groups – the most at risk population segment.

**Prevalence rates over time:** Figure 2.7 tracks the HIV prevalence rates for pregnant women between 1992 and 2005. There was a rapid increase in prevalence between 1992 and 1995.

The prevalence rate crossed the 30% mark in 1995 and continued to increase slowly, then peaked close to 40% in 2002. It has since stabilised close to 35%. The exception was in 2005 when it slightly dropped below 35%. It is not yet certain whether or not the HIV prevalence curve is turning downwards, but the rates appear to be stabilising.

## 2.7 MORTALITY RATES AND LIFE EXPECTANCY AT BIRTH

**Recent mortality rates:** Based on the 2001 population census, the number of deaths per 1000 live births averaged nationally 74 for under-five children and 56 for infants.<sup>4</sup>

The probability of death was higher amongst the boys than girls. Rolang G. Majelantle provides district-specific estimates of the probability of death at different ages using the 2001 population census (CSO, 2003).

The results indicate considerable differences in life expectancy at birth across gender and space. When compared to the rest of the country, “the chances of survival from birth are worse for Northeast, Central, Ngamiland, and Southern Districts,” notes Majelantle.

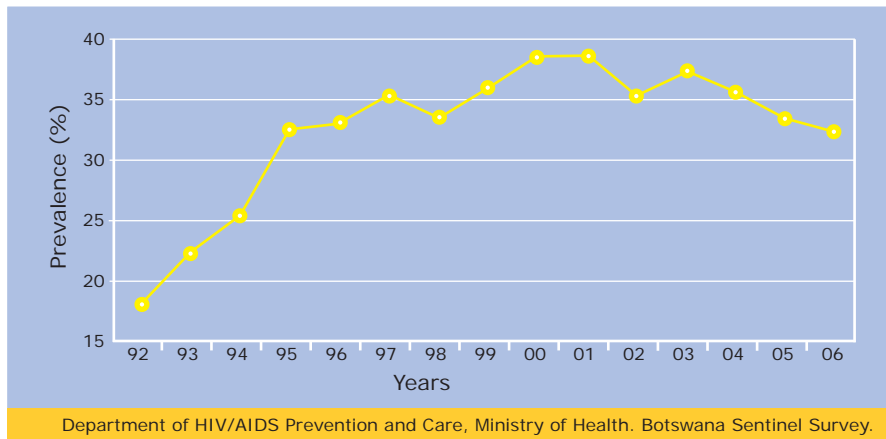
**Trends in child mortality:** The probability of death before the first, and up to the fifth, year was on a long-term downward trend during the 1970s and 1980s, and then reversed beginning in the mid-1990s.

For example, the infant mortality rate declined from 97.1 per 1000 live births in 1971 to 71 per 1000 in 1981 and 48 per 1000 in 1991.

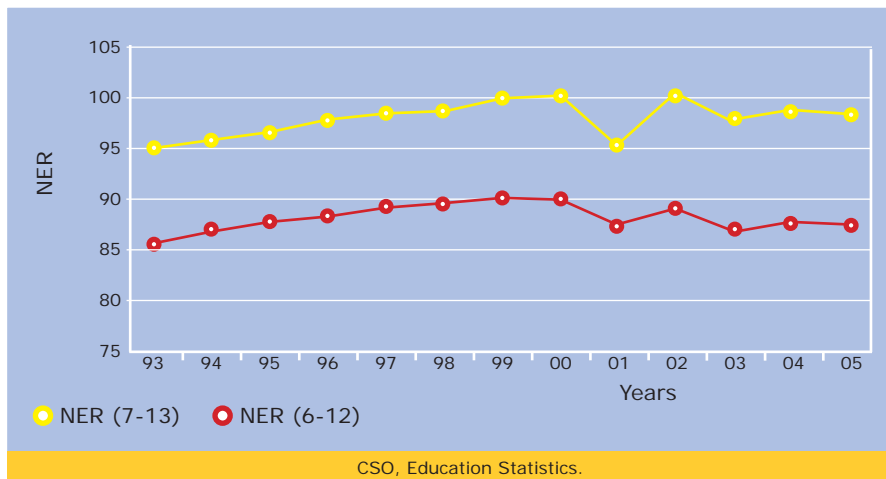
The declining trend continued until the mid-1990s, albeit at a slower rate, and then reversed. The infant mortality rate reached 56 per 1000 in 2001. Such a reversal trend pattern is consistent with countries with high HIV prevalence rates where, over the years, there is a shift in the rank order of the cause of death, with AIDS accounting for the highest disease burden.

