



Truth About Food: The Data

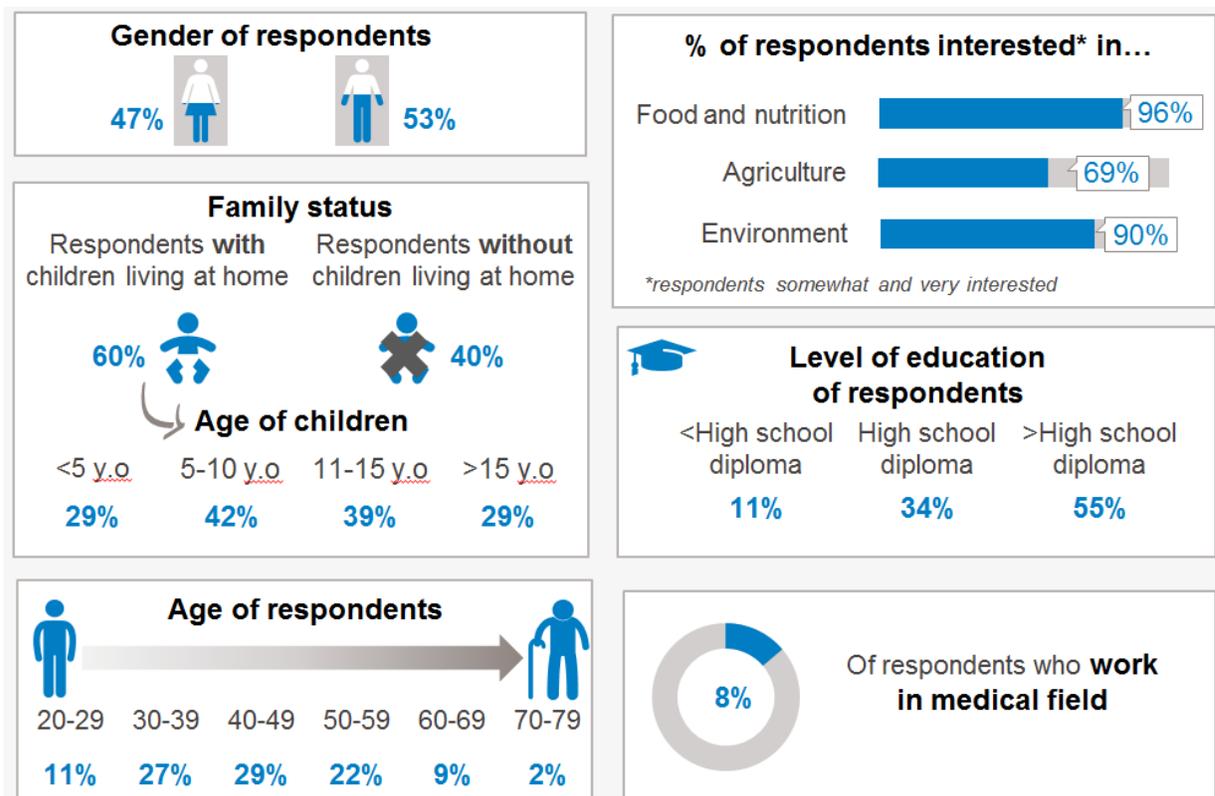
The Enough Movement commissioned Kynetec, a leading global market research specialist, to conduct a global study into attitudes and beliefs behind food and nutrition choices. The goal of this study was to gauge the connection between consumers' personal level of understanding of popular food and nutrition topics and the choices they assert when shopping.

The 2016 survey included 3,337 urban consumers in 11 countries (an average of 300 respondents per country):

- Argentina
- Brazil
- Colombia
- France
- Germany
- Italy
- Mexico
- Peru
- Turkey
- United Kingdom
- USA

Survey Confidence: The survey response level provides a margin of error of +/-5.7% at 95% confidence level.

