



# NATIONAL NUTRITION CONFERENCE ETHIOPIA 2021

GENERATION AND MOBILIZATION OF NUTRITION  
EVIDENCE TO TACKLE MALNUTRITION: FROM DATA TO ACTION

## Understanding urban consumers' food choice behavior in Ethiopia: Promoting demand for healthy foods

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# Introduction

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- Malnutrition in its various forms is highly prevalent with huge social and economic costs
- Chronic undernutrition and micronutrient malnutrition remain widespread
- Both rural and urban households consume highly monotonous, and undiversified diets
- Particularly, children fare poorly by many standards of nutrition metrics
  - Children under five (CSA, 2017)
    - 38% are stunted
    - 10% show wasting or acute malnutrition
    - 44% are underweight

# Introduction

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- Improving availability and affordability of food has been the long-standing approach to ending malnutrition in poor countries.
- But nutritional deficiencies are not always the result of low food availability
  - Increased food availability does not in itself guarantee access to adequate food
  - Nor does the gross quantity produced say much about the quality of diets
- Increasing interest to understand non-food factors
  - Consumer food behaviors and eating practices
  - Nutrition knowledge
  - Food attitudes and perceptions
  - Distribution of food decision-making power within the household (gender-empowerment)

# Materials and methods

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- Data collection in Addis Ababa in the third quarter of 2017
- Multi-stage sampling process
  - Six sub-cities
  - 20 woredas
  - 40 ketanas
  - 996 households interviewed
- Questionnaire and key variables
  - Nutrition knowledge
  - Household dietary diversity score (DDS)
  - Underlying motives for food choice
  - Attitudes and beliefs
  - Choice of food outlets
  - Use of food labels
  - Food taboos and perception

# Characteristics of the respondents

Variables	Description	Mean	Std. Dev.	Min	Max
Female	1 = Yes, 0 = No	0.82	0.40	0	1
Age	Age of respondent in years	43.5	15.4	12	90
Married	1 = Married, 0 = No	0.60	0.50	0.0	1.0
Education	1= No formal education, 0 = Otherwise	0.26	0.44	0	1
	1 = Primary and secondary, 0 = Otherwise	0.61	0.49	0	1
	1 = Above secondary, 0 = Otherwise	0.13	0.34	0	1
Family size	Number of people living within the household	4.60	2.00	1	13
Religion	1= Orthodox Christian, 0 = Otherwise	0.80	0.40	0	1
Residence	Number of years in the current residence	25	17.1	0.0	85
Immigrant	1= Household moved to Addis from another place of more than 20km, 0 = Otherwise	0.40	0.50	0.0	1.0
Income	1 = Less than 3,000, 0 = Otherwise	0.41	0.49	0	1
	1 = 3,000 - 4,999, 0 = Otherwise	0.25	0.44	0	1
	1 = More than 5,000, 0 = Otherwise	0.34	0.47	0	1
Remittances	1 = Household receives remittance income, 0 = Otherwise	0.20	0.4	0	1
Primary economic activity	1 = Public employee, 0 = Otherwise	0.1	0.3	0.0	1.0
Garden	1 = Household owns a home garden for vegetables and/or fruits, 0 = Otherwise	0.10	0.30	0.00	1.0
Nutrition qualification	1 = Respondent had health or nutrition related qualification, 0 = Otherwise	0.10	0.32	0	1

Source: Consumer survey

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# Results: Nutrition knowledge

Summary of nutrition knowledge scores for different quintiles as sub-samples

Variable	Mean	Std. Dev.	Min	Max	Freq. (n)
Nutrition knowledge	24.93	5.80	0	39	996
Quintile sub-sample scores					
Poorest score	16.4	4.62	0	21	212
Poor score	23.1	0.79	22	24	198
Medium score	26.1	0.82	25	27	244
Good score	28.4	0.50	28	29	150
Best score	32.1	1.97	30	39	192

