





# Objectives

1. To estimate consumption of ultra-processed foods among rural adolescents aged 15 - 19 years
2. To assess the dietary diversity of rural adolescents aged 15 - 19 years

# Methods and Analysis

Ethical clearance was obtained from university research cell

## Sample Size for Frequency in a Population

Population size (for finite population correction factor or fpc) (N): 1000000  
 Hypothesized % frequency of outcome factor in the population (p): 50% +/- 5  
 Confidence limits as % of 100 (absolute +/- %) (d): 5%  
 Design effect (for cluster surveys-DEFF): 1

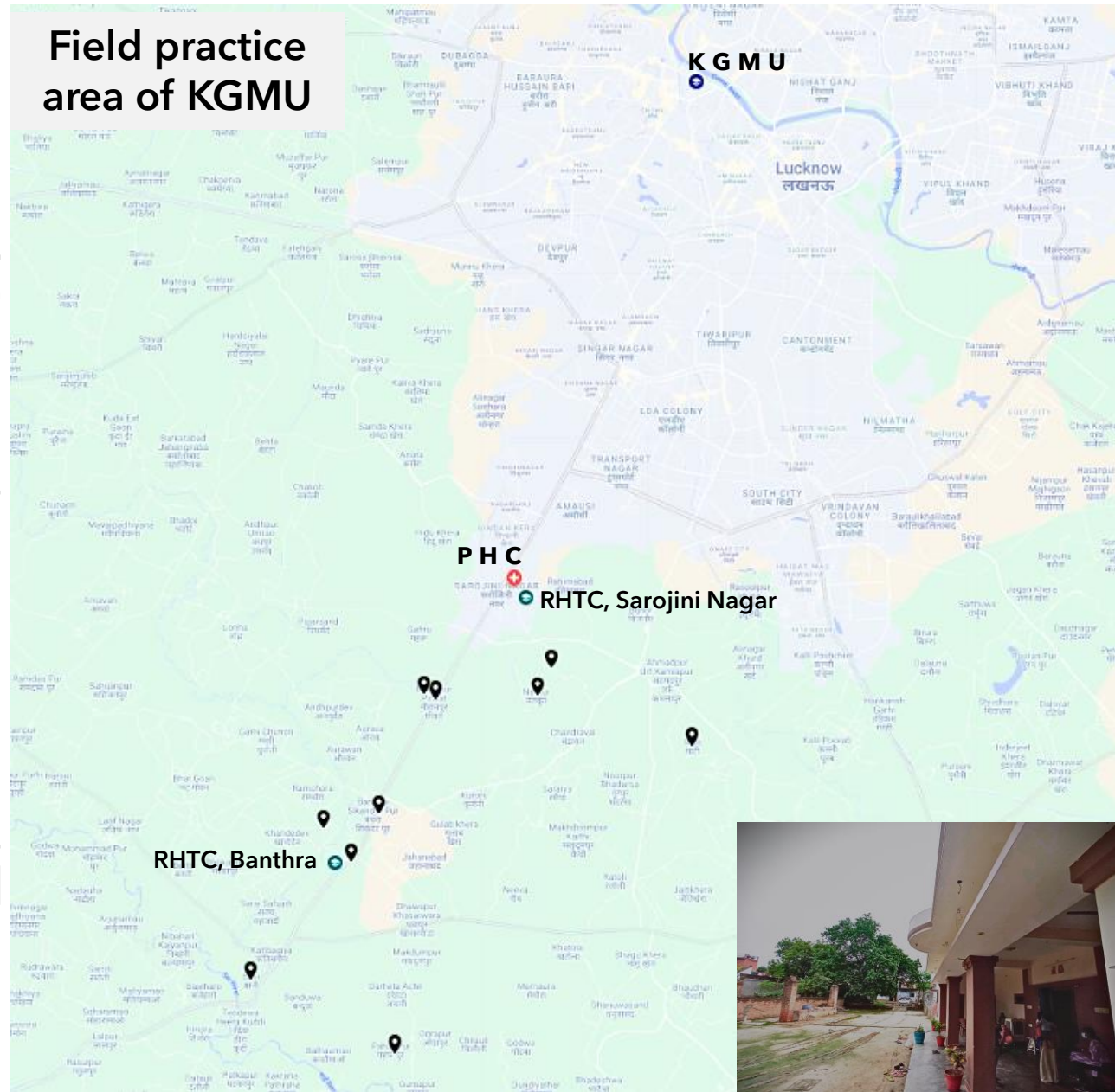
## Sample Size (n) for Various Confidence Levels