Survey Demographics:



- Urban consumers (living in large cities across the different target countries)
- Blend of age, sex, household income, education level
- At least 60% of respondents have children at home
- Primary shopper of food products in the household and/or interested in food and nutrition

- Respondents or close family members not working within agriculture, food manufacturing or in market research

Overall Summary of Findings

Consumers globally care about food and nutrition, with 96% of respondents noting that they are very interested in the subject and 71% reporting it as a frequent topic of discussion among their peer groups and families. However, many consumers lack an understanding of the mechanics of food and nutrition and are confused about food labels, nutritional content, and food production. At times, comprehension of labels and farming practices did not align with consumer habits such as buying organic or antibiotic-free.

A summary of questions and responses appears below. Note: Findings below use global averages.

Strong Interest in Food and Nutrition

- 96% of respondents around the world mentioned they are very interested in food and nutrition and 90% with environment.
- Food and nutrition is noted as a frequent subject of discussion among respondents.
- The Internet is frequently used to seek information on food.
- The level of involvement in food and nutrition varies with gender, level of income, and level of education. Women, families with children at home, people with higher education level and middle or higher level of income are significantly more involved with this topic.
- The younger a respondent is, the more likely they are to talk with family/friends about food and nutrition; look at food labels and claims for making food choices; and seek information on food from social media/bloggers – pointing to growing trends among millennials.
- Women care more about issues including world hunger, climate change, and animal welfare than men do.

Understanding Food Labels

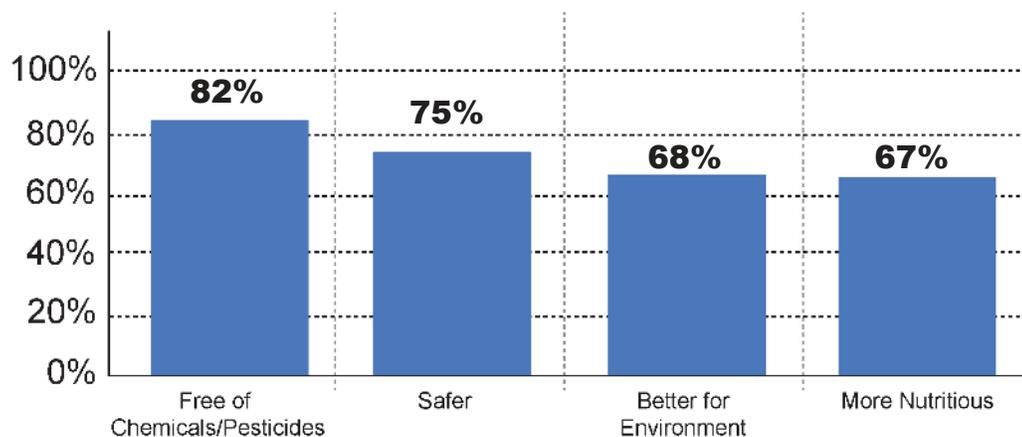
- 80% of respondents said they look at labels or food claims.
- 99% of organic purchasers expressed confidence in their understanding of the organic label. Yet the data show a significant gap between their perceptions and what the label actually means.
- 39% of people globally think the “all natural” label means that food is healthier, and 66% believe the label ensures the product has no artificial ingredients, GMOs, pesticides, or hormones.

The Truth: Labels can be confusing, and can tempt consumers to put food into just two categories: good and bad. But the truth is much deeper. The following sections explore some of the most confusing labels.

