

# CHAMBER OF MILLING

## THE IMPACT OF AIDS ON MAIZE MEAL AND WHEAT FLOUR SALES IN SOUTH AFRICA

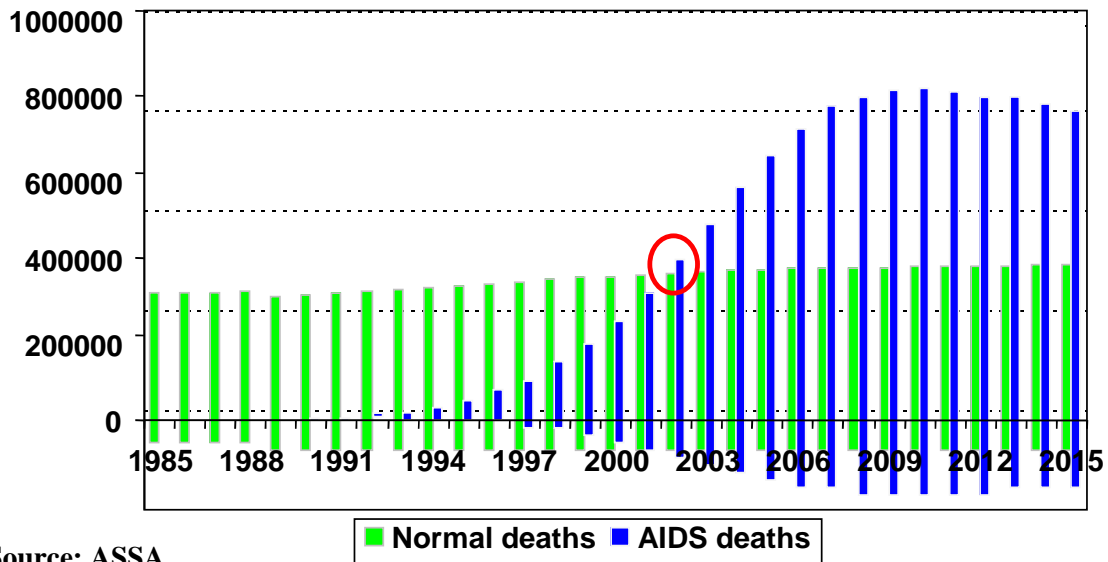
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Executive Director: Chamber of Milling

The National Chamber of Milling commissioned the Bureau of Economic Research (BER) at the University of Stellenbosch to undertake an investigation into the impact of aids on the consumption of maize meal and wheat flour in South Africa. The aim was to evaluate the current over capacity in view of the estimated consumption patterns of the staple foods in South Africa. The study focuses on a 5 and 10 year projection for this purpose and also evaluated the situation on a national and regional basis.

The number of South Africans infected by AIDS, as published by the Department of Health, is currently 4.7 million (11.6%) with 1 700 new infections every day. Measured by the antenatal prevalence, the number of infected people in South Africa is 24.5%. This was also confirmed by the International Monetary Fund World Economic Outlook Report of September 2000.

The Actuarial Society of South Africa (ASSA), estimated the number of deaths caused by of AIDS, as illustrated in Graph 1:

**Graph 1:**



According to the projection in Graph 1, the number of deaths, caused by AIDS, will peak at about 800 000 per annum in the years 2007 to 2013. These deaths will have a substantial influence on the population growth in South Africa. Surveys undertaken by the Department of Health at the various clinics in the provinces indicated that the percentage of pregnant women which were recorded HIV positive is as follows:

KwaZulu Natal	36.2%
Mpumalanga	29.7%
Gauteng	29.4%
Free State	27.9%
North West	22.9%
Eastern Cape	20.2%
Northern Province	13.2%
Northern Cape	11.2%
Western Cape	8.7%