<sup>4</sup> The under-five (infant) mortality rate is the probability that a newborn baby will die before reaching age five, subject to current age-specific mortality rates (expressed as a rate per 1000).

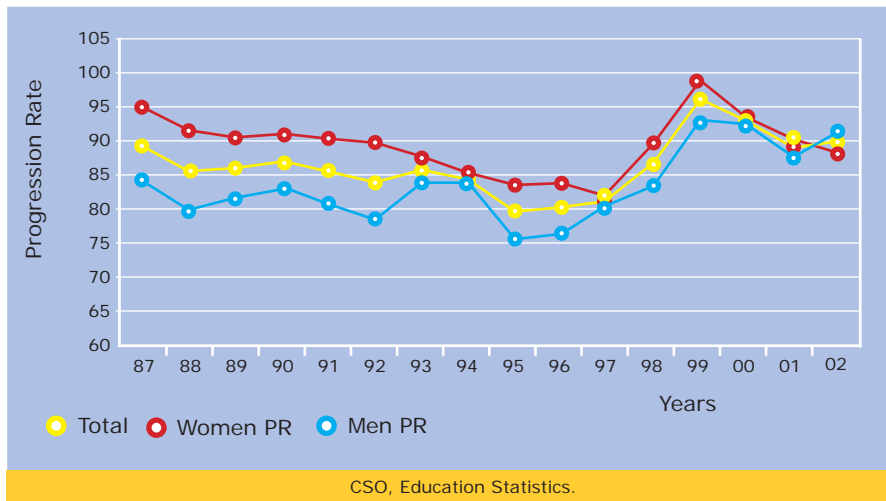
**Figure 2.7:**  
HIV Prevalence  
Rates for  
Pregnant  
Women, 1992-  
2006



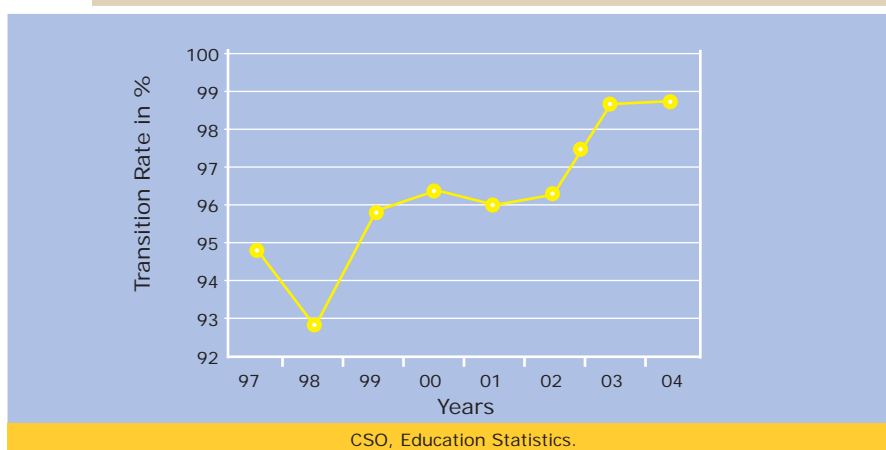
**Figure 2.8:**  
Net Enrolment  
Rates (NER)  
for Primary  
Education,  
1993-2005

