New dairy regulations in Kenya: potential side effects on infant milk intake

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Introduction
Over 80% of low-income consumers in Kenya buy milk from informal dairy channels. Despite its nutritional security role to vulnerable groups, food safety concerns in the informal dairy have triggered the formulation of a dairy policy that bans the sale of unprocessed milk.

Purpose
To assess the potential impact of milk price increase on households’ milk allocation to infants between 6 and 48 months of age would be affected from the policy change banning raw milk marketing.

Methods
We conducted a choice experiment in low-income households in Nairobi that rely on informal dairy markets to meet the dairy needs of their 6-48 months old children.

The experiment contained 9 different milk allocation alternatives that respondents were to choose from if the price of milk increased.

The allocation alternatives were grouped into 9 hypothetical scenarios each containing 4 options for the respondent to select the alternative they considered best and the one considered worst for each scenario.

The alternatives ranged from adjusting budgets or amount of milk allocated to substituting milk by another food item or stopping the purchase altogether.

We analyzed the selected best and worst alternatives to identify the relative importance of each alternative to the households, used latent class analysis to cluster the households into segments, and used households’ characteristics to characterize each segment.

Findings
The most chosen overall option if prices increase was decreasing the amount of milk purchased and substituting it with another food item only for children below 4 years old. The second-best option was decreasing the amount of milk purchased and replacing it with another food item for the entire family. The least preferred alternative was stopping the purchase of milk.

We obtained 3 groups of households – Below chart shows best option for each group and its characteristics.

Group 1
Decrease raw milk quantities for all family members with replacement by another food for all members. Majority belong to the middle-income tier. Has highest milk budget.

Group 2
Keep buying the same quantities of milk by increasing milk budget. Majority (55%) belong to the highest income tier. Has second highest milk budget.

Group 3
Decreasing the quantities of milk purchased but with replacement by another food product for infants only. Bigger proportion belong to the lowest income tier. Has lowest milk budget.

Those opting for alternatives that entailed substituting milk with other food items considered foods that are not of similar nutritional value as milk like porridge and fruits/fruit juices.

Poorest households would be the most affected by milk prices, and directly affecting allocation to children. 3 of 4 best choices overall entailed decreasing the amount purchased in all households.

Conclusion
- Policy resulting in an increase in milk prices would decrease overall milk demand and consumption in poor households.
- Quantity of milk allocated to children below the age of 4 is reduced when milk prices increase – potentially affecting their nutritional security.
- Dairy policies targeting food safety concerns should consider the responsiveness of consumers to price adjustments, preference and allocations.
- Such policy should not only promote safe milk consumption but also strengthen household resilience to milk price variations.

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