Confidence Level (%)	Sample Size
95%	384
80%	165
90%	271
97%	471
99%	664
99.9%	1082
99.99%	1512

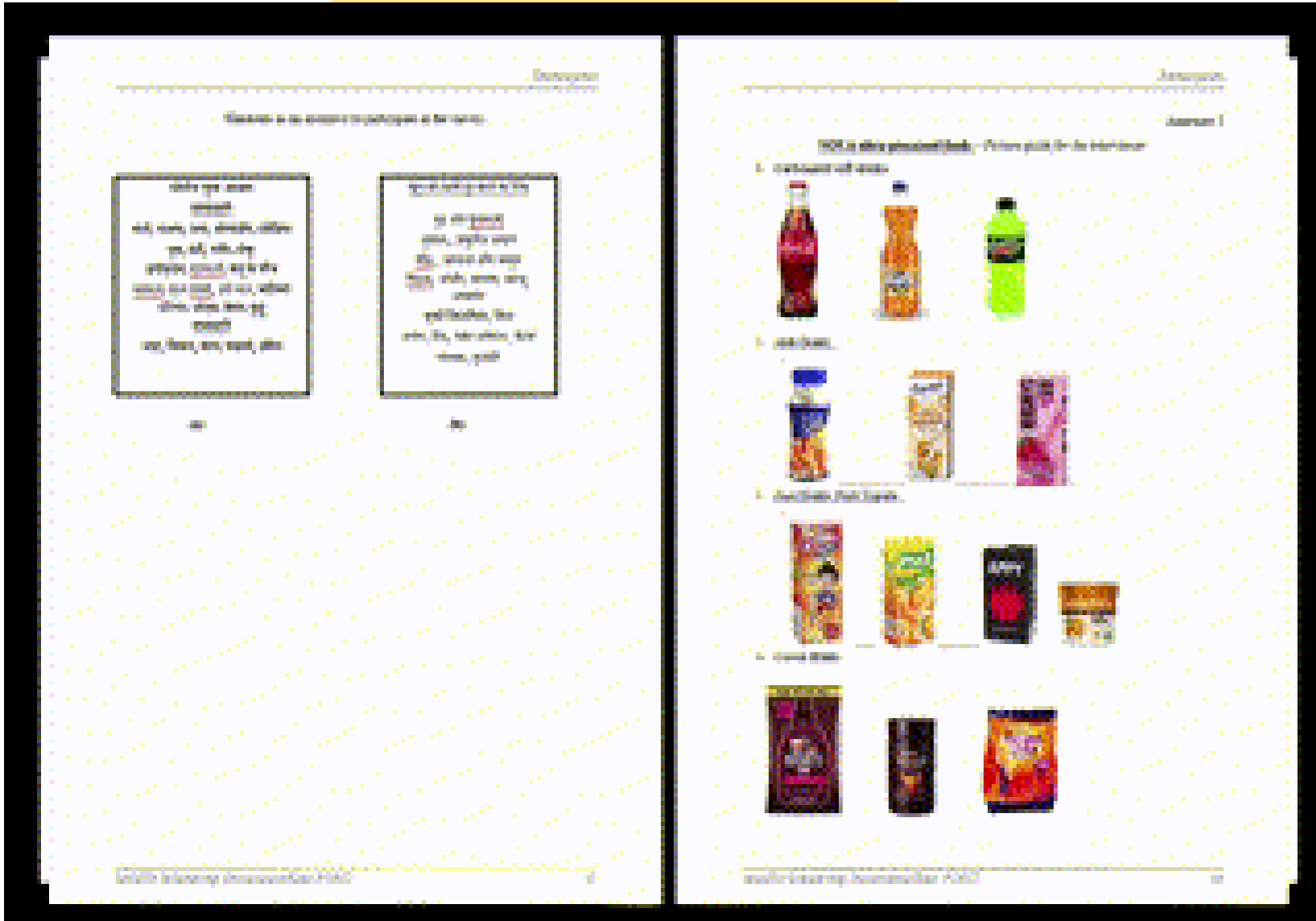
### Equation

$$\text{Sample size } n = \frac{DEFF * N * p * (1-p)}{[(d^2 / Z^2 * 1 - \alpha / 2 * (N-1) + p * (1-p))]}$$

