## International Perspectives

# What is meat in Argentina?



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#### **Implications**

- Due to its strong cultural significance, the term "meat" in Argentina has been historically associated with beef, despite its wider definition in the Argentine Food Code.
- Only by the end of the last century did other meats (poultry and pork) start gaining participation in the Argentinean diet as a result of economic and health-related issues.
- · Meat, in general, is recognized as an important source of highvalue proteins by consumers and professionals but not as an important source of minerals and vitamins.

Key words: cultural perception, Food Code definition, nutritionists' perception

According to the Argentine Food Code (http://www.anmat.gov.ar/alimentos/normativas alimentos caa.asp), meat is

"the edible part of muscles from bovine, ovine, porcine and caprine declared suitable for human consumption by an official veterinary inspection before and after slaughter. Meat will be clean, healthy and properly prepared and includes all soft tissues surrounding the skeleton, including its fat cover, tendons, blood vessels, nerves, aponeurosis and all those tissues not separated during its processing. By extension, the diaphragm and the muscles of the tongue are considered as meat, but not the heart, the muscles the hyoid apparatus or the esophagus. The meat definition includes barnyard animals, game, fish, crustaceans, mollusks and other edible species; but not mechanically separated meats."

This definition comprises *cuts* (which correspond to the part of the carcass that can be easily identified anatomically) and *pieces* or *trimmings* (which correspond to all meat that cannot be considered a cut).

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Despite this broad and complete definition of meat, to Argentineans, meat means beef. Food consumption patterns in Argentina derived from the fusion of native and European culinary traditions. As a result of beef's historical high consumption, in the 20th century, it became identified as a meal itself; beef was considered the core of all dishes. Vegetables and starchy foods were seen as garnishes, which meant that a dish without beef was not food. Vegetables, potatoes, and pasta lacked the status of food in the culinary imagination of the Pampas.

Nonetheless, in recent years, beef consumption has declined while poultry and pork consumption has risen (Figure 1). This is likely the result of concurrent changes: incorporation of new technology in production systems and industry, the purchasing power of the population, local policies adjusting to global processes, and cultural changes that value new concepts of the body in terms of health and beauty. In the social representation, beef is a masculine kind of food compared with fish or poultry, which are viewed as feminine because society projects the images of masculinity and femininity over food.

Beef consumption in Argentina has its own history. The Argentinean Pampas is a vast herbaceous steppe originally populated by rodents, guanacos (camelids), and birds (among which the ñandú—American ostrich—stands out), which constituted the animals that provided meat to the natives (hunters and gatherers). The true history of Argentinean meat began with the domestic animals brought by the Spaniards during colonization, which freely reproduced by the thousands as no competitors or predators inhabited the extensive steppe. Due to a small population facing an area overflowing with cattle, ever since the times of the Viceroyalty of the Río de la Plata (XIIV

century) a consumption pattern based on beef was established; beef offered ecological, economic, and nutritional advantages. The archaeologist Silveira (2005) has estimated that in the 17th and 18th centuries, annual per capita beef consumption in Buenos Aires was as high as an average 220 kg.

In the 1960s, national beef annual per capita consumption ranged between 67 and 92 kg, followed by lamb, which ranged between 5.4 and 6.4 kg (Figure 2). Since then, a clear trend toward a reduction in beef and sheep consumption can be observed. Sheep consumption reached a minimum of ~1 kg per capita per annum in the 1990s and never recovered. Despite the general trend, beef consumption has shown significant annual variations mainly associated with its price and socio–economic events occurring in the country. The first official data informing the annual per capita consumption of poultry (1990) and pork (1992) showed an average of 10.9 kg and 5.6 kg, respectively. Since then, poultry and pork consumption has increased by a total of 4- and twofold, respectively; resulting not only in an overall increase in meat consumption (106.3 kg in 2000 to 114.5 kg in 2016), but also in a change in the consumption patterns. In 2000, beef represented 62.4% (66.4 kg) of total

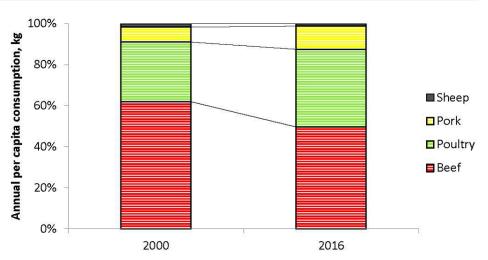
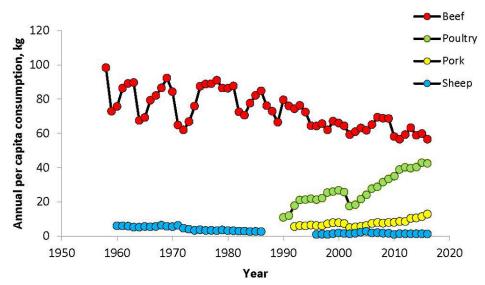


Figure 1. Relative participation of the different types of meats in the Argentinean diet in 2000 and 2016. (Source: Ministerio de Agroindustria de la Nación: www.agroindustria.gob.ar).