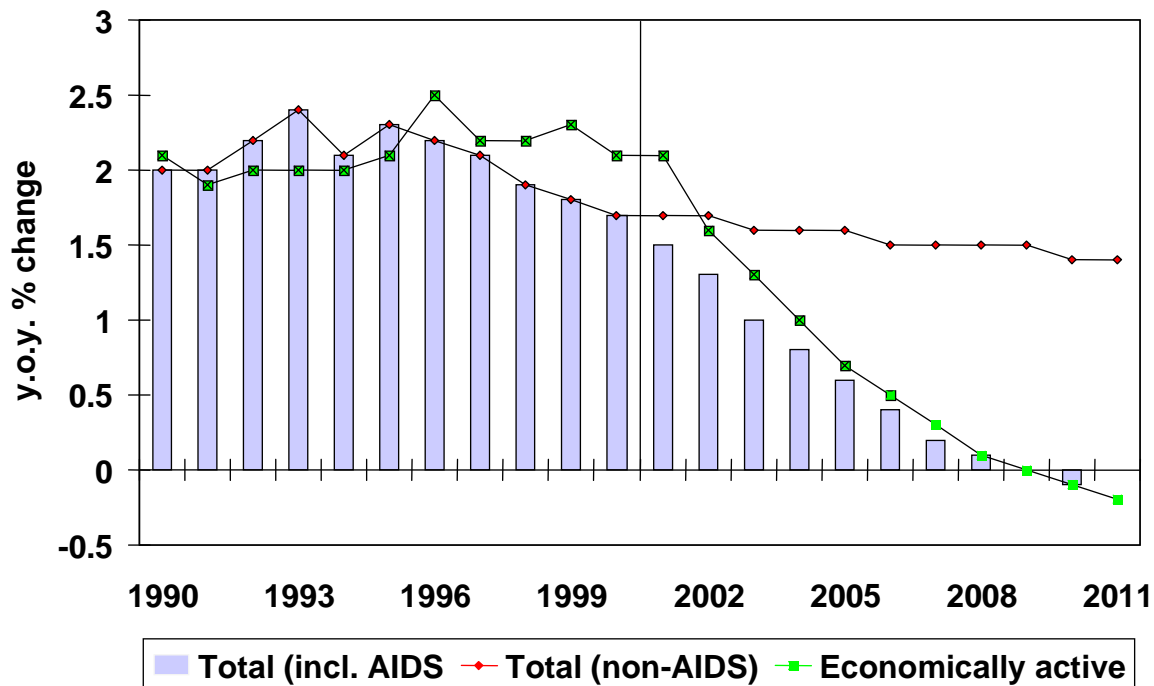
The weighted average amongst the various provinces in South Africa is 24.5%.

The impact on the labour force of South Africa has been done by various institutions and the data released by Sanlam/Wefa SA indicated that the HIV prevalence estimated for 2000 was as follows:

High skills	8.0%
Medium skills	12.5%
Low skills	21.0%

Following these statistics, economists forecast that the impact on the production ability of South Africa will not be affected as severely as the initial glance at the high infection rate seems to indicate. The United States Census Bureau predicts that life expectancy in countries like Botswana, Zimbabwe, Swaziland, South Africa and Zambia will fall from about 60 years to around 30 years of age in the year 2010. It will also create a generation of orphans which could reach up to 10% of the population in most of these countries.

The population growth in South Africa in the nineties was between 2 and 2.5% per annum. The projection by the BER on the population growth, is shown in Graph 2.