Data collection was on paper mode. Data entry operators were hired. SPSS 26.0 was used for analysis



Picture Guide for Interview



Informative Handouts for participation in study

प्रोटीन युक्त आहार

शाकाहारी

दालें, राजमा, चना, सोयाबीन, लोबिया

दूध, दही, पनीर, टोफू

गर्दीफला, मूंगफली, अमर के बीज

खून की कमी दूर करने के लिए

गुड़ और मूंगफली

चुकंदर, अंकुरित आहार

नींबू, आंवला और जामुन

पिस्ता, अंजीर, बादाम, काजू,

अखरोट

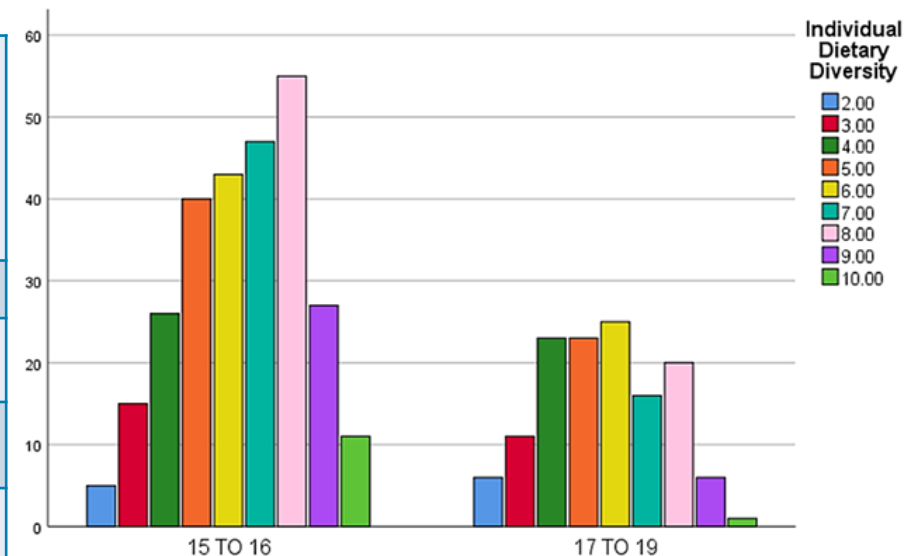
सूखी किशमिश, तिल

अनार, सेब, पका अमरूद, केला

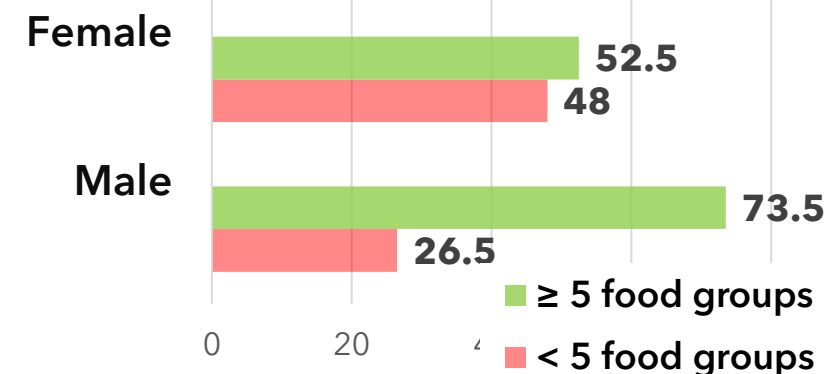
पालक, तुलसी

# Results

Food Groups consumed on a previous day by dietary preference	Vegetarian (n=257)		Non-vegetarian (n=143)		Total (N=400)	
	n	%	n	%	n	%
Grains, white roots and tubers	253	98.4	115	80.4	368	92.2
Pulses (Beans, peas & lentils)	207	80.5	112	78.3	319	79.8
Nuts and Seeds	157	61.0	57	40.3	214	53.6
Milk and Milk products	182	70.8	107	74.8	289	72.3
Meat, poultry and fish	0	0	93	100.0	93	23.2*
Eggs	0	0	65	100.0	65	16.6*
Dark green leafy vegetables	159	61.8	84	58.7	243	60.8
Vitamin-A rich fruits & vegetables	147	57.1	74	51.7	221	55.2
Other vegetables	247	96.1	133	93.0	380	95.2
Other fruits	172	66.9	95	62.6	264	66.0