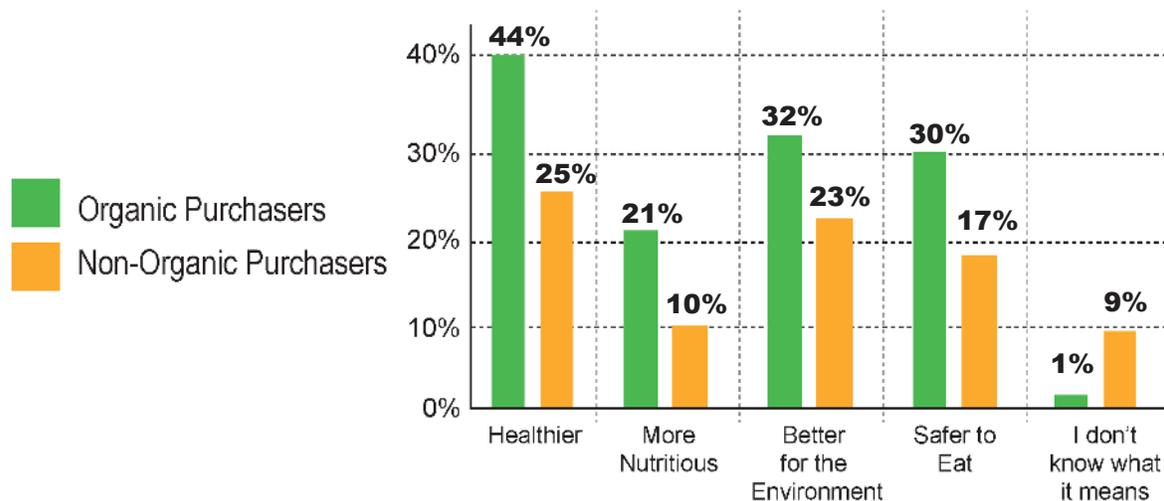
Organic

- 20% of respondents around the world say they frequently purchase organic food and 61% declare they purchase organic food occasionally. Medium-to-high income categories, medium-to-high education levels, households with children, and younger respondents are more inclined to purchase organic food.

Main Motivations for Purchasing Organic



Those who purchase organic food are significantly more likely to believe the organic label means something it doesn't.



1. <http://www.omri.org/omri-lists/download>

The Truth: Organic does not mean pesticide free. Organic farmers may use a variety of chemical sprays and powders derived from natural sources, including substances like boron, copper sulfate and pyrethrin¹ similar to the synthetic versions used in modern farming.

A landmark meta-analysis from Stanford University, which compiled data from 237 studies, concluded that there was no difference in health or nutrition levels found between conventional and organically produced food.²

While organic methods use less fertilizer, herbicides and energy overall, modern farming methods use less per unit produced and resulted in less soil erosion.³

In fact, modern farming practices are often the most environmentally sustainable, using innovation to decrease the amount of land, feed, and water needed to raise meat, milk and eggs today.⁴ Organic food requires more land because organic farming produces lower yields—about 25 percent less on average—a challenge for feeding more than 9 billion people globally in the coming decades. To have raised all U.S. crops as organic in 2014, farmers would have required an additional 109 million acres of land – equivalent to the size of California.⁵

Conventional livestock production systems also reduce environmental impact. Producing one pound of pork in the U.S. requires 78% less land, 41% less water and creates a 35% smaller carbon footprint than 50 years ago. In Europe, today's conventional chicken production saves the equivalent of the CO² emission of 250,000 cars/year compared to free-range production (2% of total)⁶. Because less feed is needed, the carbon footprint impact is reduced by half, while producing the same quantity of meat.

Hormones

- 61% of people believe that “no added hormones” means there are no hormones at all in that meat or milk they are purchasing
- 73% of respondents believe that hormones are used to raise animals
- 66% believe those hormones can cause cancer
- 59% believe those hormones can cause early puberty

The Truth: “No added hormones” doesn’t mean “no hormones,” as hormones naturally occur in all animals. Hormones are never used in pork and poultry production,⁷ as they don’t work. However, they can be used in beef and dairy production. In beef and dairy production, hormone levels in food from animals supplemented with hormones are nearly identical to those that aren’t. And, hormones in naturally hormone-rich foods like cabbage and soy contain far higher levels than meat and milk.⁷

2. <https://www.ncbi.nlm.nih.gov/pubmed/22944875>

3. https://www.washingtonpost.com/lifestyle/food/is-organic-agriculture-really-better-for-the-environment/2016/05/14/e9996dce-17be-11e6-924d-838753295f9a_story.html?utm_term=.602589c92d2f

4. <https://www.enoughmovement.com/report/index.aspx>

5. <http://www.nationalreview.com/article/426417/organic-farms-wasting-water-and-land-far-lower-yields-henry-i-miller-julie-kelly>

