

**SECOND MULTISECTORAL ASSESSMENT ON
THE IMPACT OF THE HUMANITARIAN CRISIS
ON THE LIVES OF WOMEN AND CHILDREN IN
MOZAMBIQUE**

**Summary of the Main Findings and
Recommendations**

**Maputo - Gaza - Inhambane - Manica - Sofala - Tete
Nov. - Dec. 2002**

Final Report

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Table of Contents

ACKNOWLEDGEMENTS	1
EXECUTIVE SUMMARY	3
INTRODUCTION	4
METHODOLOGY	4
DESCRIPTION OF THE SAMPLE	5
DEMOGRAPHICS	6
MALNUTRITION	8
KEY FINDINGS	8
<i>Acute Malnutrition</i>	8
<i>Chronic Malnutrition</i>	10
COMPARATIVE ANALYSIS.....	11
MORBIDITY	12
KEY FINDINGS	12
<i>Diarrhoeal diseases</i>	12
<i>Fever</i>	13
<i>Conjunctivitis</i>	13
COMPARATIVE ANALYSIS.....	14
MEASLES IMMUNISATION & VITAMIN A SUPPLEMENTATION	16
KEY FINDINGS	16
<i>Measles immunisation</i>	16
<i>Vitamin A supplementation</i>	17
COMPARATIVE ANALYSIS.....	18
CARE PRACTICES	19
KEY FINDINGS	19
<i>Breastfeeding and Introduction to Complementary Foods</i>	19
<i>Feeding Frequency</i>	20
<i>Hand-washing</i>	21
WATER AND HYGIENE	22
KEY FINDINGS	22
COMPARATIVE ANALYSIS.....	24
EDUCATION	26
KEY FINDINGS	26
COMPARATIVE ANALYSIS.....	27
SPECIAL PROTECTION	28
KEY FINDINGS	28
CONCLUSIONS AND RECOMMENDATIONS	30
CONCLUSIONS	30
RECOMMENDATIONS:	31

EXECUTIVE SUMMARY

The accumulated effects of several natural disasters have resulted in a number of highly vulnerable areas within Mozambique. With poor rains through the 2001/2002 rainy season, and below average rainfall predicted for the 2002/2003 rainy season, the impacts of the developing drought have been continuously monitored through the co-ordinated efforts of the national Vulnerability Assessment Committee (VAC).

The November-December 2002 multi-sectoral VAC assessment aimed to assess the impact of the drought, and the level of vulnerability within communities in the most affected areas of the country. This report presents further analysis of the multi-sectoral data collected during that assessment. The results show clear signs of vulnerability, both in terms of expected norms and standards and in comparison to key indicators included in the QUIBB¹.

1. The elevated levels of global acute malnutrition (wasting) in the target areas compared to earlier QUIBB data suggest that, at minimum, the communities covered by the survey are in worse condition now than the respective provinces as a whole 18 –24 months ago. Children are generally at greatest risk of becoming malnourished as they are being weaned, between 6-23 months, and need frequent feeding during this time. In the surveyed areas, however, only 32.0% children in the age group 6-23m are fed three or more meals and snacks a day, and a mere 2.3% receive food a recommended four times a day or more.
2. The consistently high rates of chronic malnutrition (stunting) and high morbidity, including endemic malaria, found in the surveyed areas constitute a real threat to the well-being of these communities, especially given the high HIV prevalence estimates prevailing in these areas, and documented food deficits. In the face of such threats, access to and use of preventative health services is very important. Nevertheless, the survey shows relatively low rates of measles immunisation and Vitamin A administration.
3. People in the target areas are now further away from their usual water source (7.4%), consuming less water (12.5%) and using a different source (11.3%) than last year during the same period. This situation may contribute to further increases in hygiene related illnesses and will increase the likelihood of opportunistic infections among people living with HIV/AIDS (PLWHA).
4. Small sample sizes prevent us from drawing definitive conclusions about the status of children and households assumed to be particularly vulnerable – these include maternal orphans, child- and elderly-headed households, and those with a chronically ill adult. However, the demographic data demonstrates that a not insignificant number of children are living in these circumstances.
5. With a few exceptions, there is little evidence yet that families are coping with these crises by removing children from school or otherwise compromising their futures through child labour, trafficking or early marriage. However, school dropout rates are a perennial problem in Mozambique, and the survey does point to some instances of children leaving home for work and early marriage.

¹ Questionário de Indicadores Básicos de Bem-Estar, Instituto Nacional de Estatística, 2000-2001.

INTRODUCTION

Following below average rainfall during the period January – March 2002, the Ministry of Agriculture, in co-ordination with the National Disaster Management Institute, WFP and FAO, issued a report on the expected impact this would have on agricultural production throughout the country. In order to monitor the food security situation in Mozambique, the national Vulnerability Assessment Committee (VAC) established a timetable for regular situation assessments. Efforts were made to incorporate additional information into the standard food and crop assessment methodology, in order to have a broader picture of the impact of the dry spell. As a result, through June and July 2002, UNICEF worked with the Ministries of Health, Public Works, Women and Social Action, as well as the National Disaster Management Institute, to develop and implement a rapid multi-sectoral assessment in ten of the worst affected districts (as identified by the April Food Security Assessment). The data from this assessment was included in the August 2002 VAC report.

As analysis of the crisis developed, it became clear that although the drought had been a catalyst for the food insecurity being experienced, the underlying causes were much more complex. The impact of HIV/AIDS was seen to be one of the main factors, reducing household productive capacity at a time when additional human resources were needed to cope with the additional burden of looking for food, walking greater distances to collect water, and taking care of sick family relatives.

In order to gain a deeper insight into the combined impact of the drought and the HIV/AIDS epidemic, it was agreed at the regional level that further monitoring and analysis of the situation was required. UNICEF worked in co-ordination with the members of the national VAC to ensure that the subsequent round of assessments would include a more detailed multi-sectoral assessment of vulnerabilities within the affected population, and the main impacts the humanitarian crisis was having on children, women and communities more generally.

The assessment was carried out in November – December 2002. Selected areas were covered in six provinces, taking into account those which appeared to have the greatest food deficit problems and highest estimated HIV prevalence. Initial data was included in the December VAC report, released on 17th January 2003. The final report on the multi-sectoral data², including detailed explanations of the sampling methodology used and an analysis on the statistical validity of each set of indicators has been compiled and is also available.

This present report was compiled to summarise the most important findings from the assessment, and to try to put these into context by comparing the data with existing national survey data. Recommendations for action have also been included.

METHODOLOGY

The survey was implemented in November and December 2002 in selected areas in six provinces of Mozambique: Maputo, Gaza, Inhambane, Sofala, Manica and Tete. The target population was selected among the areas believed to be most affected by the current humanitarian situation.

² GOM/UNICEF (2003), “Second Multi-sectoral Assessment on the Impact on the Humanitarian Crisis on the Lives of Women and Children in Mozambique : Final Report”

The target population includes 1,036,518 inhabitants, or 13.4% of the total population of the six provinces. It is important to note that the results presented in this report are only representative of this target population. The overall number of households in the target areas is 232,012 and the mean number of residents per household is 4.5.

Within the target areas of each province, thirty clusters were chosen at random through systematic sampling with probability proportional to the size of the population (PPS), using the figures from the 1997 census. This amounted to a total of 180 intended clusters. In each cluster, the enumerators were instructed to select households at random, following a pre-determined methodology. The survey of a cluster was considered to be complete once they covered 45 households or 30 children under 5 years old (U5Y), whichever occurred first.

The questionnaire was developed centrally and pre-tested. Enumerators and supervisors were trained in Maputo and received a detailed field guide.

Each one of the 5532 questionnaires was entered twice in EpiInfo 6.04d by two different data entry clerks. The "Validate" component of EpiInfo was then run to identify differences between the two entries. The paper questionnaires were used to verify the answer and the mistakes were corrected in the database. This process was repeated several times until the two entries were identical. After validation, data entry error was estimated inferior to 0.1%.

Weighting terms were used in the analysis to compensate for potential biases resulting from the sampling procedure and different response rates. Two weighting formulas were used: one for individual level estimates, and the other for household level estimates.