Age	≥ 5 food groups		0.002
15 to 16 (n= 269)	183	68.0	
17 to 19 (n= 131)	68	51.9	

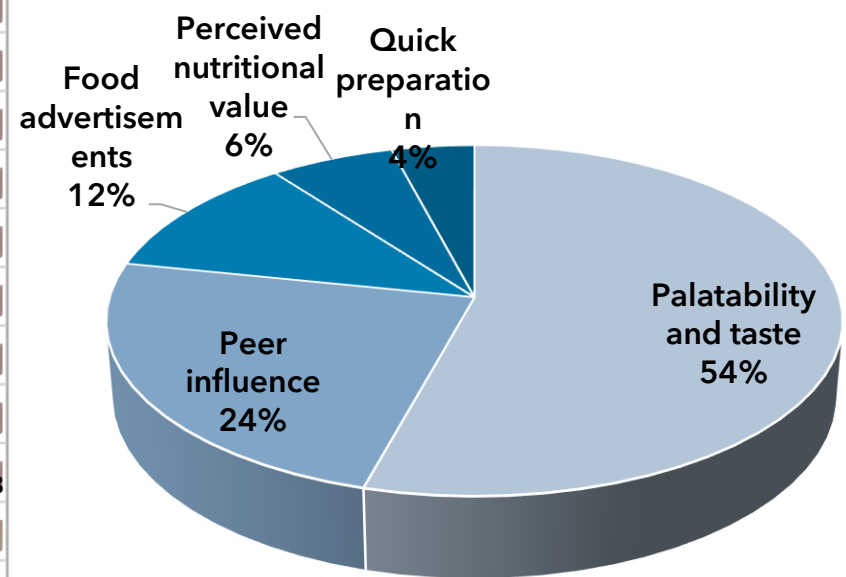