6. http://www.bco2.fr/dt_auto_053.htm

7. <http://newsroom.unl.edu/announce/beef/2846/15997>

Source	Estrogen (in nanograms)
Pregnant woman	3,415,000
3 oz. Soybean oil	168,000
Man	136,000
Female child (before puberty)	54,000
3 oz. Wheat germ	3,400
3 oz. Cabbage	2,000
3 oz. Ice cream	520
3 oz. Peas	340
3 oz. Potatoes	225
3 oz. Milk	11
3 oz. Beef from a steer raised without supplemental growth hormones	1.9
3 oz. Beef from a steer raised with supplemental growth hormones	1.3

Hormones used in animals are carefully regulated, their safety has been widely studied, and they help decrease the carbon footprint of milk and meat production by helping animals produce more meat and milk with fewer resources.

Scientific evidence shows there is no change in the composition of milk from cows supplemented with hormones, therefore no changes are present in the milk and dairy products that could affect the age at puberty. The decrease in age at onset of puberty has shown a constant rate of decline since 1940, well before such products were used in animal production. Many environmental factors influence the age of puberty. Body weight and rate of weight gain are strong influences. Malnutrition and under-nutrition delay the onset of puberty. Other influences that delay the onset of puberty include: chronic infections and illnesses. The increasing weight and height and improved nutritional status of children over the past century have been associated with earlier onset of puberty.⁸

There are many peer-reviewed studies that show no association between consumption of milk and incidence of breast cancer. Hormones used in milk production are not biologically active in humans. Factors that are known to increase the risk of breast cancer include obesity in post-menopausal women, early onset of puberty, delayed pregnancy, no or little breast feeding, or no pregnancy history.⁹

Antibiotic Free

About one-third of consumers surveyed believed antibiotic free meant non-labeled products contained antibiotics.

The Truth: Regardless of whether an animal was sick and treated with antibiotics or was raised entirely without antibiotics, the food you buy is free from any harmful antibiotic residue.¹⁰ **Meat and milk are tested to ensure it.**

8. <http://www.naiaonline.org/uploads/WhitePapers/RecombinantSomatotropinASafetyAssessment2010.pdf>
9. <http://www.naiaonline.org/uploads/WhitePapers/RecombinantSomatotropinASafetyAssessment2010.pdf>
10. <https://factsaboutbeef.com/2015/01/27/drug-residues-in-meat/>

Antibiotics are one way, but not the only way, that farmers keep their animals healthy. But using them alone, or in excess, is not sound farming. Farmers and veterinarians use many other methods, such as providing carefully balanced diets to keep animals' immune systems strong and having clean, well-maintained housing. But because bacteria and other microbes are found everywhere in the environment, it's virtually impossible to prevent animals from being exposed to disease, regardless of modern, organic or local production systems. Farmers work with veterinarians to use antibiotics responsibly, which means treating an animal that is sick with the right dose of antibiotics at the right time to help it get better.

Local Production

Half of the respondents (50%), believe local production means “grown within my state/province.”

Other answers:

- Grown in my town (43%)
- Grown in my country (34%)
- Local means better for the environment (13%)
- Local means healthier (10%)

The Truth: There is no agreed-upon definition of what “locally-produced” means. In some cases, local production is worse for the environment. For example, a study showed New Zealand lamb transported to the United Kingdom would generate 70% less CO2 than lamb produced in the United Kingdom. This was due to type of shipping (maritime) and the fact that New Zealand generates a significant portion of its power from renewable sources. So many factors go into both local and foreign food production and movement (type of shipping, storage, labor intensity) that each case really has to be looked at individually to ascertain its environmental impact.¹¹

Modern Agriculture

- Views are mixed on farm structure, with 52% of global respondents believing most farms are run by corporations and 45% believing farms are run by families. 3% say farms are run by the government.
- 42% of respondents believe that agriculture practices have improved over the past 30 years, while 21% believe they have remained stable.
- 45% of respondents believe that food safety has improved over the last 30 years, while 22% believe it has remained stable.