Since clusters were selected at random with PPS, each cluster is meant to represent the same number of individuals. The weighting term ensures this when response rates differ among clusters. Further when calculating overall estimates (i.e. single estimates for the six provinces), it ensures that the different sizes of the target populations among the provinces are reflected in the estimates. Thus, in an overall estimate, provinces with larger target populations are given more weight than provinces with smaller target populations.

The full report contains a detailed section describing the methodology used.

The present report summarises key findings and compares results with existing national survey data (QUIBB 2000-2001), at national and provincial levels. Comparisons with the August multi-sectoral assessment have not been made due to the differences in the reference populations of the two samples.

DESCRIPTION OF THE SAMPLE

Table 1: Number of households surveyed

Province	Households selected	Completed household surveys obtained
Maputo	1001	1000
Gaza	674	674
Inhambane	1164	1137
Sofala	1021	1016
Manica	653	653
Tete	1019	1018
Overall	5532	5498

The distribution of the number of households surveyed within the targeted areas of each province is presented in Table 1. As the table shows, enumerators completed surveys in all but 34 of the selected households, reaching over 99% of the selected households. Unless otherwise indicated, the statistics in this report refer to the 5498 households where interviews were completed.

The sample was designed to include a minimum of 900 children aged 6-59 months. This was done in all but one province, where some children were lost due to age misclassification, resulting in a sample of 845. However, even this smaller sample is of reasonable size. The sampling of children can thus be considered excellent and, for variables with good response rates, should ensure a good precision of most indicators of interest in this survey.

Table 2: Distribution of age groups in the sample and in the population

Age group	Proportion in the sample	Proportion in the population ³
0-17 years	53.8%	50.9%
18-59 years	41.2%	44.3%
60+ years	5.0%	4.8%
06-11 months	12.8%	12.7%
12-23 months	24.8%	23.4%
24-35 months	22.9%	22.2%
36-47 months	21.9%	21.3%
48-59 months	17.6%	20.4%

Table 2 compares the age groups of household members from the final survey sample to the ages found in the general population in Mozambique. The age group proportions in our sample compare well with those of the population. Sex distribution was likewise in keeping with national and age-specific population data. This demonstrates that the sample represents the overall population well. Moreover, it was not necessary to adjust the results for the age groups. This is an important advantage in term of simplicity of the analysis.

DEMOGRAPHICS

Table 3: Dependency ratio and effective dependency ratio

All residents	n	Dependency ratio ⁴	Effective dependency ratio ⁵
Overall	31,714	1.54	1.55
Maputo	5526	1.41	1.42
Gaza	5252	1.53	1.55
Inhambane	6405	1.36	1.37
Sofala	5521	1.42	1.42
Manica	3748	1.61	1.62
Tete	5262	1.78	1.78

The dependency ratio calculated in this survey measures the ratio of children below 18 years and elderly adults sixty years and over to total adults 18-59 years per household. The effective dependency ratio is different only in that it transfers ill adults from the denominator to the numerator. Overall, the dependency ratio in the targeted population is 1.54 with only

³ Source: INE, projections for 2002 (adapted)

⁴ Dependency ratio = ((children < 18y) + (adults ≥60y)) / (adults 18-59y)

⁵ Effective dependency ratio = ((children < 18y) + (adults ≥60y) + (sick adults 18-59y)) / (healthy adults 18-59y)

small variations between the provinces. No comparisons with other surveys can be offered, as different age definitions were used to determine dependency than used in other studies.

Table 4: Vulnerability factors based on household status

Households	n	Female headed HH	Child headed HH	Elderly headed HH	Elderly headed HH with no other adults	HH with chronically ill adult
Overall	5498	33.8%	0.7%	9.0%	4.3%	1.2%
Maputo	1000	30.8%	0.2%	13.7%	9.0%	1.7%
Gaza	674	31.6%	2.1%	15.8%	3.7%	5.1%
Inhambane	1137	45.2%	1.7%	13.8%	8.2%	1.5%
Sofala	1016	38.6%	0.3%	8.3%	3.7%	0.3%
Manica	653	29.7%	0.3%	3.7%	0.5%	0.2%
Tete	1018	27.9%	0.4%	5.9%	2.9%	1.0%

Female-headed households represent 33.8% of all households in the targeted population. There are in particularly large proportions in Inhambane (45.2%) and Sofala (38.6%). Child headed households generally represent less than one per cent of all households except in Gaza (2.1%) and Inhambane (1.7%). Elderly headed households have been here defined as families where the head of the household is 60 years of age or more and that have at least one child (<18y). There are 9.0% such households in the targeted areas, with particularly high proportions in Gaza, Inhambane and Maputo. The sixth column presents the percentage of elderly headed households that don't have another healthy adult below the age of 60. These are understood to be more vulnerable than the former. Using this more restrictive definition, the proportion of elderly headed households passes to 4.3%, Maputo and Inhambane still presenting the highest numbers. The earlier definition is used when analysing the status of elderly headed households for different indicators. Households with chronically ill adult(s) are particularly numerous in Gaza (5.1%), in contrast with the rest of the targeted areas, which show an overall percentage of 1.2%.

Table 5: Maternal orphans

Children	VS N (<18y)	Children < 18y Vulnerability Survey	Children < 15y		Children < 5y	
			VS	QUIBB	VS	QUIBB
Overall	16,213	3.0%	2.5%	2.5%	1.2%	0.7%
Maputo	2675	3.5%	2.9%	2.4%	1.4%	0.1%
Gaza	2648	2.0%	1.6%	2.1%	0.6%	0.3%
Inhambane	2984	2.8%	2.3%	4.0%	1.5%	0.3%
Sofala	2808	2.7%	2.2%	3.7%	0.6%	1.2%
Manica	2064	2.3%	1.9%	3.7%	0.7%	0.6%
Tete	3034	4.0%	3.4%	1.5%	1.8%	1.2%

While the overall proportion of orphans under 15 years in the targeted areas are similar to those found in the QUIBB, there are some noteworthy variations. The sampled area in Tete has over twice the rate found in the province as a whole, while rates in the Sofala and Manica samples are lower. **The rate of orphaning among younger children is higher in all provinces, suggesting that the targeted areas are experiencing this as a more recent phenomena. This would increase the vulnerability of these communities who have not yet adapted to these losses, and might suggest a trend of increasing adult deaths.**

MALNUTRITION

Key findings

Acute Malnutrition

Global acute malnutrition, also described as wasting, indicates very recent or current nutritional deficiency. It is thus the most useful of the various malnutrition indicators for identifying current deficits. Acute malnutrition is determined by comparing the child's weight for height with that of an internationally established reference population. When the result deviates from the expected norm by – 2 standard deviations (SD) or more, the child is considered to be suffering from acute malnutrition. Variations of –2SD or more are defined as global acute malnutrition, while variations of –3SD indicate severe acute malnutrition. All children suffering from oedema, a medical condition brought about by acute malnutrition, are classified as having severe acute malnutrition.

Table 6 : Global Acute Malnutrition in children 6-59m

Children 6-59m	n	Global Acute Malnutrition ($\leq -2SD$)	Severe Acute Malnutrition ($\leq -3SD$)
Overall	4887	6.4%	2.4%
Male	2377	6.7%	2.6%
Female	2455	6.2%	2.1%
Maputo	772	8.0%	4.8%
Gaza	861	11.2%	5.8%
Inhambane	659	4.6%	2.2%
Sofala	858	4.0%	0.7%
Manica	804	6.7%	2.3%
Tete	933	6.7%	1.6%
Child is maternal orphan	81	9.3%	3.5%
Child in female headed HH ¹	1372	6.8%	2.6%
Child in elderly ² headed HH	422	6.4%	2.9%
Child in child ³ headed HH	40	3.0%	3.0%
Child in HH with ill adult(s)	65	3.6%	3.6%

¹ HH = Household

² Elderly headed HH = Age of head of HH is 60y or more and at least one child less than 18y

³ Child headed HH = Age of head of HH household is less than 18y

Overall acute malnutrition in children 6-59m is 6.4%, which corresponds to a population with a poor nutritional status.⁶ Prevalence of acute malnutrition is higher in Gaza and Maputo, followed by Manica and Tete, and then Inhambane and Sofala. There does not appear to be a significant difference for wasting between boys and girls. This is in keeping with the findings of previous studies in Mozambique.