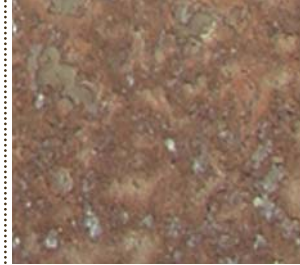


**Figure 2.9:**  
Progression  
Rates from  
Standard 1 to  
Standard 7,  
1987-2002



**Figure 2.10:**  
Transition  
Rates from  
Standard 1 to  
Form 1, 1997-  
2004





## Botswana has attained significant achievements in access to educational and attainment indicators.

**Life expectancy at birth:** A reversal pattern has also been observed in life expectancy at birth: 55 years in 1971, 65.3 years in 1991, and 55.6 years in 2001.

### 2.8 EDUCATIONAL ATTAINMENT AND GENDER EQUALITY

Botswana has attained significant achievements in access to educational and attainment indicators: net enrolment, primary rate completion, transition to higher education, gender equality (the ratio of female to male), and adult literacy (% of people age 15 and older who can, with understanding, read and write).

**Access to education:** Net enrolment rates<sup>5</sup> are close to 100% (Figure 2.8). The country is about to achieve the goal of universal primary education.

**Primary school completion rates:** Once students enter the school system, the rate of progression towards primary school completion is high, exceeding more than 80%, as shown in Figure 2.9 (CSO, 2003). All the districts show strong evidence of universal primary school completion, with a few slightly lagging behind, particularly the western and southwestern districts.

**Transition rates:** Figure 2.10 plots the transition rates from primary (Standard 7) to secondary (Form 1) for the years 1997 to 2004. The transition rates have generally been on the rise since 1997, from 95% in 1997 to about 98.7% in 2004. This shows that more and more Standard Seven leavers are finding places in the secondary school system.

**Gender parity:** There is gender parity in the enrolment of girls and boys in the primary and secondary school systems in Botswana (Figure 2.11). Full parity was achieved in the primary schools in 1995 (ratio of 1). The ratio of girls to boys in enrolment in secondary schools is trending towards parity (i.e. moving towards 1).

**Adult literacy:** Nationally, the average literacy rate amongst people aged 10-70 years is 76.2% (CSO and Department of Non-Formal Education, 2005). The rate is higher in urban areas (85.4%) as compared to rural areas (65.7%). In the rural areas, the rates are generally lower in the western and southwestern districts – Ghanzi, Kgalagadi, Ngamiland West and Kweneng West (Figure 2.12).

### 2.9 VULNERABILITY TO CLIMATE AND HEALTH SHOCKS (COVARIATE RISKS)

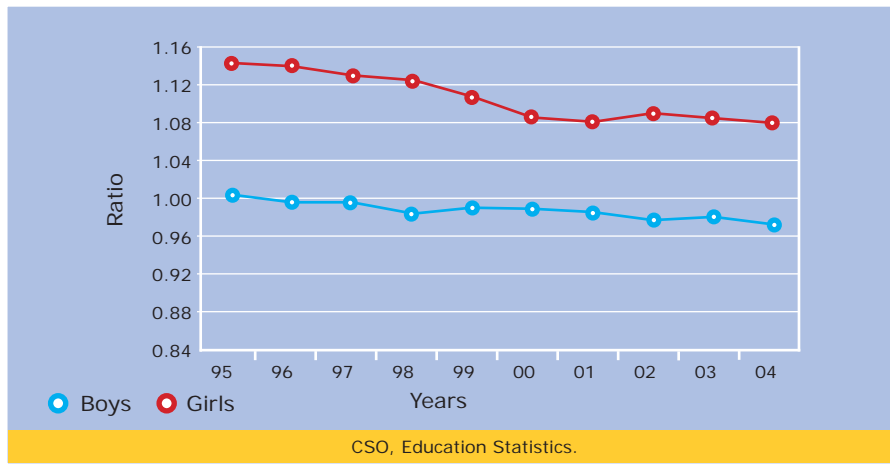
Botswana closely monitors climate-based risks arising from periodic droughts. The country has an early warning system that continuously monitors the occurrence of drought<sup>6</sup> and associated changes in bio-physical and socio-economic conditions.

