Prediction of malnutrition prevalence

Choosing KDHS 2014 as the baseline and the 2025 WHA stunting target as the end point, the analysis expected an AARR of 6.5 per cent. As a result, stunting reduction efforts would be quadruple (four times) of what they are currently.

Conclusions and Recommendations

Kenya has managed to administer ten nationwide surveys that collected nutritional data over the last three decades. There were variations in methods and target population when comparing the surveys. Unfortunately, there was a scarcity of evidence that could be used to develop trends at the county level from these surveys. Nationally, anthropometric indicators for children under the age of five have seen a downward trend. The stunting rate is forecast to be 23.8 per cent by 2025, while the WHA goal is 12.6 per cent, with a further reduction to 22.0 per cent by 2030. As a result, existing efforts to end all forms of malnutrition in children under 5 years of age will fall short of meeting the 2025 and 2030 targets.

Stunting reduction rates in rural and urban areas were 1.3 and 1.2 per cent, respectively, with each improving marginally. Underweight in rural areas has increased slightly at a 2.1 per cent annual rate, while overweight in urban areas has declined significantly.

As a result, the report proposes that:

1. Future nutrition related surveys' methodologies should be harmonized as a best practice and for ease of comparison.

2. If Kenya is to meet global and national malnutrition targets, investment in the nutrition sector should be increased.

3. Since nutrition is a devolved function, future surveys should be structured to collect data for reporting indicators at county levels.

4. Overweight is more prevalent in urban areas than in rural areas, necessitating further research and enhancement of interventions in this area.

5. It is important to promote the growth of nutritional understanding in communities.

GOVERNMENT OF KENYA

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An Analysis on Nutritional Anthropometric Trends in Kenya

The stunting rates differed by 3.7 per centage points between the KDHS and KIHBS surveys in 2014 and 2015/16, with the KIHBS showing a higher rate of 29.9 per cent and the KDHS reporting 26.2 per cent.

This begged the question, "Why is there such a disparity between two consecutive years, and what about the other years?"

The following differences were observed: i) growth reference standards in calculation of the indices; ii) sample target populations; and iii) data collection duration.

What if the survey metrics were calculated using same growth reference standards?

The application of the WHO 2006 growth reference standards resulted in new estimates, that prominently depict significant improvement in malnutrition status over the published indicators. The analysis calculated an overweight indicator for previously unreported years. These recalculations did not consider the differences in target population.

Recalculated National Trends of Malnutrition Indicators (WHO2006)
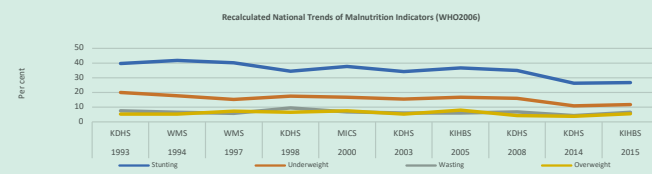
Stunting prevalence declined over three decades, from 41.8 per cent in the 1994 WMS to 26.3 per cent in the KDHS 2014. This increased marginally to 26.7 per cent in the 2015 KIHBS.

Similarly, the rate of underweight had improved to 10 per cent from a high of 20 per cent, while wasting and overweight had been oscillating about 5 per cent.

How did the sample target population and data collection period differ?

With the exception of the MICS, the KDHS targets children aged 0 to 59 months, while the other surveys mostly target children aged 6-59 months. The KIHBS data collection took a whole year, while the KDHS data collection took six months, and the other surveys took three months.

To compare trends in recalculated indices from the surveys, a common age cohort database was developed by excluding the population aged 0-5 months and retaining population aged 6-59 months.

Comparison stunting prevalence between children 0-59 and 6-59 in KDHS and MICS
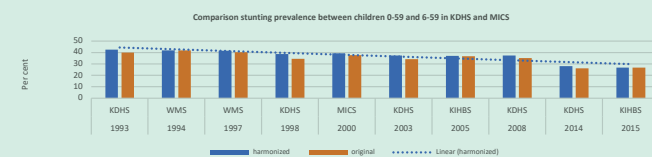
The prevalence of stunting in children aged 6-59 months was 28.1 per cent, compared to 26.3 per cent in children aged 0-59 months, according to the results of the 2014 KDHS.

Comparison underweight prevalence between children 0-59 and 6-59 in KDHS and MICS
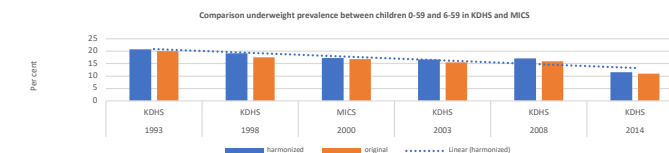
The prevalence of wasting, on the other hand, has resulted in a decline in the rate, which means that wasting in children aged 6-59 months is lower than in children aged 0-59 months. According to the 1998 KDHS results, for example, the prevalence reduced from 9.5 per cent to 9.3 per cent.

Comparison wasting prevalence between children 0-59 and 6-59 in KDHS and MICS
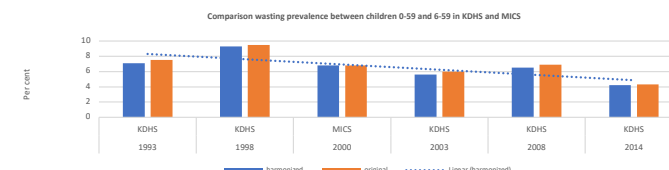
In general, the trends in prevalence of stunting and underweight for children aged 6-59 months are higher than for children aged 0-59 months, though wasting indicates an improvement over the study period. This observed phenomenon cannot be clarified by this analysis and necessitates further investigation.

Is Kenya on track to meet global and national malnutrition goals?

The global goals are focused on outcomes for children aged 0 to 59 months. Since the KDHS included information for children aged 0 to 59 months in Kenya, the recalculated anthropometric indices were used in this analysis.

The Average Annual Rate of Reduction (AARR) is the annual per centage drop in prevalence. As a result, a positive sign signifies an improvement or downward trend, while a negative sign indicates a worsening situation or upward trend.

Indicator	AARR	p-value
Stunting	1.6	0.059
Underweight	2.5	0.022
Wasting	2.7	0.124
Overweight	2.1	0.072

The prevalence of stunting was decreasing at a rate of 1.6 per cent per year, whilst the prevalence of underweight was decreasing at a rate of 2.5 per cent per year. There was no major change in the incidence of wasting, while overweight was decreasing insignificantly at 2.1 per cent.

If existing conditions during the focus period remain constant, the study estimates that stunting for children aged 0 to 59 months will be around 23.8 per cent by 2025, compared to a calculated WHA goal of 12.6 per cent, which will fall further to around 22.0 per cent by 2030. Similarly, underweight, waste, and overweight rates were projected to be about 9.0, 3.6, and 3.1 per cent, respectively, by 2025.