- Nutrition knowledge was elicited using 43 questions
  - Advice from health experts (12 questions),
  - Food groups and nutrient sources (23 questions), and
  - Diet–disease relationships (8 questions)
- Correct answers
  - High when the correct answer is either ‘high’ or ‘true’, but low when the correct answer is either ‘low’ or ‘false’ (perhaps answering affirmative to hide ignorance)
  - Relatively low for the multiple-choice questions on diet-health relationships

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# Results: Dietary diversity score

Households consuming specific food group in past 7 days, percentage of households

Food group	All	Nutrition knowledge quintile scores					Chi-square test (p-value)
		Poorest	Poor	Medium	Good	Best	
Cereals	99.5	98.6	100.0	100.0	98.7	100.0	0.066
Roots and tubers	85.2	65.6	90.4	90.6	87.3	93.2	0.000
Vegetables	98.6	96.2	99.5	99.2	99.3	99.0	0.025
Fruits	55.1	37.7	53.5	59.8	60.0	66.2	0.000
Meat and poultry	53.9	42.9	43.4	54.9	64.7	67.2	0.000
Eggs	52.0	41.0	40.9	57.4	55.3	66.2	0.000
Fish and other seafood	3.1	1.4	3.0	4.1	1.3	5.2	0.126
Legumes, nuts and seeds	97.3	93.9	97.5	98.0	98.7	99.0	0.012
Milk and milk products	53.3	42.9	46.5	55.7	56.7	66.2	0.000
Oils and fats	64.5	44.3	63.6	68.9	71.3	76.6	0.000
Sweets (sugar and honey)	90.5	88.7	88.4	91.8	88.7	94.3	0.194
Spices, condiments and beverages	99.8	97.2	99.0	99.6	100.0	98.4	0.088
Household Dietary Diversity Score (HDDS)	8.5	7.5	8.3	8.8	8.8	9.3	0.000

# Results: Motives for food choice

Share of consumers that considered a specific aspect of food important or very important

	All	Nutrition knowledge quintile scores					Chi-square test (p-value)
		Poorest	Poor	Medium	Good	Best	
Health	90.9	83.5	90.9	90.6	95.3	95.8	0.000
Taste	80.8	70.7	77.8	79.5	91.3	88.5	0.000
Price	79.5	78.3	83.3	77.1	80.0	79.7	0.575
Food safety	78.2	66.5	76.3	81.1	82.0	86.5	0.000
Familiarity	73.7	59.0	78.28	72.5	78	83.3	0.000
Nutritional value	62.6	39.2	53.0	72.1	70.7	79.7	0.000
Easiness to prepare	58.7	53.3	60.1	60.2	64.7	56.8	0.244

- Health is considered the most important factor
- But nutritional value is valued less as compared to health
- Importance of price does not vary by nutrition knowledge



# Results: Healthy eating attitudes

Healthy eating attitudes, percentages

Healthy eating attitude statement	All	Nutrition knowledge quintile scores					Chi-square test (p-value)
		Poorest	Poor	Medium	Good	Best	
It is important that the food I eat keeps me healthy	85.9	80.7	84.8	83.6	90.7	92.2	0.004
It is important that the food I eat contains natural ingredients	74.8	59.4	75.3	73.0	84.7	85.9	0.000
It is important that the food I eat is nutritious	71.2	52.4	67.2	73.0	82.0	85.4	0.000
It is important that the food I eat contains a lot of vitamins and minerals	66.8	45.3	65.7	71.3	78.0	77.1	0.000
It is important that the food I eat is low in fat	61.4	48.1	56.6	58.6	73.3	75.5	0.000
It is important that the food I eat is high in fiber and roughage	54.4	36.8	53.0	56.6	63.3	65.6	0.000
It is important that the food I eat is low in calories	42.8	28.8	37.4	39.8	50.0	62.0	0.000
It is important that the food I eat helps me control my weight	47.8	33.0	40.4	46.7	60.0	63.5	0.000