⁶ According to World Health Organisation, the severity of acute malnutrition in a community can be classified as follows:

Prevalence of acute malnutrition (% below median – 2SD)	Severity of malnutrition
<5%	Acceptable
5-9%	Poor
10-14%	Serious
≥ 15%	Critical

Source: *The Management of Nutrition in Major Emergencies*, World Health Organisation, 2000, p.40

Children in female- and elderly- headed households show levels of acute malnutrition comparable to the rest of the population. For the case of maternal orphans, children in child headed households and children in households where chronically ill adult live, the small number of individuals in the sample precludes meaningful interpretation.

Table 7: Acute malnutrition in children 6-59m in relation to morbidity and care practices

Children 6-59m	n	Global Acute Malnutrition $\leq -2SD$	Severe Acute Malnutrition $\leq -3SD$
Child without diarrhoea	3385	4.7%	1.9%
Child with diarrhoea (last 2w)	1473	10.1%	3.2%
Child without fever	2656	5.9%	1.9%
Child with fever (last 2w)	2197	7.0%	2.8%
Child fed 4+ meal/day ¹	42	4.0%	0.0%
Child fed <4 meals/day ¹	1553	9.7%	2.7%
Child in HH ² with safe ³ water	1774	5.8%	2.2%
Child in HH with unsafe water	3028	6.6%	2.3%

¹ Feeding frequency and breastfeeding = only for children 6-23m

² HH = household

³ Safe water = from a network, a well with a pump or a protected well (otherwise unsafe)

Children with diarrhoea (in the last two weeks) show a much higher, statistically significant, proportion of acute malnutrition than children without diarrhoea. At provincial level this trend is maintained although with variations from province to province. Children with fever (in the last two weeks) also show a higher prevalence of acute malnutrition but the association is not as strong as in the case of diarrhoea and not statistically significant. Children fed less than four times a day, or not given vitamin A supplementation in the last six months, or living in households where water is unsafe all show levels of acute malnutrition somehow higher than more fortunate children, although none of these differences are statistically significant.

Table 8: Wasting prevalence according to MUAC and weight for height measurements

Children 6-59m		n	MUAC			Weight for height	
			$\leq 125mm$ or oedema	$\leq 120mm$ or oedema	$\leq 110mm$ or oedema	$\leq -2SD$ or oedema	$\leq -3SD$ or oedema
Overall	M+F	4887	8.6%	5.7%	3.0%	6.4%	2.4%
	M	2377	7.7%	5.3%	2.7%	6.7%	2.6%
	F	2455	9.4%	6.1%	3.2%	6.2%	2.1%
	06-23m	1793	15.9%	9.7%	4.4%	9.4%	2.8%
	24-59m	2920	4.2%	3.4%	2.1%	4.4%	

The middle upper arm circumference (MUAC) is often used as a substitute for weight-for-height when conditions do not permit the measurement of weight and height in a large number of children. MUAC was measured in this study in order to compare its results with weight for height measurements, which is the internationally recognised standard indicator for acute malnutrition. *Table 8* shows prevalence of acute malnutrition according to three MUAC cut-off points: 125mm, 120mm and 110mm. In this sample, it can be seen that $\leq -2SD$ overall for both sexes is comparable to $\leq 120mm$ of MUAC. Similarly $\leq -3SD$ is comparable to $\leq 110mm$ of MUAC with less than one percent difference in both cases.

There are well-established statistical methods to judge the performance of diagnosis tests. These methods have here been applied to compare MUAC, a rapid and simple method often used for estimating wasting, with weight for height. Results suggest that MUAC is satisfactory in estimating the proportion of children with acute malnutrition in a population, especially if adjustments are made for certain known biases related to age groups.

Chronic Malnutrition

Chronic malnutrition, also described as stunting, reveals growth deficit usually due to long term or past nutritional deficiency and/or repeated illness. It is thus the most useful of the various malnutrition indicators for identifying long term vulnerability. Stunting is determined by comparing the child's height-for-age with that of an internationally established reference population. When the result deviates from the expected norm by -2 standard deviations (SD) or more, the child is considered to be suffering from chronic malnutrition. Variations of -2 SD or more are defined as global chronic malnutrition, while variations of -3 SD indicate severe chronic malnutrition.

Table 9: Prevalence of Chronic Malnutrition among children 6-59m.

Children 6-59m	n	Global Chronic Malnutrition ≤ -2 SD	Severe Chronic Malnutrition ≤ -3 SD
Overall	4657	37.9%	15.0%
Male	2285	39.4%	15.9%
Female	2328	36.4%	14.2%
Maputo	725	32.7%	14.5%
Gaza	830	31.9%	11.5%
Inhambane	611	37.0%	16.5%
Sofala	803	34.8%	14.2%
Manica	774	41.7%	18.9%
Tete	914	42.0%	13.8%
Age group 06-23m	1788	34.5%	13.3%
Age group 24-59m	2869	40.0%	16.1%
Child is maternal orphan	77	46.2%	19.3%
Child in female headed HH ¹	1312	41.4%	16.9%
Child in elderly ² headed HH	397	32.3%	12.9%
Child in child ³ headed HH	40	40.6%	19.7%
Child in HH with ill adult(s)	61	43.4%	11.5%

¹ HH = Household

² Elderly headed HH = Age of head of HH is 60y or more and at least one child less than 18y

³ Child headed HH = Age of head of HH household is less than 18y

Table 9 above shows a high prevalence of chronic malnutrition in all provinces and sub-groups. Children living in female- and child-headed households, households with ill adults and maternal orphans all show slightly higher prevalence rates than the overall average but the differences are not statistically significant, due to the small sample size.

Comparative Analysis

Table 10: Malnutrition in QUIBB 2000/01 and Vulnerability Assessment (VAC) 2002

Children	Global Acute Malnutrition		Global Chronic Malnutrition	
	QUIBB	VAC	QUIBB	VAC
Overall	5.5%	6.4%	43.8%	37.9%
Male	5.5%	6.7%	46.7%	39.4%
Female	5.5%	6.2%	41.2%	36.4%
Maputo	3.3%	8.0%	26.2%	32.7%
Gaza	3.9%	11.2%	35.4%	31.9%
Inhambane	4.4%	4.6%	31.2%	37.0%
Sofala	3.8%	4.0%	44.6%	34.8%
Manica	4.5%	6.7%	40.1%	41.7%
Tete	6.1%	6.7%	44.5%	42.0%

Global acute malnutrition data are somewhat higher overall, and notably higher in Maputo, Gaza, and Manica, than found for each of these province as a whole during the QUIBB in 2000/2001. Chronic malnutrition rates are comparable, though with some variations between provinces. It is important to note, however, that stunting rates overall in Mozambique are very high, a situation confirmed in the targeted areas. **The higher acute malnutrition rates appear to confirm the detrimental effect of the current complex situation in which the effects of drought and high HIV/AIDS prevalence are combined.** The nutritional situation of children in the targeted areas of Maputo and Gaza is particularly poor.

MORBIDITY

Key Findings

Diarrhoeal diseases

The prevalence of diarrhoeal diseases can be used as a good proxy indicator on hygiene conditions and practices. It is also an important indicator due to the significant impact that diarrhoea can have on the nutritional status of an individual.

Table 11: Period prevalence of diarrhoeal disease (in last 2 weeks) in children 6-59m.