The Truth: According to the most recent census data, 97% of the 2.1 million farms in the United States are family-owned.¹² The percentage of family-owned farms globally is 90%.¹³

“Modern Farming” or bringing animals indoors and controlling their feed as opposed to allowing free-range provides more climate control, better herd management, more specific diet, and less exposure to pathogens. For example, raising pigs indoors to control

11. https://researcharchive.lincoln.ac.nz/bitstream/handle/10182/4317/food_miles.pdf?sequence=1

12. <https://www.usda.gov/wps/portal/usda/usdamediafb?contentid=2015/03/0066.xml&printable=true>

13. <http://www.cgap.org/blog/global-distribution-smallholder-and-family-farms>

their feed has led to a near elimination of trichinosis, a potentially fatal disease caused by worms that were once more commonly present in domestic pigs.¹⁴ Recent avian flu outbreaks around the world have often been better contained in countries where birds are raised indoors with strong bio-security standards.

Feeding the Growing Population

- Reducing food waste is viewed as having the most impact when it comes to providing more nutrition to humans around the world.
- Options that respondents think could have the greatest effect on providing more nutrition to humans across the world are, by order:
 1. Reduce food waste
 2. Develop more local production system
 3. Develop organic farming across the world
 4. Improve productivity / efficiency in raising livestock
 5. Replace animal proteins by vegetal proteins
 6. Reduce meat consumption in the more developed countries
 7. Increase meat production overall (raise more livestock)

The Truth: Food waste is a significant challenge, but a large portion of waste is realized before food hits the supermarket. According to the Food and Agriculture Organization of the United Nations, 30 to 40% of food is lost in production each year.¹⁵ In animals, more than 20% of production is lost to death and disease, which is why animal disease prevention and control are key. Part of this is investment in technology and infrastructure. For example, with proper tools and investment, agriculture output in Africa could increase over 200% by 2030.¹⁶

Choosing a healthy diet

- Consumers ranked meat, milk, and eggs at the bottom of the food groups they viewed as important parts of a nutritious balanced diet, above only sugary treats and sodas.
- Only about 4 in 10 deemed meat, milk and eggs important in the diet.

To what extent are each of the following food groups part of a healthy, balanced diet

	Global	US
Eggs	40%	39%
Dairy	40%	43%
Fruits	69%	62%
Vegetables	71%	65%
Grains	51%	50%
Meat	29%	39%
Sweet Treats, Soda, etc.	5%	17%

14. https://www.cdc.gov/parasites/trichinellosis/gen_info/faqs.html

15. <http://www.fao.org/in-action/seeking-end-to-loss-and-waste-of-food-along-production-chain/en/>