The Early Warning Technical Committee reports regularly on its assessment of drought and the food security situation to the Inter-Ministerial Drought Committee and Rural Development Council (RDC).

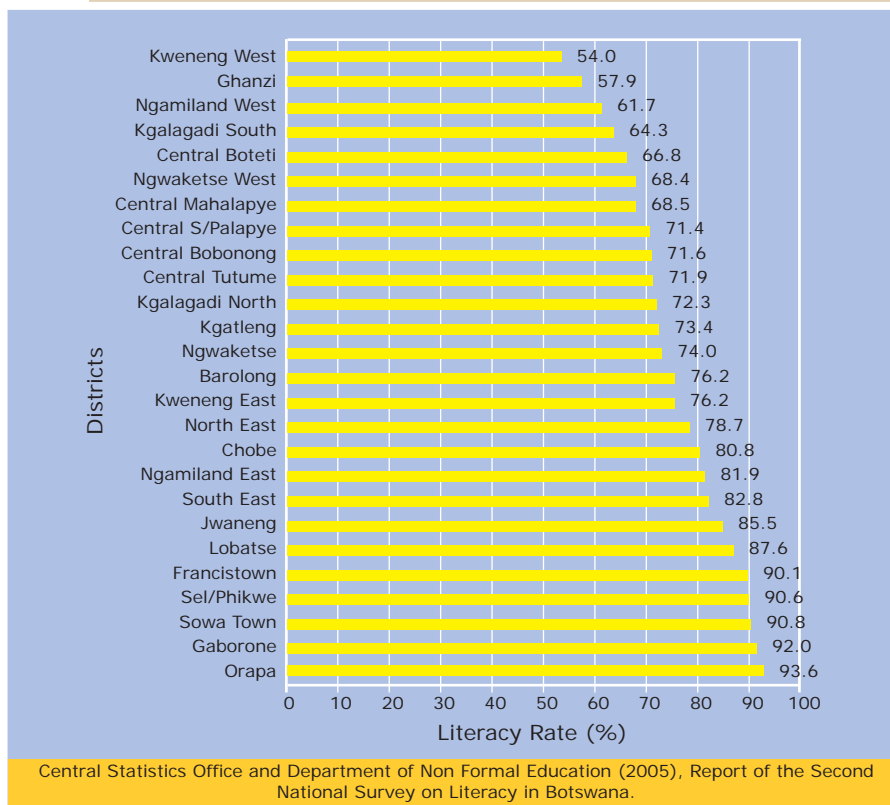
<sup>5</sup> NER is computed as the enrolment of a specified age group/population of that specified age group\*100. It is indicative of the percentage of children of specific age-group who are in the educational system.

<sup>6</sup> Drought is defined as a deficiency in rainfall in terms of its level and spatial-temporal distribution that is severe enough to negatively affect plant growth, water supplies, human livelihood and food security.