Children 6-59m	n	Period prevalence of diarrhoea
Overall	5440	31.2%
Male	2660	31.6%
Female	2706	30.7%
Maputo	873	21.5%
Gaza	969	28.7%
Inhambane	817	26.5%
Sofala	885	32.5%
Manica	905	34.6%
Tete	991	35.3%
Age group 06-23m	1975	42.6%
Age group 24-59m	3246	24.1%
Child in HH ¹ with safe ² water	2007	30.3%
Child in HH without safe water	3326	32.1%
Child in HH consuming less water than last year	1379	32.0%
Child is maternal orphan	90	26.9%
Child in female headed HH	1530	33.0%
Child in elderly ³ headed HH	484	31.7%
Child in child ⁴ headed HH	52	21.2%
Child in HH with ill adult(s)	76	33.5%

¹ HH = Household

² Safe water = from a network, a well with a pump or a protected well (otherwise unsafe)

³ Elderly headed HH = Age of head of HH is 60y or more and at least one child less than 18y

⁴ Child headed HH = Age of head of HH household is less than 18y

Table 11 above shows a period prevalence of diarrhoea in the last two weeks preceding the survey is overall 31.2% in the target areas. Prevalence by province varies from 21.5% (Maputo) to 35.3% (Tete). There is no significant difference between sexes. However, the age group 06-23m experience 77% more diarrhoeal diseases than the older children. This difference is highly significant and remains significant at provincial level. The use of a safe or unsafe water source in the household does not appear to make much of a difference for this indicator. The status of the head of household does not appear to be significantly associated with the prevalence of diarrhoea in children.

As discussed in the nutrition section (See Table 7), children with diarrhoea in the last 2 weeks show a much higher rate of wasting (10.1%) compared with those without diarrhoea (4.7%).

Fever

This indicator was included in the assessment due to the highly endemic nature of malaria in Mozambique.

Table 12: Period prevalence of fever (in last 2 weeks) in children 6-59m.

Children 6-59m	n	Period prevalence of fever
Overall	5435	45.1%
Male	2662	45.0%
Female	2701	45.3%
Maputo	871	39.4%
Gaza	967	43.9%
Inhambane	818	46.4%
Sofala	887	48.2%
Manica	902	42.8%
Tete	990	45.9%
Age group 06-23m	1973	53.3%
Age group 24-59m	3246	40.0%
Child is maternal orphan	89	36.1%
Child in female headed HH ¹	1534	46.0%
Child in elderly ² headed HH	483	48.8%
Child in child ³ headed HH	52	23.0%
Child in HH with ill adult(s)	76	54.8%

¹ HH = Household

² Elderly headed HH = Age of head of HH is 60y or more and at least one child less than 18y

³ Child headed HH = Age of head of HH household is less than 18y

Period prevalence of fever in the last two weeks preceding the survey is overall of 45.1% in the target areas. Prevalence by province varies from 39.4% (Maputo) to 48.2% (Sofala). There is no significant difference between sexes. However, age group 06-11m experiences a significantly higher prevalence of fever than the older children and this difference remains significant for several of the provinces as well. The status of the head of household does not appear to be significantly associated with this indicator except for child headed households where it is lower (23.0%). **While some allowances must be made for misdiagnosis of fever and the fact that fever is a common symptom of other diseases, the extremely high prevalence does appear to highlight the endemic nature of malaria in Mozambique, and the risk it presents for children already living in vulnerable circumstances.**

Conjunctivitis

This indicator can be used as a proxy indicator of hygiene conditions and practices.

Table 13 shows overall prevalence of conjunctivitis in children 6-59m of 16.9% with large variations between the provinces from 5.0% (Maputo) to 26.1% (Manica). The disease appears to be evenly distributed among sexes. However, there is a significant difference of 4.1% between age groups 6-23m and 24-59m. **Although the distance from the water source is not significantly associated with conjunctivitis, the hand washing habits appear to be, with 30% more conjunctivitis in children of households where soap is not used to wash the hands.** This is not surprising when considering the known important role that dirty hands have in the epidemiology of the disease.

Table 13: Prevalence of conjunctivitis in children 6-59m.

Children 6-59m	n	Prevalence of conjunctivitis
Overall	5276	16.9%
Male	2580	17.3%
Female	2632	16.6%
Maputo	849	5.0%
Gaza	955	11.6%
Inhambane	728	8.5%
Sofala	874	12.8%
Manica	892	26.1%
Tete	978	25.1%
Age group 06-23m	1942	19.4%
Age group 24-59m	3143	15.3%
Child in HH ¹ reaching water source in ≤ 30 min.	3596	16.5%
Child in HH reaching water source in > 30 min.	1600	18.3%
Child in HH consuming less water than last year	1350	17.1%
Child in HH hand washing with soap or ashes	2365	13.6%
Child in HH hand washing with only water or something else than soap or ashes	2754	19.6%
Child is maternal orphan	86	41.0%
Child in female headed HH	1476	16.5%
Child in elderly ² headed HH	460	9.5%
Child in child ³ headed HH	48	13.3%
Child in HH with ill adult(s)	70	11.6%

¹ HH = Household

² Elderly headed HH = Age of head of HH is 60y or more and at least one child less than 18y

³ Child headed HH = Age of head of HH household is less than 18y

As far as the status of the head of the household is concerned, it would appear that children living in elderly headed households enjoy some level of protection regarding conjunctivitis when compared to the overall population.

Comparative Analysis

Table 14: Diarrhoea and fever prevalence in QUIBB 2000/01 and Vulnerability Assessment (VAC) 2002

Children < 5 years	Diarrhoea in last 2 weeks		Fever in last 2 weeks	
	QUIBB	VAC	QUIBB	VAC
Overall	6.2%	31.2%	14.3%	45.1%
Male	6.5%	31.6%	14.3%	45.0%
Female	5.8%	30.7%	14.4%	45.3%
Maputo	4.2%	21.5%	15.9%	39.4%
Gaza	5.4%	28.7%	14.8%	43.9%
Inhambane	6.4%	26.5%	17.8%	46.4%
Sofala	4.8%	32.5%	16.2%	48.2%
Manica	4.5%	34.6%	14.4%	42.8%
Tete	7.1%	35.3%	18.1%	45.9%

A comparison between the data from the national QUIBB survey and the present vulnerability survey shows rates of diarrhoea about five times higher and of fever three times higher in the two week period preceding the survey. Some affects of seasonality

cannot be ruled out (the vulnerability survey was completed in November while QUIBB was undertaken Oct-May). However, given the degree of the difference and the consistency of the data in both surveys, these comparisons appear to suggest a higher vulnerability to disease in the areas targeted by this survey.

MEASLES IMMUNISATION & VITAMIN A SUPPLEMENTATION

Key Findings

Measles immunisation

Health card coverage can be used as a proxy indicator of access to and use of health services in the surveyed areas.

Table 15: Coverage of health cards and vaccination for measles in children 12-23m.

Children 12-23m	n	Children with health card	Percentage vaccinated for measles	
			Children with health card	All children
Overall	1295	84.0%	86.5%	71.5%
Male	642	82.5%	87.8%	70.7%
Female	636	85.3%	85.1%	72.5%
Maputo	176	94.3%	92.5%	85.7%
Gaza	255	94.3%	85.3%	82.7%
Inhambane	195	91.6%	87.3%	76.9%
Sofala	227	82.9%	69.3%	55.6%
Manica	200	59.5%	89.6%	51.5%
Tete	242	87.0%	93.5%	81.3%
Child is maternal orphan	18	73.7%	91.3%	67.3%
Child in female headed HH ¹	368	84.8%	83.6%	69.9%
Child in elderly ² headed HH	102	83.8%	88.9%	72.2%
Child in child ³ headed HH	14	100.0%	79.9%	70.7%
Child in HH with ill adult(s)	19	92.3%	86.6%	78.2%

¹ HH = Household

² Elderly headed HH = Age of head of HH is 60y or more and at least one child less than 18y

³ Child headed HH = Age of head of HH household is less than 18y

Table 15 shows the percentage of children 12-23m whose health card attest that they have received the measles vaccine. Estimated vaccine coverage for all children (including those without health card) is also given with the assumption that none of the children without health card have been immunised. This is however a “worst case” scenario since a proportion of the children without health card may have been vaccinated. The true vaccine coverage will thus be somewhere in between the estimated coverage for children with health card and the estimated coverage for all children. How close it is to one or the other estimate depends on the percentage of those without health card that have received the vaccine. *Table 16* gives similar estimates for children 12-59m.