**Figure 2.** Evolution of annual per capita consumption of beef, poultry, pork, and sheep in Argentina (Source: Ministerio de Agroindustria de la Nación: www.agroindustria.gob.ar).

meat per capita consumption and, in 2016, less than 50% of it (56.7 kg; Figure 1). According to the FAO (2016), annual fish consumption in Argentina during the period 2013–2015 was 4.8 kg per capita, the lowest of Latin America.

From a broad perspective, during the 20th century, the beef consumption profile contributed to identifying different income groups. As beef represented an important portion of Argentineans' diet, its price had a strong impact on inflation; beef was considered a "wage asset." This is why different governments have attempted to keep beef prices low even if that meant resigning the comparative advantages of the national beef industry. The first Survey of Household Expenditure in the Metropolitan Area of Buenos Aires dates back to 1965 (CONADE, 1965) and registers an average annual consumption per capita of 120 kg of meat with a 3-kg difference between higher and lower income groups. The distinction between groups was not based on the amount of beef consumed, but on beef quality: forequarter cuts for the poorest, and hindquarter cuts for the richest. Three "multifunction" cuts were consumed by both the poor and the rich as they were markers of gastronomic identity (asado—i.e., plate, stews, and milanesas—i.e., breaded steaks).

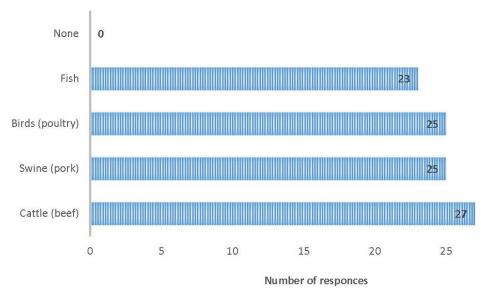


Figure 3. Number of responses from a total of 27 nutritionists to the question: Do you consider that the word MEAT refers to the main food that is obtained from: Cattle, Swine, Birds, Fishes, Other? (More than one option could be selected.)

Thirty years later, a similar survey (INDEC, 1996) showed that annual meat consumption per capita dropped to 85 kg and that the poorer sectors of the population consumed innards and other substitutes while the more affluent sectors consumed fresh meat with a lot of muscle. The last survey (IN-DEC, 2012) showed that the annual meat consumption in the Metropolitan Area of Buenos Aires was only 57 kg per capita. Different concurrent events can be considered as causal of this constant decline. On the one hand, from the second half of the 20th century, social changes such as a massive increase in the number of employed women, demographic and urbanistic changes such as increased life expectancy and urban distances, economic changes such as the re-primarization of the economy, and political changes took their toll on urban ways of eating. On the other hand, the adoption of technological advances by the food industry promoted the replacement of fresh foods by processed foods and, in the 21st century, by ultra-processed products (Monteiro and Cannon, 2010). The need for faster and more practical cooking has turned home meals into a combination of industrial food products stored at home (Aguirre, 2015), and meat is following the same trend. Intake of meat products (deli, hamburgers, sausages, and prepared meals-empanadas) is growing, whereas that of asado is declining. Sales of ultra-processed food (ready-to-consume or ready-to-heat foods) in Argentina increased 19% from 2000 to 2013 (24.7 to 29.5 kg, respectively), being the highest level of 13 Latin American countries (Pan American Health Organization, 2015). In 2000, purchases in fast-food outlets (defined as establishments offering limited menus prepared quickly where customers order, pay, and pick up from a counter) were also highest in Argentina than in any other country in Latin America, with 19.4 kg per capita. But with the socio-economic crisis of 2001, fast-food sales dropped 36% in 2002, followed by a 23% rise between 2002 and 2013 (Pan American Health Organization, 2015). In agreement with this, Argentinean production of meat products, mainly from pork and beef, increased 123% in the period 2002-2015, reaching 530,000 tons that are almost entirely (99.5%) consumed in the domestic market (CHAICHA, 2017).