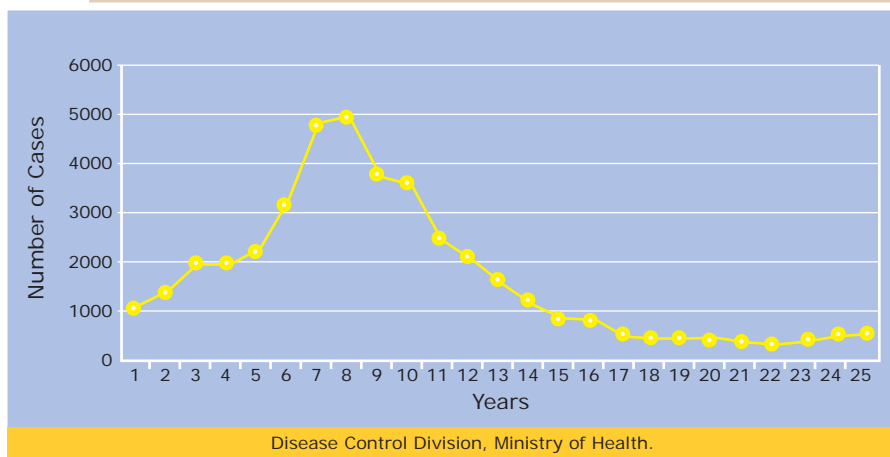
**Figure 2.11:**  
Ratio of Girls  
to Boys in  
Primary and  
Secondary  
Education



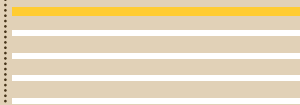
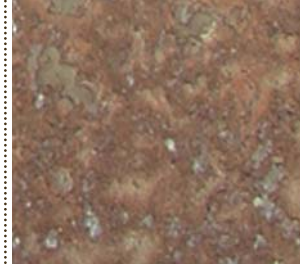
**Figure 2.12:**  
District Adult  
Literacy



**Figure 2.13:**  
Diarrhea  
Cases by  
Week, 2006







The period of 2006/07 was declared a non-drought year, based on the following assessment of the drought and household food security early warning indicators in 2005-06 (RDCD, 2006):

- The seasonal rainfall was normal to above normal, with improving good spatial distribution and fair temporal distribution.
- Vegetation greenness was improving throughout the country.
- Crop production was forecasted to increase because of an expected increase in area ploughed/planted and yields.
- There were good grazing conditions, water availability, and livestock conditions countrywide. The rangeland was expected to sustain livestock and wildlife until the next rainfall season.
- There were no notable signs of stress in household welfare, i.e. the nutritional status of under-fives and the rate of destitution. The household food security situation was expected to improve in 2006/07, and consequently human vulnerability would be minimal.

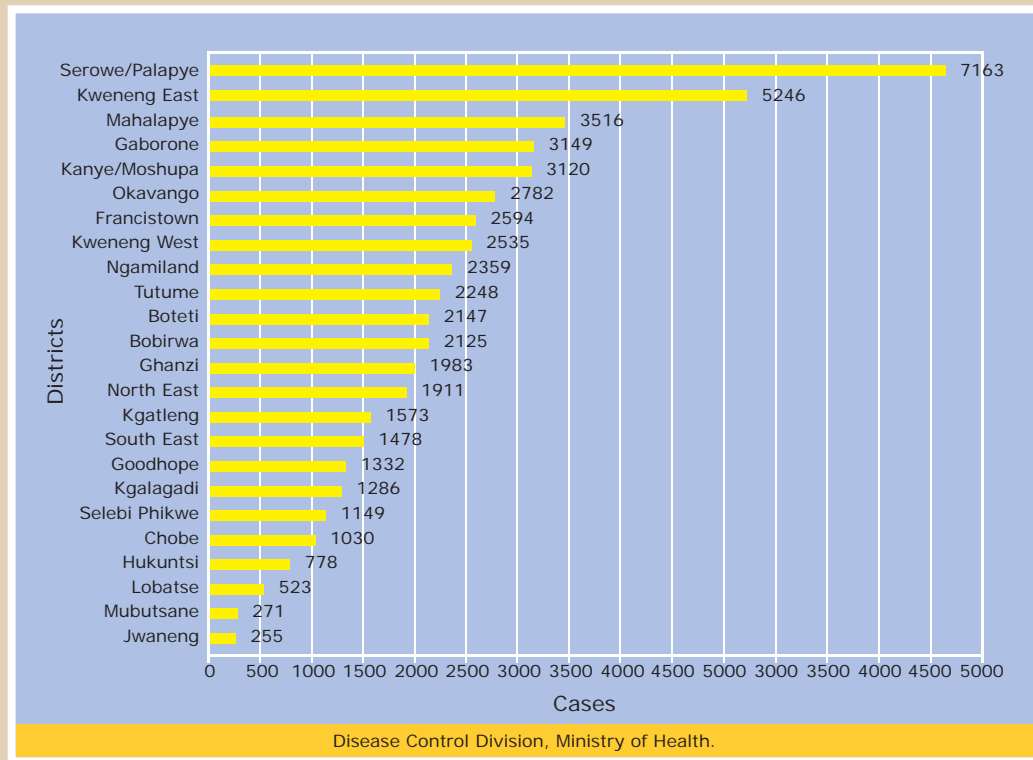
Botswana also monitors the incidence of communicable diseases (e.g. HIV/AIDS, tuberculosis, diarrhea, malaria, etc). Within the Disease Control Division of the Ministry of Health, there is in particular the integrated disease surveillance system that monitors new cases of epidemic-prone diseases (e.g. diarrhea, malaria, cholera, etc.).