- Health is again the most important
- Nutritious less so as compared to health

# Results: Nutrition information search

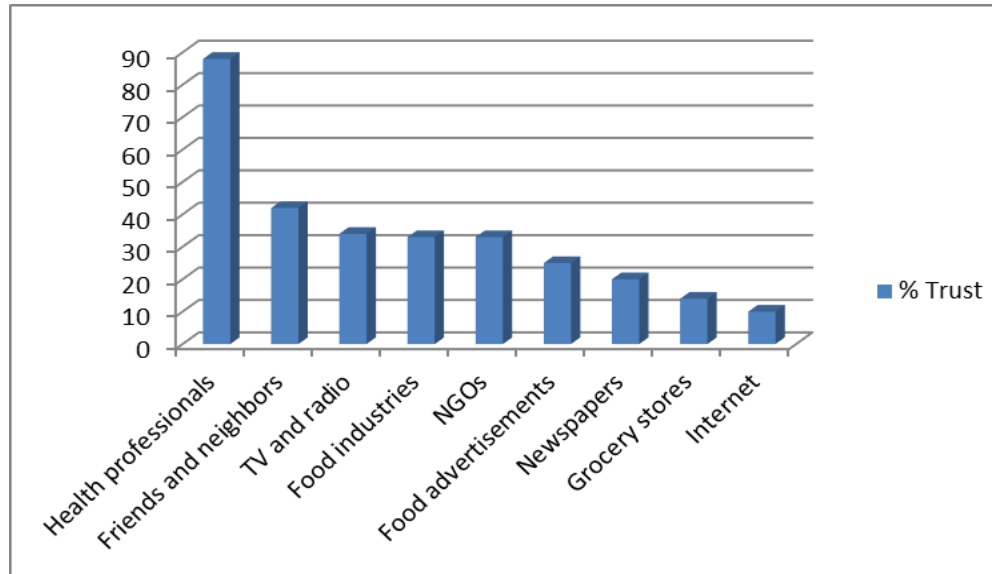
Consumers' assessment of relative importance of specific information on food labels

Information on food labels	Not at all important	Slightly important	Neutral	(Very) important
Expiry date	-	0.04	0.01	0.94
List of ingredients	0.08	0.20	0.06	0.66
Nutritional information (energy, fat, protein, vitamins and minerals)	0.08	0.19	0.05	0.67
Nutrient content and health claims (low in cholesterol, low in fat, low in sugar)	0.08	0.16	0.06	0.71
Brand (producer)	0.14	0.22	0.07	0.58

- 60 percent indicated using food labels to some degree when they bought foods
- Expiry date most important
- List of ingredients and nutritional information valued less as compared to expiry date

# Results: Nutrition information search

Trust in various sources of nutrition information



- Health professionals are by far the most trusted source of nutrition information
- Internet grocery stores and news papers are the least trustworthy sources of nutrition information

# Results: Harmful food taboos

Rejection of harmful food taboos, percentages

Statements	All	Nutrition knowledge quantile scores					Chi-square tests (p-value)
		Poorest	Poor	Medium	Good	Best	
Pregnant women should avoid the consumption of green leafy vegetables for these can be plastered on the body of the fetus	73.3	50.0	64.1	78.3	87.3	91.1	0.000
Pregnant women should avoid fatty foods, like meat, milk and yoghurt, to avoid a fat baby and difficulties during delivery	61.5	39.6	55.1	61.1	76.7	81.3	0.000
Young children (6-24 months) should not be given meat and meat products as their stomach cannot digest these foods	49.1	25.0	45.5	50.8	57.3	70.8	0.000

- A considerable proportion of respondents endorse the harmful food taboos
- 47 percent believed that young children should not eat meat (4% not sure) and
- 31 percent believed that pregnant women should avoid meat and milk products (8% not sure)

# Conclusion

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- Health was the most important factor in individuals' food choice.
- However, most consumers were found to have imperfect understanding of the link between food and health.
- Especially, the causes and consequences of obesity were poorly understood.
- A considerable proportion of respondents also endorsed harmful food taboos
- Nutrition knowledge was positively associated with more diversified diets and healthy eating attitudes and practices
- Individuals with higher levels of nutrition knowledge were also more likely to reject harmful food taboos.

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Thank you!

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