About 84% of children 12-23m sampled possess a health card, with marked variations between the provinces ranging from 59.5% (Manica) to 94.3% (Maputo and Gaza). Among children with a health card, 86.5% have been vaccinated against measles. This percentage is over 85% for all provinces except Sofala (69.3%). The estimated coverage for all children 12-23m is of 71.5%, if all children without health card are counted as not immunised. Differences between boys and girls are small and not statistically significant. Children in female headed and elderly-headed households do not appear to have different coverage than the rest of the population.

Table 16: Coverage of health cards and vaccination for measles in children 12-59m.

Children 12-59m	n	With health card	Percentage vaccinated for measles	
			Children with health card	All children
Overall	4511	73.3%	89.9%	64.7%
Male	2235	73.1%	90.2%	64.3%
Female	2224	73.5%	89.7%	65.0%
Maputo	687	90.0%	93.4%	81.1%
Gaza	849	84.8%	86.7%	73.7%
Inhambane	615	83.4%	92.6%	72.9%
Sofala	743	60.0%	80.0%	47.5%
Manica	781	48.9%	90.6%	43.5%
Tete	836	79.9%	94.1%	74.0%

Children 12-59m show a lower overall card retention estimate (73.3%) than children 12-23m. Card retention decreases gradually as children get older. The overall measles vaccine coverage is also lower (64.7%) if we consider all children without health card as non-vaccinated.

Vitamin A supplementation

Vitamin A as a routine activity was only introduced in Mozambique in March 2002, before this time Mozambique was conducting campaigns for Vitamin A supplementation and other preventive activities but never succeeded to cover the target group twice a year. Vitamin A supplementation is very important as highlighted by the results of the National Vitamin A Deficiency (VAD) survey of December 2001-January 2002, which found that 71.2 % of children were deficient for Vitamin A (with 15.2% with severe deficiency).

Table 17 shows the percentage of children 6-59m that have received vitamin A supplementation at least once during the previous six months, with a column for children with health card and another for all children, considering those without health card as not having received vitamin A.

The overall estimate of vitamin A supplementation coverage in this age group is of 41.4% (all children), with provincial estimates varying from 27.0% (Sofala) to 55.8% (Maputo). Both sexes seem to be given the same opportunity, but the younger age group presents coverage figures 16.2 percentage points higher than the older children.

Table 17: Coverage of health cards and supplementation with Vitamin A during the last six months for children 6-59m by province, sex and selected groups.

Children 6-59m	n	Children with health card	Percentage of children having received Vitamin A	
			Children with health card	All children
Overall	5350	72.8%	62.2%	41.4%
Male	2309		63.7%	41.2%
Female	2342		60.5%	41.6%
Maputo	833	89.2%	65.1%	55.8%
Gaza	976	85.1%	58.0%	47.2%
Inhambane	783	79.7%	49.3%	37.7%
Sofala	881	59.3%	60.9%	27.0%
Manica	906	49.7%	72.8%	33.3%
Tete	971	80.6%	65.4%	50.7%
Age group 06-23m	1663		68.2%	52.7%
Age group 24-59m	2878		58.7%	36.5%
Child is maternal orphan	79		82.9%	35.4%
Child in female headed HH ¹	1308		59.3%	39.9%
Child in elderly ² headed HH	410		51.8%	34.5%
Child in child ³ headed HH	43		39.6%	28.3%
Child in HH with ill adult(s)	69		57.0%	40.9%

¹ HH = Household

² Elderly headed HH = Age of head of HH is 60y or more and at least one child less than 18y

³ Child headed HH = Age of head of HH household is less than 18y

Comparative Analysis

Table 18: Health card and measles immunisation coverage in QUIBB 2000/01 and Vulnerability Assessment (VAC) 2002

Children < 5 years	Have Health Card		Vaccinated against measles*	
	QUIBB	VAC	QUIBB	VAC
Overall	81.0%	84.0%	67.5%	71.5%
Male	82.1%	82.5%	68.5%	70.7%
Female	79.9%	85.3%	66.5%	72.5%
Maputo	96.4%	94.3%	87.7%	85.7%
Gaza	90.0%	94.3%	83.6%	82.7%
Inhambane	89.4%	91.6%	75.0%	76.9%
Sofala	83.3%	82.9%	67.6%	55.6%
Manica	73.7%	59.5%	71.9%	51.5%
Tete	84.2%	87.0%	64.3%	81.3%

* based on all children, not only those with health card

Overall, children in the targeted areas appear to enjoy similar levels of access to and use of immunisation services to children throughout the country and in their respective provinces, as demonstrated by the comparison above between the two data sets. There are some exceptions, however – children in the targeted areas of Manica are less likely to have a health card, and both Manica and Sofala show significantly lower levels of immunisation. Also, given the overall higher vulnerability to malnutrition and illness in the targeted areas demonstrated by this survey, measles immunisation (as well as Vitamin A administration) assumes even greater importance for these areas. The QUIBB did not collect data on Vitamin A, as routine vitamin A supplementation only began in 2002.

CARE PRACTICES

Key findings

This section covers a number of practices that have the potential to prevent or contribute to child illness and malnutrition.

Breastfeeding and Introduction to Complementary Foods

Table 19 below shows the percentage of children 06-23m still being breastfed and those who were being given complementary food by the age of six months. The overall rate of breastfeeding is of 89.4% in the targeted areas, all provinces being around 90% except Manica which is at 84.0%. There does not appear to be any significant difference in the rate of breastfeeding between boys and girls. As expected, the rate of breastfeeding decreases gradually with age, passing from 94.8% in the 6-11m group to 80.6% in the 18-23m group, with a rather sharp decrease in the second half of the second year of life.

On the other hand, 87.7% of children in the targeted areas are being given complementary food by the age of six months. All provinces are at around 90% for this indicator except Inhambane (81.7%) and Maputo (71.2%) where the introduction of complementary food seems to happen later than in the other areas. It is notable that girls have a lower rate than boys. Although the difference is relatively small, it is statistically significant and suggests that caretakers are not indifferent to the sex of the child when deciding when to introduce complementary food. The status of the head of the household does not appear to have a significant impact on two above mentioned indicators.

Table 19: Breastfeeding and introduction of complementary foods

Children 6-23m	n	Still breastfeeding	Receiving complementary food by six months of age
Overall	1899	89.4%	87.7%
Male	915	89.2%	89.5%
Female	963	90.0%	85.8%
Maputo	290	91.0%	71.2%
Gaza	343	90.7%	90.3%
Inhambane	304	89.3%	81.7%
Sofala	301	90.0%	89.4%
Manica	299	84.0%	91.7%
Tete	362	91.3%	92.3%
Age group 06-11m	650	94.8%	
Age group 12-17m	737	91.0%	
Age group 18-23m	512	80.6%	
Child in female headed HH ¹	532	88.5%	87.8%
Child in elderly ² headed HH	152	86.1%	88.7%
Child in child ³ headed HH	25	97.8%	84.5%
Child in HH with ill adult(s)	25	89.9%	80.3%

¹ HH = Household

² Elderly headed HH = Age of head of HH is 60y or more and at least one child less than 18y

³ Child headed HH = Age of head of HH household is less than 18y

Feeding Frequency

Young children need to eat more frequently than adults in order to obtain adequate nutrition; a minimum of four times per day (including meals and snacks) is normally considered to be required for healthy growth. *Table 20* focuses on feeding frequency for the same age group and on factors that may be related to the number of meals a child is given per day not counting breastfeeding sessions. **Only 32.0% children in the age group 6-23m are fed three or more meals and snacks a day, and a mere 2.3% receive food a recommended four times a day or more. Nearly one quarter are not given more than one meal a day.** There is ample variation between the provinces. In Maputo, over 50% of children are fed at least three meals a day, while in Sofala, this is less than 20%. On the other hand, the proportion of children with three or more meals per day is shown to increase with age, corresponding to the simultaneous decrease in the proportion of children being breastfed as shown in the previous table.

The figures also indicate that an increase in time needed to fetch water is accompanied by a decrease in the number of daily meals given to the young children. The difference is already clear when one hour or more is spent for one trip to the water source and back, as compared to less than one hour.