The country experienced an outbreak of diarrhea in early 2006. Figure 2.13, based on the under-five diarrhea surveillance data for the first 25 weeks, shows rising numbers of new cases of diarrhea, particularly in the months between January and May 2006. At the peak of the episode, new cases climbed to a little over 5000 per week. The period of the elevated diarrhea outbreak coincided with an increase in child mortality, especially amongst children experiencing growth failure.

Figure 2.14 shows the total cases of diarrhea in the first 47 weeks of 2006 by health district. The most cases of diarrhea were experienced in five health districts (over 3000 cases in 47 weeks): Serowe-Palapye, Kweneng West, Mahalapye, Gaborone and Kanye/Moshupa.

The country continues to register a marked decline in child nutrition.

Figure 2.14:  
District  
Diarrhea  
Cases



## 2.10 CHAPTER SUMMARY

The reported core indicators establish some notable patterns. Income poverty is declining, but still high. Unemployment is high, particularly amongst the youth who are active in the labour market. As the youth come into their prime working age, they are faced with poor prospects of employment and a high risk of HIV infection. Rural wages remain low, particularly in rural areas where productivity is also low.

The country continues to register a marked decline in child nutrition. The trend in HIV infection shows signs of stabilisation, but prevalence rates are still high, especially amongst the child-bearing age groups. The past social gains of declining mortality rates and improved life expectancy are reversing.

Access to primary education is nearly universal. Educational attainment, as measured in primary school completion rates and transition to higher education, is markedly high. These changes are occurring in an environment of slowing population growth that is rapidly urbanising.

The aggregate evidence, however, masks differences in economic and social progress across geographical areas.

## Text Box 1: Drought, Household Food Security and Nutrition Concerns

Household food security is defined as having access to an adequate quantity and quality of food by all members of the family at all times for a productive and healthy life. Among the food insecure, there are chronic households whose mean food consumption is below the required norm; and there are other households that are transient food insecure, that is their mean consumption is above the minimum threshold but they experience temporary declines in access to food.

Attaining food self-sufficiency and meeting food availability at a national level, and locally through markets, are important achievements towards attaining household food security. But even when a country is able to have adequate food availability that can meet the dietary requirements of its people, household food insecurity persists, because some people lack the resources to produce enough or the purchasing power to access the available food. Food insecurity persists at an individual level, even within food secure households where there is inequity in the intra-household distribution of food.