Other events also converged to push beef consumption down between the first and last survey, as seen in Figure 2. For example, people started to perceive their body in a different way and to do their best to embellish and protect it from diseases and from an early death by controlling their way of eating. To this end, the food industry and nutrition science have established an alliance to develop highly intervened foodstuff (enriched and fortified, including pre- and pro-biotics, among others). Fiscler (1995) calls them "medifoods," which are said to be more wholesome and rational than natural foods. In this representation, beef has been demonized because of its relatively high fat content even though, except for the last 20 years, Argentinean cattle has been almost exclusively raised and finished on pasture, which produces beef leaner than the one obtained in more intensive systems like those in many Northern Hemisphere countries. Thus, the phantom of chronic non-transmissible diseases, which are paradoxically more likely derived from industrialized food, added to the reduction on beef consumption and its substitution by poultry and pork. A 2005 consumer survey (TNS Gallup Argentina, 2005) showed that, after price, fat content was the main reason why Argentinean consumers would not increase

their beef and pork consumption. More recently (2014–2015) in a survey of 1960 consumers who were consulted about their preference regarding steaks with different fat content (2.6 vs. 6.5% intramuscular fat), 86% of the consumers responded that they would purchase the leaner one, and 87% of them considered it a healthier product (Pavan et al., in press).

Positive medical recommendations (e.g., consuming five servings of fruit or vegetables per day) along with restrictive recommendations (less red meats, less whole dairy) condition the diet of the average Argentineans who aspire to long-lasting good health. As the diet becomes "feminine" (i.e., by eating less and lighter food), beef—a symbol of a virile, free, productive, and active *gaucho*—becomes a symbol of the past.

For the present article, a web survey aimed at nutritionists was conducted to know their perception regarding the meat concept. The sevenquestion form asked nutritionists about meat's nutritional aspects and patient perception. All 27 nutritionists who responded to the survey considered that the word meat refers to the food product obtained from cattle while 81.4% of them considered that it also refers to the food products obtained from all four choices given (cattle, swine, poultry, and fish; Figure 3). Ninety-three percent of the respondents associated the word meat with the muscular tissue, whereas the remaining 7% associated it with connective tissue. All of the respondents declared they consider meat to include other tissues; 44% of them considered that all options given (connective tissue, blood vessels, skin, fat, and bones) are contained in the definition of meat. Nutritionists were also asked which characteristic/property/nutritional contribution they associated with beef, by having to choose among the following options: lipid contribution, contribution of essential minerals, contribution of amino acids, and other. The main characteristic associated with beef was the contribution of amino acids (81.5%) while a single respondent selected the "other" option, indicating iron.

Based on the National Dietary Guidelines, the National Health Ministry of Argentina published 10 messages to transmit the main guidelines to the general public. The message referring to meats and eggs suggests removing all visible fat when consuming meats, increasing fish consumption, and including more eggs in the diet (Ministerio de Salud-Presidencia de la Nación,

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#### **About the Authors**



Enrique Pavan was born in Tandil, Argentina on 21 Jan. 1973. He obtained a B.S. in Agricultural Sciences (1996) and a Magister Scientiae degree (2000) at the Universidad Nacional de Mar del Plata (UNMdP), Argentina and a Ph.D. (2006) at the University of Georgia, GA, USA. He is currently the head of the Ruminant Nutrition and Product Quality research group at the Estación Experimental Agropecuaria Balcarce, Instituto Nacional de Tecnología Agropecuaria (INTA), Argentina. He is also a professor at the College of Agricultural Sciences of the UNMdP, where he teaches a course on Quality and Tech-

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2016). The message indicates that a) a daily portion of meat should be represented by the size of the palm of the hand; b) fish, white meats, and red meats should be included in the diet two or more times, two times, and up to three or more times a week, respectively; c) up to one egg per day should be included in the diet, especially if not enough meat is consumed; and d) meat should be cooked until no red or pink parts are visible in order prevent food-transmissible diseases. In line with these recommendations, all the nutritionists who answered the survey said that they recommend the consumption of meat to their patients, which their patients associate with beef. As a result, 81.5% of the professionals reported that most of the time, they must clarify what the word meat refers to when recommending its consumption to the patients.

In summary, ever since colonization by the Spaniards, beef has been an important component of Argentinean culture and diet. Meat means beef for the vast majority of Argentineans. Nonetheless, as a result of different socioeconomical changes occurring since the end of the 20th century, other meats are being included by Argentineans in their diets and also in the concept of meat itself.

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