Table 20: Feeding frequency for children 6-23m (on the day before the survey) by province and selected groups.

Children 06-23m	n	Fed 0 or 1 x per day	Fed 2 x per day	Fed 3 x per day	Fed 4 x or more per day	
Overall	1750	24.5%	43.4%	29.7%	2.3%	
Male	841	21.0%	43.6%	33.2%	2.3%	
Female	890	28.2%	43.4%	26.1%	2.4%	
Maputo	248	15.5%	33.8%	42.2%	8.5%	
Gaza	332	34.8%	43.4%	20.4%	1.5%	
Inhambane	253	19.7%	49.4%	26.4%	4.6%	
Sofala	279	33.6%	48.1%	17.8%	0.5%	
Manica	291	30.5%	42.3%	25.9%	1.4%	
Tete	347	17.9%	40.6%	40.6%	0.9%	
Child in female headed HH ¹	491	25.1%	40.7%	32.3%	1.9%	
Child in elderly ² headed HH	139	19.0%	47.8%	30.2%	3.0%	
Child in child ³ headed HH	23	26.0%	52.3%	19.3%	2.4%	
Child in HH with ill adult(s)	20	22.5%	34.2%	27.0%	16.4%	
Child in HH where time to water source and back is:	< 1hr	894	20.1%	40.2%	36.8%	2.9%
	1-2hr	613	28.9%	45.4%	23.8%	2.0%
	≥ 3hr	214	24.7%	50.4%	16.0%	0.9%

¹ HH = Household

² Elderly headed HH = Age of head of HH is 60y or more and at least one child less than 18y

³ Child headed HH = Age of head of HH household is less than 18y

Hand-washing

Good hand-washing practices are important for maintaining good health of all family members, in particular for reducing prevalence of diarrhoeal and other hygiene-related diseases.

Table 21: Hand-washing practices

Households	n	Soap or Ashes	Only water
Overall	5327	43.3%	55.9%
Maputo	961	74.0%	25.8%
Gaza	663	42.1%	55.7%
Inhambane	1072	60.4%	37.8%
Sofala	997	31.9%	67.2%
Manica	645	35.4%	64.0%
Tete	989	32.5%	66.6%
Female headed HH ¹	1823	41.3%	57.8%
Elderly ² headed HH	570	45.5%	54.0%
Child ³ headed HH	39	56.5%	40.7%
HH with ill adult(s)	84	50.6	58.5%

¹ HH = Household

² Elderly headed HH = Age of head of HH is 60y or more and at least one child less than 18y

³ Child headed HH = Age of head of HH household is less than 18y

Table 21 shows that well over half of the families surveyed use only water for hand washing. Maputo and Inhambane were the only provinces where more than half of the surveyed households used water and soap/ ash: 73.6% and 57.7%, respectively.

Table 22: Diarrhoea and conjunctivitis prevalence and hand-washing practices

Children 6-59m	Prevalence of conjunctivitis	Period prevalence of diarrhoea
Overall	16.9%	31.2%
Child in HH hand-washing with soap or ashes	13.6%	28.0%
Child in HH hand-washing with only water Or something else than soap or ashes	19.6%	33.8%

Table 22 shows a significantly lower prevalence of diarrhoea and conjunctivitis among children 6-59 months who wash their hands with water and soap/ash, compared to those using only water. This is a particularly important finding in light of the high HIV/AIDS prevalence rate, as good hygiene practices can help to reduce the incidence rates of opportunistic diseases among PLWHA.

No comparative analysis can be made for Care indicators with the QUIBB, as the same indicators were not used.

WATER AND HYGIENE

Key Findings

The survey measured a range of indicators related to water access and use. The survey data indicates that 37.3% of households in the targeted areas have access to safe water⁷, the lowest being Maputo at 34% and the highest Manica at 48.9% (See table 27).

Table 23: Mean time to arrive at water source and to collect water

Households	n	Mean time to reach water source (min.)	Mean total time to collect water (min.)
Overall	5298	38min.	79min.
Maputo	980	27min.	52min.
Gaza	662	32min.	85min.
Inhambane	1085	30min.	65min.
Sofala	1012	44min.	92min.
Manica	649	77min.	149min.
Tete	1010	23min.	51min.
Changed water source (last y)	617	38min.	90min.
Water source is safe	1991	27min.	62min.
Water source is unsafe	3356	44min.	89min.
Female headed HH ¹	1843	39min.	80min.
Elderly ² headed HH	573	33min.	74min.
Child ³ headed HH	39	44min.	83min.
HH with ill adult(s)	83	32min.	81min.

¹ HH = Household

² Elderly headed HH = Age of head of HH is 60y or more and at least one child less than 18y

³ Child headed HH = Age of head of HH household is less than 18y

Table 23 shows the average time spent by households to reach their water sources as well as the total time spent to collect water, including queuing or waiting time. Large variations are evident between provinces, with households in Manica, Sofala and Gaza spending relatively more time in water collection. Based on time difference between the one way trip to the water source and the round trip, people in Gaza have the longest queuing time (21 minutes difference). It is also noteworthy that families using an unsafe water source spend more time in accessing water than those who use a safe source.

The vulnerability of the surveyed areas is also highlighted by the finding that 7.4% of households overall are now taking more time collecting water, particularly in Manica where over 15% of households are now further away from their water source. Households who changed their water source since last year are the most likely to spend more time accessing water (27.5%). Table 24 above summarises these results.

⁷ Water is considered safe when it is collected from a network (pipes), a borehole or a protected well.

Table 24: Households taking more time to collect water since last year

Households	n	Percentage of HH taking more time to collect water since last year
Overall	5323	7.4%
Maputo	967	3.6%
Gaza	656	7.8%
Inhambane	1043	6.2%
Sofala	1011	3.9%
Manica	644	15.5%
Tete	1002	7.3%
Change in water source since last year	582	27.5%
Female headed HH ¹	1821	7.5%
Elderly ² headed HH	568	6.9%
Child ³ headed HH	39	11.2%
HH with ill adult(s)	81	0.0%

¹ HH = Household

² Elderly headed HH = Age of head of HH is 60y or more and at least one child less than 18y

³ Child headed HH = Age of head of HH household is less than 18y

Reduced water consumption and drying of water sources are indicative of water shortages and vulnerability to drought. As presented in Table 25, 12.5% of the households are consuming less water now than last year at the same period. A significantly higher proportion (23.3%) of households who changed water source since last year are consuming less water.

Table 25: Households consuming less water than last year at the same period

Households	n	Percentage of HH consuming less water than last year	
Overall	5328	12.5%	
Maputo	945	5.0%	
Gaza	663	16.7%	
Inhambane	1084	13.7%	
Sofala	994	8.4%	
Manica	649	18.1%	
Tete	993	12.9%	
Changed water source (since last year)	Overall	610	23.3%
	Because source dried up	194	20.8%
Female headed HH ¹	1827	13.5%	
Elderly ² headed HH	572	13.0%	
Child ³ headed HH	38	17.3%	
HH with ill adult(s)	84	13.2%	

¹ HH = Household

² Elderly headed HH = Age of head of HH is 60y or more and at least one child less than 18y

³ Child headed HH = Age of head of HH household is less than 18y

Overall, 11.3% of the households surveyed are using a different water source than last year during the same period. Table 26 summarises the reasons why these families changed their water source. Notably, over one third changed because their previous water sources had dried up. The highest percentages were recorded in Gaza and Inhambane, 54.0% and 40.2%, respectively. A significant proportion (22.3%) changed sources due to a broken pump. This problem was greatest in Manica, Gaza and Tete, compounding the difficulties of dry and distant sources already noted in this survey, especially in the first two of these provinces.