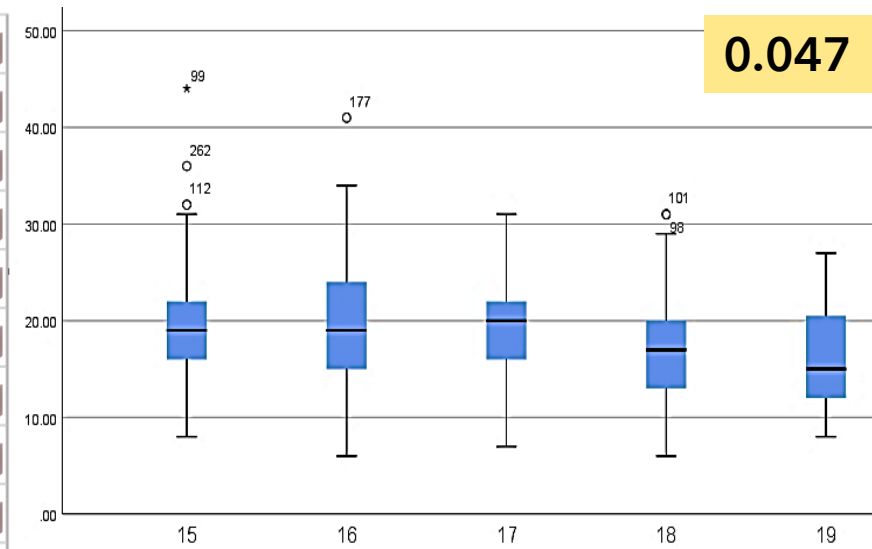
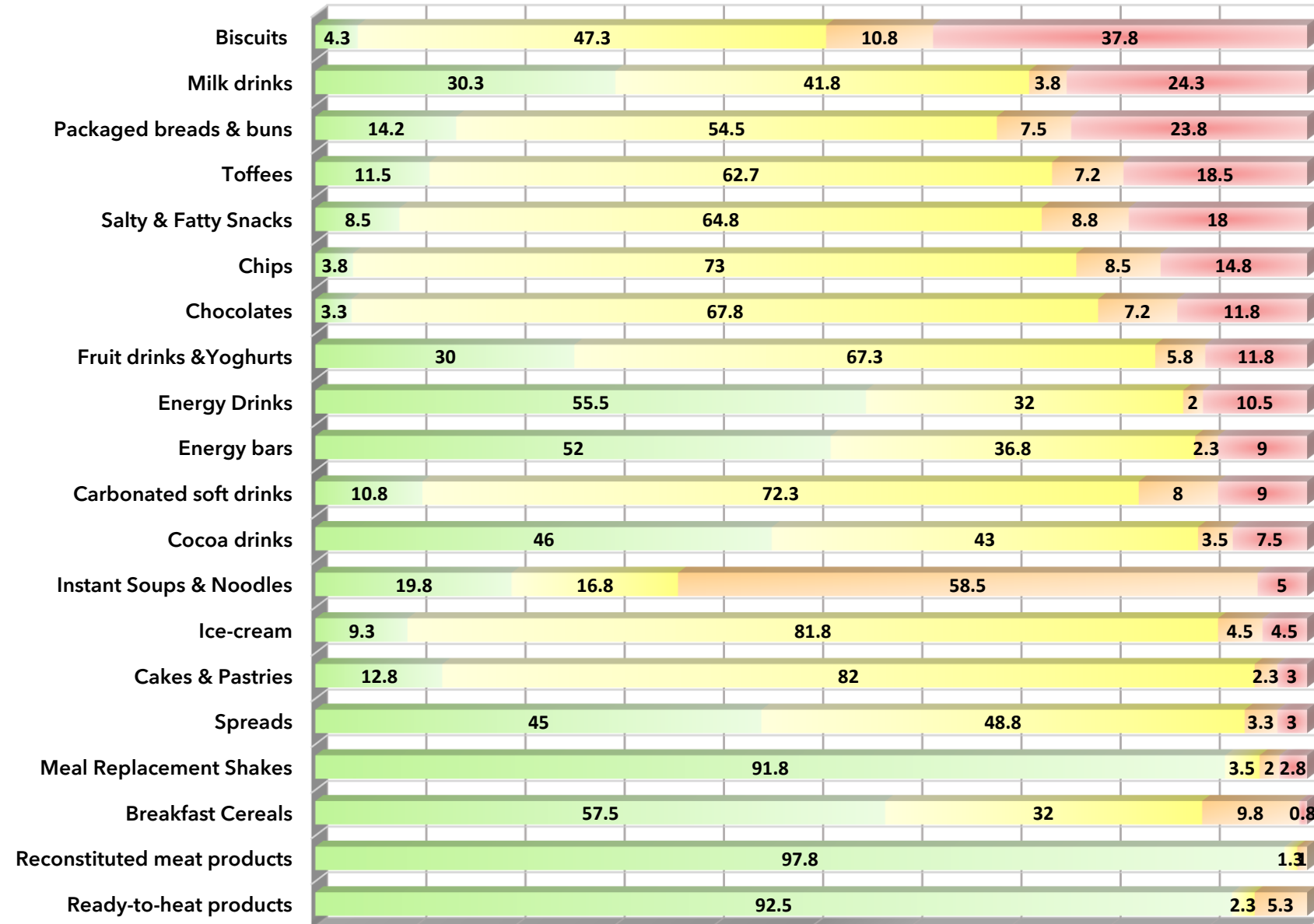