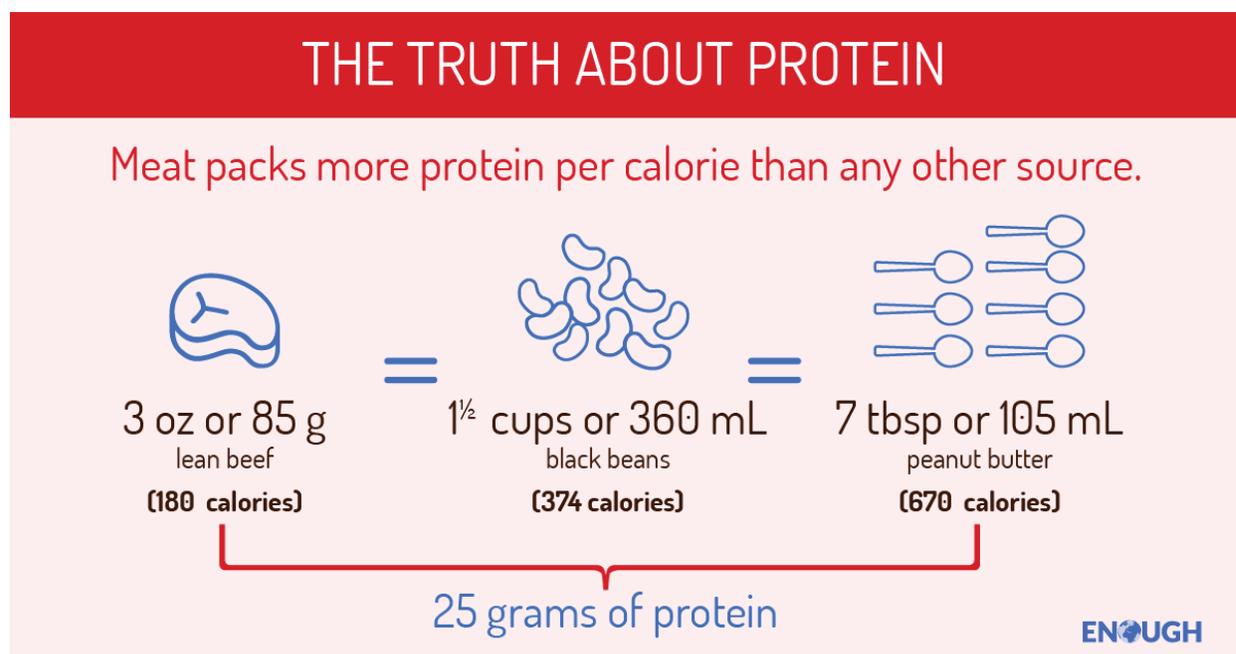
16. Roxburgh, C., Dörr, N., Leke, A., et al. Lions on the Move: The Progress and Potential of African Economies. The McKinsey Global Institute. June 2010. Retrieved from http://www.mckinsey.com/insights/africa/lions_on_the_move

84% of respondents believe we eat too much meat. Although most consumers are attached to meat consumption, they also share the perception that meat consumption could be decreased and replaced by other proteins.

The Truth: The middle class is expected to grow in the coming decades¹⁷, and with it, so will the demand for meat, milk, and eggs. It is estimated that we will need 60% more of those foods globally to meet demand.¹⁸

Protein is a vitally important part of a balanced diet. It supports physical and cognitive development, helps us feel fuller longer to help prevent obesity and is critical in maintaining muscle mass and strength as we age. The U.S National Health and Nutrition Examination Survey (NHANES) data shows “Average intake of total protein foods is close to recommendations.” Only adult men are exceeding recommend intake levels. And no one over age 3 gets enough dairy in the diet.¹⁹

Meat is nutrient rich (including zinc, iron, and vitamin B12) and provides the body with more protein per calorie than alternatives.²⁰ At least 30% of the global population is anemic, primarily attributed to dietary iron deficiency, which is the most widespread form of malnutrition and the most common cause of impaired cognitive development in children.²¹ In fact, a landmark study in Kenya found that supplementing diets with protein from meat and milk can increase physical and cognitive development, improving test scores by 45% and 28% respectively.²²



17. Kharas, H. The Emerging Middle Class in Developing Countries. Organisation for Economic Co-operation and Development (OECD) Working Paper No. 285. January 2010. Retrieved from <http://www.oecd.org/dev/44457738.pdf>
 18. Food and Agriculture Organization of the United Nations. Feeding nine billion in 2050. 12 April 2013. Retrieved from <http://www.fao.org/news/story/en/item/174172/icode/>
 19. <http://health.gov/dietaryguidelines/2015/guidelines/chapter-2/a-closer-look-at-current-intakes-and-recommended-shifts/>
 20. <http://ajcn.nutrition.org/content/82/4/721.full>
 21. <http://www.who.int/nutrition/topics/ida/en/>
 22. <https://www.ncbi.nlm.nih.gov/pubmed/10520364>

Consumers want to be savvy about what's in their food and how it's produced. But there are so many conflicting sources of information driven by different agendas. The choices we make when we're shopping have far-reaching effects.

Deciphering labels and understanding farms can mean the difference not only in your family's health and pocketbook, but also the environment. Sincere intention without solid information is an issue. Share the truth about food with your friends and family! visit www.facebook.com/enoughmovement or www.enoughmovement.com/truth-about-food for more.