Table 26: Changes in water source by families with access to safe water

Households	n	Broken pump	Source dried up	Other
Overall	615	22.3%	31.5%	46.2%
Maputo	67	15.9%	17.3%	66.8%
Gaza	117	23.1%	54.0%	22.9%
Inhambane	145	6.1%	40.2%	53.8%
Sofala	87	17.3%	18.1%	64.7%
Manica	84	37.7%	32.8%	29.5%
Tete	115	29.1%	32.8%	38.1%

In conclusion, people in the target areas are now further away from their usual water source (7.4%), consuming less water (12.5%) and using a different source (11.3%) than last year during the same period. This situation may contribute to further increases in hygiene related illnesses and will increase the likelihood of opportunistic infections among PLWHA.

Comparative Analysis

Table 27: Access of households to water: QUIBB 2000/01 & Vulnerability Survey (VAC) 2002

Households	N	VAC	QUIBB
Overall	5405	37.3%	37.1
Maputo	970	34.0%	50.6
Gaza	666	36.4%	72.4
Inhambane	1108	35.8%	34.3
Sofala	1006	34.9%	47.1
Manica	645	48.9%	48.0
Tete	1010	34.6%	39.6

On balance, access to a safe water source in the sampled areas was similar to the national average stated in the QUIBB. However, province by province comparisons reveal that some of the targeted areas included in the present survey are particularly worse off than their province as a whole, Gaza and Maputo in particular.

Table 28: Time to access water source

Households	VAC	QUIBB	VAC	QUIBB
	<15 min.	<15 min.	60+ min.	60+ min.
Overall	35.0%	66.4%	25.0%	4.2%
Maputo	56.5%	85.2%	10.0%	1.0%
Gaza	39.5%	56.3%	24.1%	7.0%
Inhambane	40.9%	51.8%	21.9%	8.8%
Sofala	31.6%	76.5%	34.5%	4.3%
Manica	9.5%	77.3%	55.2%	4.1%
Tete	38.1%	57.2%	10.7%	8.4%
Safe source	46.4%		15.0%	
Unsafe source	28.4%		30.8%	

The level of disadvantage of the targeted areas is particularly clear when comparing mean time to reach the water source. As Table 28 shows, only 35% of the households surveyed are able to reach their water source in 15 minutes, compared to 66.4% in the national QUIBB

sample. Moreover, 25% of the households spend over 60 minutes to reach their water source, a hardship experienced by only 4.2% overall in the QUIBB. **Spending such a significant amount of time in water collection increases household vulnerability, as the resources of time and energy invested must be diverted from other activities, including care for younger children, and education of older children, especially girls.**

EDUCATION

Key Findings

The impact of the current humanitarian crisis on the education sector was analysed in terms of gross enrolment rate (GER)⁸ and net enrolment rate (NER)⁹. The overall GER and NER were 106.9 % and 67.3% respectively. A statistically significant difference was recorded in NER between boys (69.0%) and girls (65.6%). This adds to the body of literature that suggests that girls are persistently underrepresented in school. In addition, dropout rates over the last two months were measured to examine how the drought may be affecting school attendance. The overall dropout rate was 4.3%, Maputo province recording the highest rate of 9.9%. As for data on vulnerable children, such as maternal orphans and children in child headed households, the small sample sizes prevented useful interpretation. *Table 29* below presents provincial breakdowns for GER, NER, and dropout rate.

Table 29: Enrolment in school and drop-out rates

Children 06-12 (18) years ¹⁰		n	QUIBB GER	QUIBB NER	VAC ≈ GER ¹¹	VAC NER	Drop-out (% of enrolled)
Overall	M+F	5315	90.7	56.5	106.9%	67.3%	4.3%
	M	2590	100.3	59.0	108.8%	69.0%	4.9%
	F	2671	81.2	53.9	97.4%	65.6%	3.5%
Maputo	M+F	903	129.5	81.5	141.5%	84.6%	9.9%
Gaza	M+F	754	120.1	73.5	96.0%	63.5%	2.1%
Inhambane	M+F	1021	109.5	66.9	113.9%	71.8%	3.8%
Sofala	M+F	876	81.1	49.7	85.2%	58.6%	4.0%
Manica	M+F	720	93.9	53.2	104.4%	72.1%	3.4%
Tete	M+F	1041	76.9	49.6	97.7%	62.9%	4.3%
Child is maternal orphan	M+F	221			126.3%	72.2%	1.5%
Child in female headed HH	M+F	1689			108.0%	70.9%	3.3%
Child in elderly headed HH	M+F	587			118.3%	70.2%	5.3%
Child in child headed HH	M+F	38			81.7%	51.9%	3.4%
Child in HH with ill adult(s)	M+F	60			114.6%	64.4%	14.2%

¹ HH = Household

² Elderly headed HH = Age of head of HH is 60y or more and at least one child less than 18y

³ Child headed HH = Age of head of HH household is less than 18y

The results do not suggest widespread impact on the education sector thus far, however the situation should continue to be monitored through the new school year. As the comparative analysis will demonstrate below, however, some results in Maputo and Gaza provinces warrant further investigation.

⁸ Gross enrolment is the total number of children enrolled in school expressed as a percentage of the eligible school age population. With over- and under-age children and those repeating grades, a country's gross enrolment figures can be more than 100%.

⁹ The percentage of children of primary school age enrolled in primary education.

¹⁰ All indicators for children 6-12 years except GER whose numerator is children 6-18y at school.

¹¹ GER = Gross Enrolment Rate; this is an approximation since numerator used here is all children 6-18y at school, including a few at secondary level.

Comparative Analysis

From *Table 29* we can compare the GER and NER of this survey and those of the QUIBB conducted in 2000-2001. The data do not suggest any deterioration in either enrolment figures. In fact the sampled areas of most provinces seem to enjoy higher enrolment figures than the provincial norm. One notable exception is Gaza where the sampled localities have significantly lower enrolment rates compared to the provincial average.

The two month dropout rates recorded in this survey are relatively lower than the year-round rates recorded by Ministry of Education (MINED). This is probably due to the fact that most dropouts occur at the beginning of the year and students who have survived most of the school year are unlikely to drop out in the later months. Yet the high dropout rate in Maputo is puzzling. A rough comparison with the MINED data shows that the rate is about 5% points higher.

Although the exact causes for high non-enrolment in Gaza and dropout rate in Maputo could not be determined from the survey¹², it seems to show that pockets of vulnerability exist in otherwise better off provinces. Hence these findings warrant further investigation and targeted action.

¹² The question asking for reasons for dropping out of school suffered from low response rate. In addition most respondents chose "other reasons" among the predetermined answers, which suggests our knowledge of causes for dropout remains insufficient.

SPECIAL PROTECTION

Key findings

Most data presented in the survey were desegregated for vulnerable groups, such as maternal orphans, child-, female-, and elderly-headed households, as well as households with an ill adult. The survey found few significant differences in the level of impact of the current humanitarian crisis between vulnerable and non-vulnerable households. Nevertheless, although the limited sample size precludes any statistically valid conclusions, maternal orphans seem to be more prone to malnutrition and conjunctivitis and have less access to measles immunisation and Vitamin A supplements (Refer to Tables 6, 9, 13, 15 & 17). It is interesting to note that girls seem to receive complementary foods later than boys (Refer to Table 19), suggesting that caretakers are not indifferent to the sex of the child when deciding when to introduce complementary food.

The current survey also assessed whether children are being affected by harmful coping mechanisms that come into function in times of crises. Child labour and early marriage are two common practices that are believed to increase when households face difficult times. In addition, although the sample size is relatively small, the children in households with chronically sick adults do appear to have higher school dropout rates.

Table 30: Households who had children leave in the last two years in search of work

Households	n	Percentage of HH who had children leave in search of work (last 2y)
Overall	5415	0.9%
Maputo	984	1.2%
Gaza	668	0.9%
Inhambane	1104	1.2%
Sofala	1006	0.1%
Manica	643	0.6%
Tete	1010	1.3%
Male child left home	5415	0.8%
Female child left home	5415	0.2%
Maternal orphan left home	5415	0.1%
Female headed HH ¹	1854	0.8%
Elderly ² headed HH	582	1.3%
Child ³ headed HH	39	0.0%
HH with ill adult(s)	86	1.3%

¹ HH = Household

² Elderly headed HH = Age of head of HH is 60y or more and at least one child less than 18y

³ Child headed HH = Age of head of HH household is less than 18y

As indicated in Table 30, On average 0.9% of the households confirmed that a child had left in search of work in the past two years, the lowest being in Sofala (0.1%) and the highest is Tete (1.3%). The figure in Tete is quite sizeable when translated into absolute numbers: 667 households. The survey excluded children who work at home and on household farms.

