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URUGUAY, THE COUNTRY OF MEAT: BETWEEN TRADITION AND EMERGING DIETARY SHIFTS

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I. INTRODUCTION

Uruguay is internationally recognized as a leading producer of high-quality beef. This small South American country stands out for its open-pasture, hormone-free, and antibiotic-free livestock systems, and is a global pioneer in mandatory individual cattle traceability. It is also among the world's top beef exporters per capita. Moreover, Uruguay ranks among the countries with the highest per capita meat and beef consumption, reflecting a strong cultural connection to livestock and the national tradition of the *"asado"* [1, 2].

However, despite the economic, cultural, and dietary significance of meat in Uruguay, there is a notable lack of studies quantifying how many people identify as strict non-meat eaters—including vegetarians, vegans, or pescatarians. There is also limited information on the sociodemographic factors influencing reduced or substituted meat consumption. As global debates around sustainability, human health, and animal welfare intensify, it becomes increasingly important to understand whether, how, and why such dietary changes are also occurring within Uruguayan society.

II. MATERIALS AND METHODS

A telephone survey with 601 participants was conducted in Uruguay in February 2022. A series of multiple-choice questions about meat consumption were asked. Open-ended follow-up questions were asked to explore the reasons underlying participants' behaviour. Finally, a series of socio-demographic questions were asked to characterize participants. Further details on the materials and methods used in this research can be found in Realini et al. [3]. For each survey question, multivariate statistical analyses were conducted, considering region, sex, age, education, and socioeconomic level as independent variables. When a statistically significant effect was observed, multiple comparisons were carried out using Tukey's procedure. All analyses were performed in R [4], using the functionalities of the 'survey' package for complex sample designs [5].

III. RESULTS AND DISCUSSION

The effects of sociodemographic factors on meat consumption and the motivations behind restricted meat consumption are presented in Tables 1 and 2, respectively.

Table 1. Sociodemographic factors influencing meat consumption (n=601).

Characteristic	Diet		p-value
	Restricted meat consumers[1]	Meat consumers	
	%	%	
	Place of residence		
Montevideo (capital city)	16.2	83.8	
Rest of the country	14.7	85.3	0.417
Metropolitan area	9.2	90.8	
	Age		
18 to 29	26.3[a]	73.7[a]	
30 to 44	10.8[b]	89.2[b]	0.002
45 to 59	14.8[ab]	85.2[ab]	
60 or more	8.0[b]	92.0[b]	
	Gender		
Male	10.5[a]	89.5[a]	0.034
Female	18.3[b]	86.7[b]	
	Educational level		
Incomplete secondary or less	11.1	88.9	
Secondary	15.1	84.9	0.068
Tertiary	21.4	78.6	
	Socio-economic status		
High	16.2	83.9	
Medium	13.8	86.2	0.817
Low	15.4	84.6	

Note: [1] This group includes vegetarians, vegans, pescatarians, and flexitarians.

Table 2. Motivations for reducing meat consumption according to sociodemographic characteristics (n=89).

	Environmental Protection		Avoiding animal cruelty/death		Human Health		Other Reasons	
Characteristic	%	P-value	%	P-value	%	P-value	%	P-value
	Place of residence							
Montevideo (capital city)	37.8	0.539	45.9		76.7		36.9	
Rest of the country	49.7		50.5	0.820	71.2	0.540	35.4	0.627
Metropolitan area	32.3		59.3		53.1		16.8	
	Age							
18 to 29	49.8	0.410	50.1	0.737	57.5	0.053	44.9	
30 to 44	45.5		39.6		96.6		19.1	0.180
45 to 59	42.7		59.0		75.7		34.9	
60 or more	14.7		39.6		89.7		10.2	
	Gender							
Male	35.1	0.401	26.5[b]	0.020	88.6	0.071	27.4	0.465
Female	48.1		62.5[a]		62.3		38.4	
	Educational level							
Incomplete secondary or less	35.9[a]		37.4		69.4		45.3	
Secondary	28.1[a]	0.033	38.5	0.101	73.0	0.955	23.6	0.437
Tertiary	64.0[b]		70.6		73.2		33.4	
	Socio-economic status							
High	44.7		55.4		83.9		34.6	
Medium	46.6	0.737	57.2	0.192	76.3	0.431	28.6	0.460
Low	35.8		29.4		55.0		46.5	

The sample distribution closely resembled that of the general Uruguayan population [6]. The majority of participants (87.5%) reported following diets that include meat, while 4.3% identified as flexitarian, 5.2% as vegetarian, 1.0% as vegan, 2.0% as pescatarian, and 2.3% reported following other special diets. Younger individuals (18–29 years) and women were significantly more likely to limit their meat intake compared to older age groups and men. A trend toward more restricted meat consumption was also observed among more educated participants ($P<0.10$). No statistically significant differences in meat consumption were observed based on place of residence, or socioeconomic status. These findings suggest that age and gender are the primary sociodemographic factors influencing meat consumption in Uruguay (Table 1), and that education may also be an additional influencing factor. Women more frequently reported concerns about animal cruelty, while men more often cited human health as a reason for reducing meat consumption ($P<0.10$)(Table 2). Participants with higher education levels were significantly more likely to cite environmental protection. No clear patterns emerged for place of residence, age, or socioeconomic status across the various motivations. These results align with those findings reported in the literature review of Del Campo et al. [2], emphasizing the growing influence of animal welfare and environmental concerns on dietary preferences, particularly among younger and female consumers.

IV. CONCLUSION

These findings highlight the growing importance of ethical and environmental concerns—particularly among women and younger, more educated consumers—in shaping meat consumption preferences, which may increasingly influence societal pressure on the sector's social license to operate. Further research is essential to deepen our understanding of causal relationships between consumer motivations and their acceptance of specific meat production systems and labels, to align them with evolving societal expectations.

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