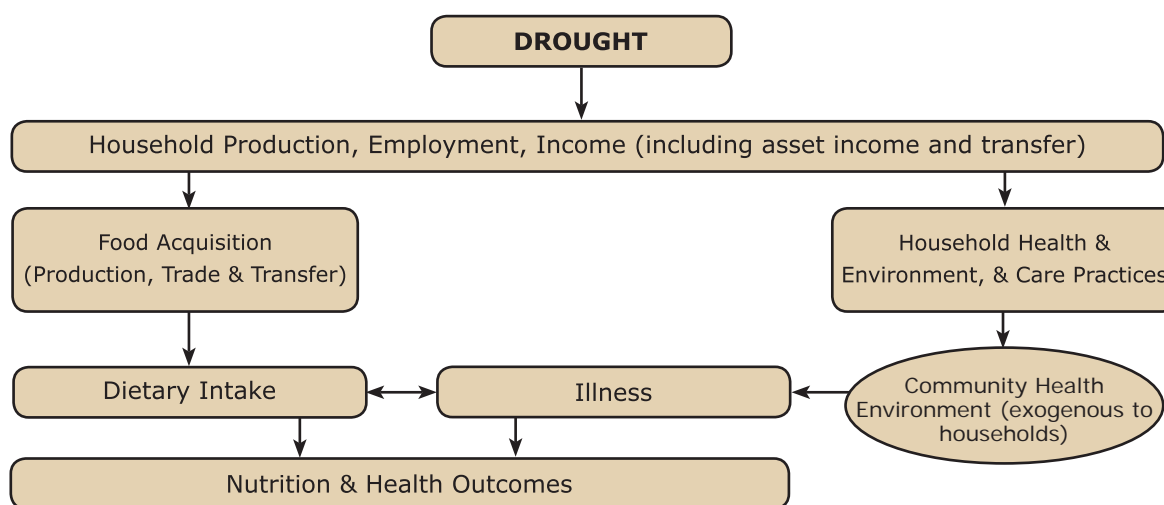
Attaining food security is a necessary condition (or input) for meeting nutritional requirements towards achieving a productive and healthy life. As shown in the flow chart, the dietary intake and health status of an individual directly and interactively influence nutritional outcome such as undernourishment, which is an outcome of an inadequate dietary intake and utilisation due to exposure to illness. These are related in turn to access to food and health services, a sanitary environment and household nutrition care.

There are several indicators of food and nutrition security that are related to the different levels shown in the flow charts and their underlying determinants. However, the common indicators are self-sufficiency in food production, food availability derived from the food balance sheet (food production, net imports and food in stocks) commonly expressed in terms of dietary energy supply, undernourishment derived from actual food consumption (consistent with household food consumption preference and choice), child nutritional outcome (e.g. anthropometric measures) and nutritional status in adults (e.g. body mass index, BMI).

Except for child nutritional status, data on household food and nutrition security hardly exists in Botswana. For example, the nationally representative calorie availability has not been assessed, and hence questions such as what percentage of the population falls below the minimum dietary energy requirement and what has been the change in food poverty over time cannot be assessed. Even more important is evaluating the impact of periodic droughts on stabilising (reducing variance) household food consumption.

The occurrence of drought conditions impact on household food security and nutritional outcomes through the chains shown in the flow chart: decline in food production; contraction of economic activity and employment; deterioration in asset income such as livestock; reduced access to food; and increased disease risk due to poor dietary intake and compromised hygienic environment. The poor are particularly vulnerable to shocks, because of their limited capacity to smooth income and consumption fluctuations.

Public policy can play an important role in preventing or mitigating drought impacts on household food security, nutrition and health through intervention to address the sources of risk: protecting or preserving real income and household assets (e.g. price stabilisation, employment creation, subsidised fodder and water, access to credit); stabilising food consumption (e.g. food price subsidy or targeting food transfer and feeding); and disease prevention (e.g. sanitary and health support). But policy must recognise that households employ various devices to manage risks to reduce income (asset) variability and food consumption, and thus should minimise the crowding out of efficient private mechanisms.



Source: Poverty and Food Security Monitoring Bulletin 2, June 2007.

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