The proportion of households confirming that a child had left due to marriage in the past two years was slightly higher at 2.4%, the highest being in Manica at 4.1% and the lowest in Sofala at 0.4%. The phenomenon seems to be most frequent in elderly-headed households (3.9%) compared to other types of households and mainly affected female children. Table 31 summarises the results.

Table 31: Households where a child left due to marriage in the last two years

Households	n	Percentage of HH where a child left due to marriage (last 2y)
Overall	5415	2.4%
Maputo	984	1.1%
Gaza	668	3.4%
Inhambane	1104	1.3%
Sofala	1006	0.4%
Manica	643	4.1%
Tete	1010	3.7%
Male child married early and left home	5415	0.5%
Female child married early and left home	5415	2.1%
Maternal orphan married early and left home	5415	0.2%
Female headed HH ¹	1854	2.2%
Elderly ² headed HH	582	3.9%
Child ³ headed HH	39	0.0%
HH with ill adult(s)	86	2.6%

¹ HH = Household

² Elderly headed HH = Age of head of HH is 60y or more and at least one child less than 18y

³ Child headed HH = Age of head of HH household is less than 18y

The findings of the current assessment have not categorically shown that vulnerable groups such as maternal orphans and child headed households are being affected by the current humanitarian crisis more than other groups. However there are some signs that maternal orphans may be experiencing higher levels of malnutrition and drought-related diseases. Moreover, harmful coping strategies to children such as child labour and early marriage, though not alarmingly high, are affecting a sizeable number of children in some provinces.

No comparative analysis was performed on these indicators, as no similar measurements were taken in the QUIBB.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The results of this survey as described in the preceding pages, together with the comparisons made with the relatively recent national data from the QUIBB (2000/01), suggest the following conclusions:

1. The targeted areas represented by this survey show clear signs of vulnerability, both in terms of expected norms and standards and in comparison to key indicators included in the QUIBB. This vulnerability is particularly pronounced with respect to chronic malnutrition, episodes of illness among young children, and access to safe water.
2. The elevated levels of wasting in the target areas compared to earlier QUIBB data suggest that, at minimum, the areas covered by the survey are in worse condition now than the respective provinces as a whole 18 –24 months ago. While high wasting rates are never acceptable, the deviation from the provincial norms are particularly notable in Gaza and Maputo, suggesting current pockets of high vulnerability in these otherwise relatively better off provinces. Manica and Tete also show unacceptably high rates, though these are less at variance with the norm for these provinces.
3. The consistently high rates of chronic malnutrition and high morbidity, including endemic malaria, found in the target areas constitute a real threat to the well-being of these communities, especially given the high HIV prevalence estimates prevailing in these areas, and documented food deficits. The simple practice of hand washing with soap or ash could help reduce the risk of hygiene-related illnesses, but is currently practised by less than half of the target population. Diarrhoea rates are highest among those with poor hand-washing practices, and are also strongly associated with acute malnutrition, highlighting the inter-relationships between all these factors.
4. In the face of such threats, access to and use of preventative health services is very important. Nevertheless, the survey shows relatively low rates of measles immunisation and Vitamin A administration. This is especially concerning, given the recent evidence from a Ministry of Health survey regarding the high prevalence of Vitamin A deficiency throughout the country.
5. Children are generally at greatest risk of becoming malnourished as they are being weaned, between 6-23 months, and need frequent feeding during this time. In the surveyed areas, however, only 32.0% children in the age group 6-23m are fed three or more meals and snacks a day, and a mere 2.3% receive food a recommended four times a day or more. Nearly one quarter are not given more than one meal a day. One reason for this appears to be lack of time; the survey results demonstrate that longer it takes to collect water each day, the fewer times young children are fed.
6. The surveyed areas are remarkably close to the QUIBB sample with regard to access to safe water (except in Gaza), but the similarity in water access ends there. Far fewer of these households are able to access water sources close by, and one quarter must walk for almost one hour to reach a water source, quite often an unsafe one. Many families have had to change their water source in the last year, and an even higher proportion are consuming less water than previously. While the problem is often difficult to rectify, with sources drying up being the main culprit, a large proportion of households are in a more

difficult position due to the rather more fixable problem of a broken hand-pump. Spending such a significantly increased amount of time in water collection increases household vulnerability, as the resources of time and energy invested must be diverted from other activities, including care for younger children, and education of older children, especially girls.

7. Small sample sizes prevent us from drawing definitive conclusions about the status of children and households assumed to be particularly vulnerable – these include maternal orphans, child- and elderly-headed households, and those with a chronically ill adult. However, the demographic data demonstrates that a not insignificant number of children are living in these circumstances. The data showing a higher proportion of very young orphans than identified by the QUIBB suggests these problems may be growing in the targeted areas. With many of the data values suggesting greater risks for these children, and the trends of increasing HIV infection and continued drought conditions documented elsewhere, these groups continue to warrant particular attention and concern.
8. With a few exceptions, there is little evidence yet that families are coping with these crises by removing children from school or otherwise compromising their futures through child labour, trafficking or early marriage. However, school dropout rates are a perennial problem in Mozambique, and the survey does point to some instances of children leaving home for work and early marriage. Monitoring and preventing such harmful coping strategies thus seems warranted.

Recommendations:

In light of these conclusions, a few basic recommendations for action can be made:

- **Nutrition:** Given the high levels of global acute malnutrition, supplementary feeding programmes targeting children under five years of age and pregnant and lactating women in the vulnerable areas should be initiated. This activity should be linked to de-worming in children < 5 years of age and Vitamin A supplementation, participatory training on improved care practices (feeding frequency, food density, active feeding of the sick child, ORT) and good hygiene practices. Further support needs to be provided for the active detection and treatment of children with severe malnutrition, and for on-going nutritional and epidemiological data collection and analysis at sub-national levels. In addition, given the high HIV prevalence rates, support to ensure that PLWHAs are linked to the food aid programmes should be provided, along with support for the provision of nutrition counseling for PLWHAs.
- **Health Services:** Advocacy at national level for a national measles campaign should continue. Access to basic health services in vulnerable areas should be strengthened.
- **HIV/AIDS Prevention:** Extension of HIV/AIDS prevention activities including access to free STD detection and treatment with a focus on young people.
- **Support for PLWHA:** Extension of Home based care services for PLWHAs in affected areas wherever feasible, including the above-mentioned counseling on nutrition.

- **Hygiene education:** Intensify participatory communication campaigns to promote hygienic hand washing practices using water and soap in order to reduce prevalence of diarrhoeal and opportunistic diseases.
- **Water systems:** Accelerate repair of broken handpumps in vulnerable areas; strengthen community-based operation and maintenance of safe water sources and for repair of broken hand pumps. Consider establishment of strategic water sources in primary schools and health centres in communities and in areas where households spend more time collecting water and where the water sources have dried up.
- **Education:** While the results of the assessment do not show large numbers of children dropping out of school at this time, it is recommended that preventive actions continue. These include:
 - Continuation the existing school feeding programmes
 - Provision teaching and learning materials
 - Provision of adequate water and sanitation facilities to primary schools in the most affected areas

In addition, as highlighted in the previous section existing school attendance monitoring system should expand to include focus group discussions with parents and children on the reasons for non-enrolment and dropout.

- **Special Protection:** Support should be provided for the development of effective monitoring mechanisms at district and community level so that continuous feedback can be obtained on the situation of vulnerable children living in the affected areas. Other actions to be considered include:
 - support to line ministries to address the issues of child labour and child marriage in the affected areas
 - in-depth, qualitative research on orphans and vulnerable children to obtain a more comprehensive understanding of their situation
 - Strengthen laws to ensure special protection to orphans, child-headed households and children made vulnerable by HIV/AIDS, increase awareness of these laws among communities, and improve enforcement mechanisms