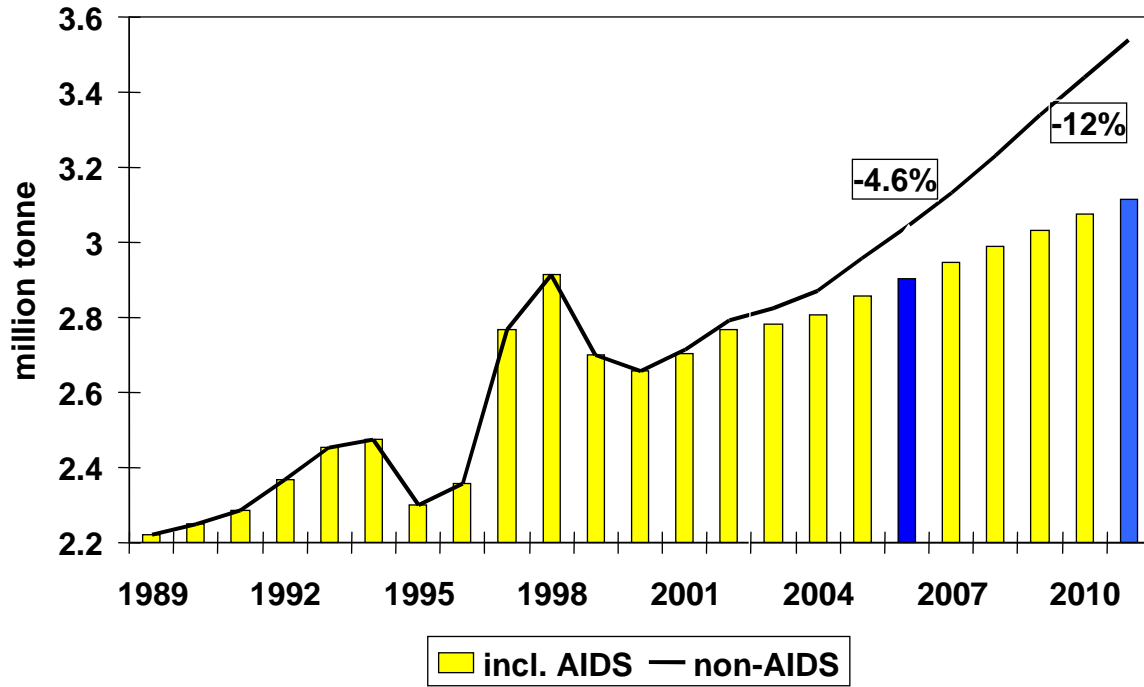
**Graph 2: South African population growth**

Factors impacting on households that were considered in the study, were the shift in spending in favour of health care and funeral services, the influence on per capita income, the increased extended family burden and the death of adult bread winners.