# Results

D4N 2022

## Consumption of each ultra-processed food item in a week

0 days < 3 days ≥ 3 days All days

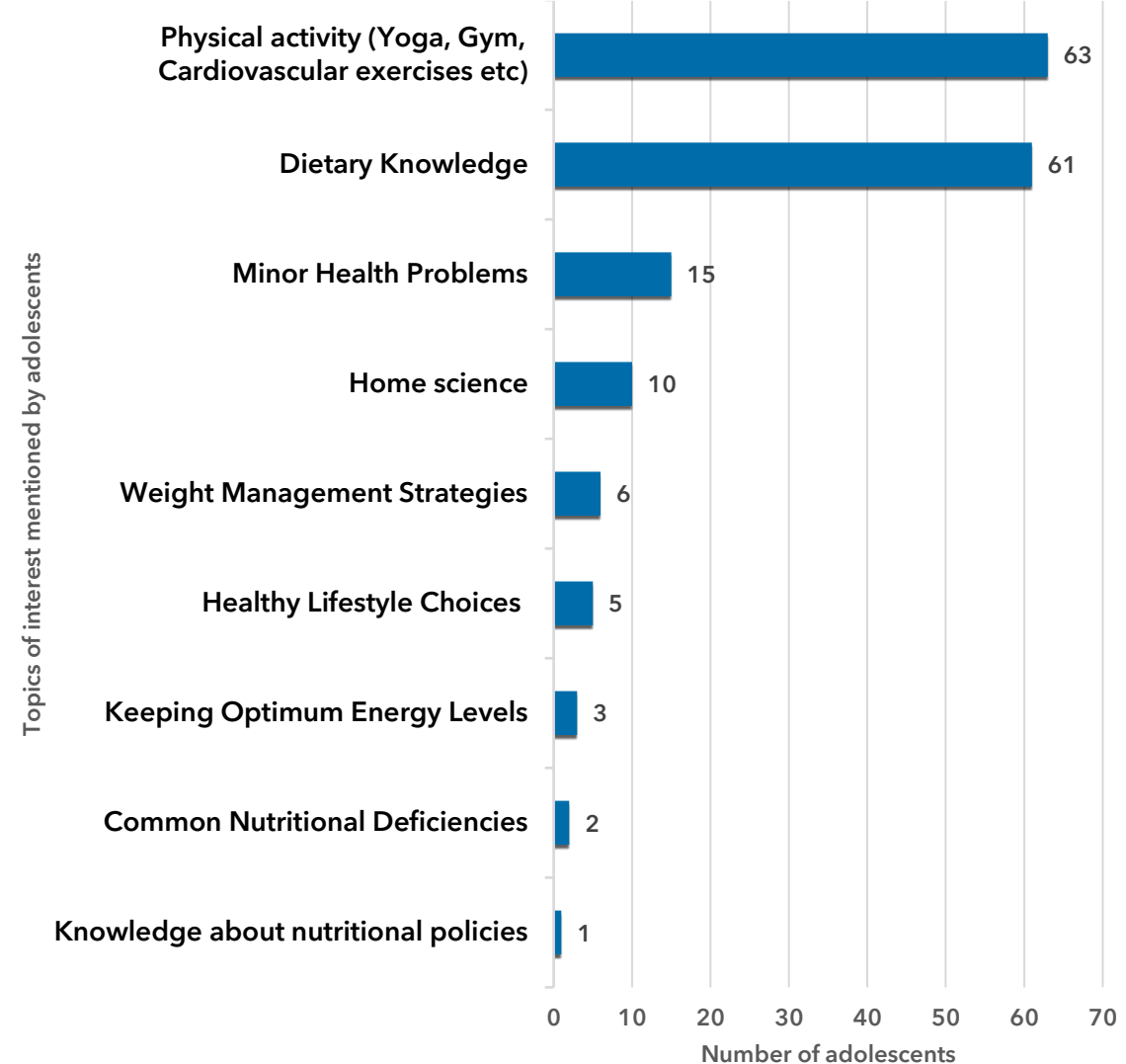


# Policy Implications

**Policy framework to tackle infiltration of ultra-processed foods even in rural adolescents.**

**Integration of nutritional knowledge in curriculums and providing conducive environment for healthy diet.**

		n	%
Inclusion of additional nutritional knowledge in curriculum	Yes	369	92.3
	No	31	7.8







# Thank you

## References

1. Oliveira PG, Sousa JM, Assunção DGF, Araujo EKS, Bezerra DS, Dametto JFS and Ribeiro KDS (2022) Impacts of Consumption of Ultra-Processed Foods on the Maternal-Child Health: A Systematic Review. *Front. Nutr.* 9:821657. doi: 10.3389/fnut.2022.821657



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