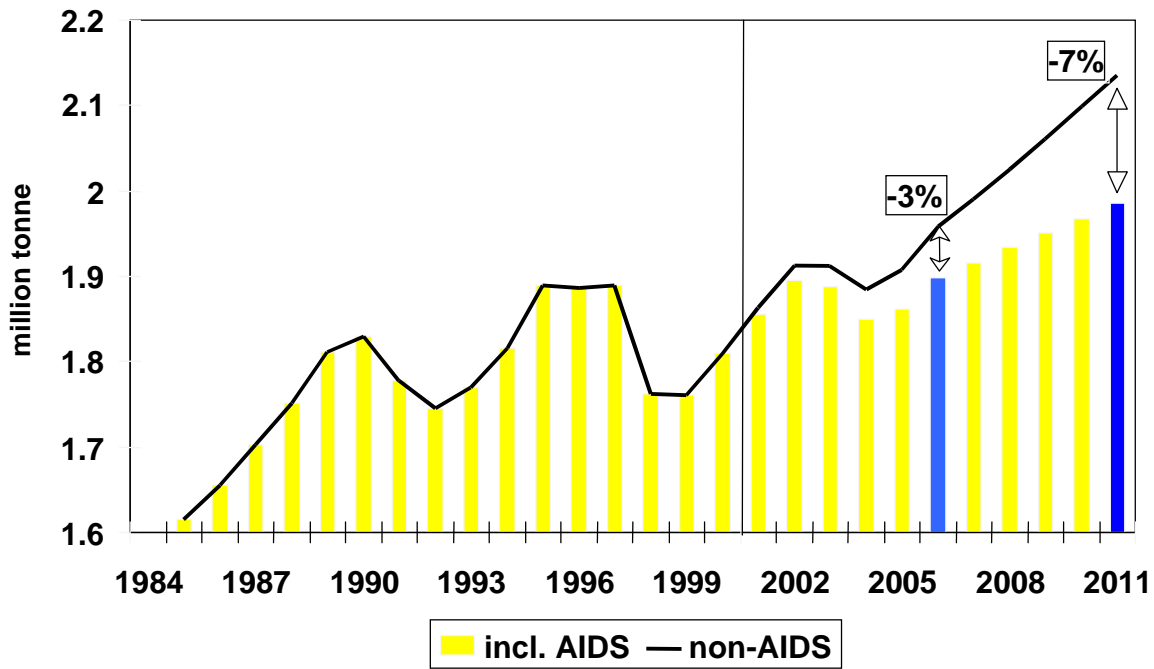
Given the implications on a macro basis for the country and Africa as a whole and evaluating the impact on households, the BER analysed the drivers of the sales of maize meal and wheat flour. The BER calculated that for every 1% decrease in disposable income and employment, the **maize meal** sales will decrease by 0.8% and for every 1% decrease in population growth, the **maize meal** sales will decrease by 1,3%. This will have a severe impact on the tonnages of maize processed in the country for maize meal consumption. The BER forecasted that for every 1% decrease in disposable income and employment the **wheat flour** sales will decrease by 0.97% and for every 1% decrease in population growth, the **wheat flour** sales will decrease by 0.3%. It would appear therefore that maize meal sales are much more population growth sensitive than wheat flour sales. But wheat flour sales are much more sensitive to disposable income and employment rates in South Africa.

The BER used the Chamber of Milling's data to forecast the sales given the impact of AIDS on the population growth, disposable income and employment. These forecasts are illustrated in Graphs 3 and 4.

**Graph 3: Maize meal sales volumes**



**Graph 4: Wheat flour sales volumes**



These graphs illustrated that in the year 2006 the impact of AIDS would reduce the projected sales of maize meal by 143 000 tons per annum or 180 000 tons of maize. In the year 2011 the sales will be 429 000 tons less (536 000 of maize) than what it would have been without the AIDS disease.

Similarly the industry would utilize 66 000 tons less wheat by the year 2006 and 186 000 tons less by the year 2011 than it would have been under normal circumstances. These quantities equates to a 12% capacity under utilization in maize and 6% in wheat. This under utilization of capacity will definitely have an increase in the fixed cost per unit of the industry and therefore will also impact consumer prices negatively. 75% of all maize meal sales takes place in KwaZulu Natal, Gauteng, Mpumalanga and the Northern Province. In analysing the population growth, disposable income and employment per province, it appears that the maize meal sales in KwaZulu Natal will actually start decreasing by the year 2004 because of the impact of AIDS. Similarly to a lesser extent in Gauteng and Mpumalanga. The Northern Province appears to be less affected by AIDS comparing the projected sales.

The wheat flour sales per province indicated a lesser effect on the industry evaluating the four major provinces which covers 75% of all current sales. KwaZulu Natal and Gauteng shows a negative impact and a slower growth than one would have normally seen without AIDS. Whereas the Eastern and Western Cape shows a positive trend with the disposable income and employment having positive effects on the sales in those particular provinces.

In conclusion the study indicates to the milling industry to reconsider its medium and long term investment decisions and to evaluate the current surplus capacity. Data released at the time of the Chamber of Milling's annual general meeting in March 2001 indicated that the profit on turnover in the maize milling industry, excluding tax and interest, is 0.64% and 8.5% for the wheat milling industry. Following the results from this study it is clear that the milling industry should thoroughly reconsider their capacity utilization with a view to either rationalize or increase consumption via exports or new innovations.

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