

Enriching People's Lives:

A 2013 Report on the Importance of Animal Source Foods

William Weldon, Ph.D., Vice President Research and Development, Elanco Animal Health and
Susan Finn, Ph.D, RD, FADA

“Almost certainly, the first essential component of social justice is adequate food for all mankind.”
– Norman Borlaug, 1970 Nobel Peace Prize winner

Overview

Food security has far-reaching ramifications for health, productivity and quality of life at the individual, community and global levels. Historically, as societies emerge from poverty, they begin to consume animal source foods. Meat, milk and eggs provide nutrients critical for brain and muscle development and disease prevention. In developed countries, where obesity is an issue, animal source foods offer a healthy alternative to less nutrient-dense choices. In both settings, animal source foods help improve health and productivity, ultimately enriching people's lives.

Need for Balanced Diets

Lack of calories and essential nutrients hinders mental and physical development, weakens the immune system and increases mortality, especially among women and children.ⁱ When people are unhealthy, societies fall short of their full potential, which hinders national development for generations.

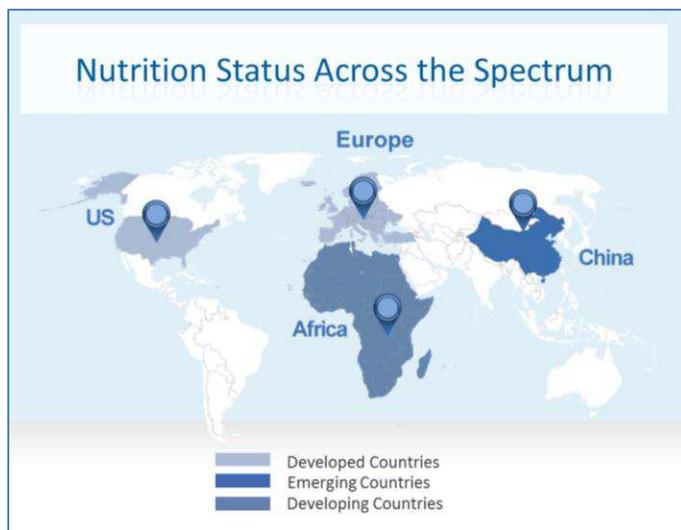
Food Security Defined

The World Health Organization (WHO) declares food security is built on three pillars:

Food availability: sufficient quantities of food available on a consistent basis.

Food access: having sufficient resources to obtain appropriate foods for a nutritious diet.

Food use: appropriate use-based on knowledge of basic nutrition and care, sufficient water and sanitation.



Food security isn't just about those that don't obtain enough calories each day. There's a spectrum of food security with animal source foods delivering important benefits at all levels.

People in developing countries, living on less than \$2 a day and malnourished. *Animal source foods improve brain, muscle and skeletal development.*

People in emerging markets, living on \$3-\$10 a day and moving into the middle class. *Animal source foods help diversify their diets.*

People in developed countries, ranging from the low-income, experiencing hidden hunger, to the affluent, who need to maintain proper weight. *Animal source foods*

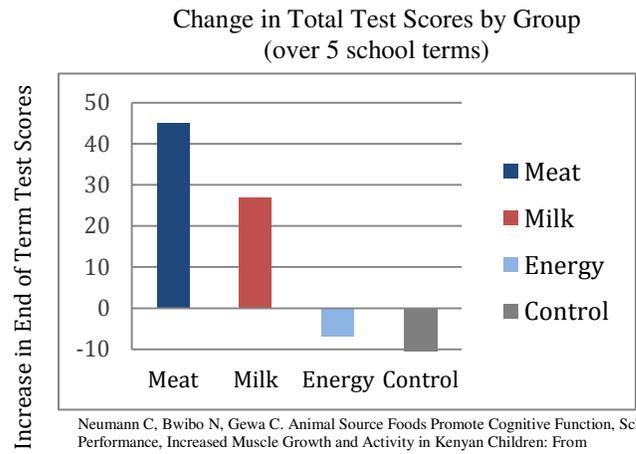
lessen chronic disease risk and obesity.

The Importance of Protein

According to the 2010 Dietary Guidelines Advisory Committee report, animal products provide a greater quantity and quality of protein than plant products.ⁱⁱ Meat, milk and eggs also provide bioavailable micronutrients such as iron, zinc, calcium, and vitamins A, D and B12. These nutrients are often found to be deficient in malnourished people.ⁱⁱⁱ

Consider these benefits of animal source foods:

- Babies whose mothers receive enough iron during pregnancy are born with iron stores that help mitigate the risks of poorer cognitive, motor, social-emotional and neurophysiologic development in the short- and long-term. WHO estimates that eradicating iron deficiency could improve national productivity levels by as much as 20 percent.^{iv}
- In a landmark observational study performed in Kenya, adding animal source foods to the diet – and, in turn, increasing intake of iron, zinc, vitamin B12 and riboflavin – was associated with better growth, cognitive performance, motor development and activity in 1st and 2nd grade children.^v (See figure on the right.)
- High-quality dietary protein contributes to weight loss and maintains a “balanced diet”.
 - Protein may be the single most important nutrient influencing metabolic rate.^{vi}
 - Dietary protein positively impacts several critical body-weight influencers,^{vii} including satiety,^{viii} and body composition.



Ultimately, the often-overlooked impact of animal source foods provides the high-quality protein and key micronutrients essential for physical and cognitive growth and well-being. Meat, milk and eggs not only help alleviate hunger, but meet nutritional needs so both people and society can develop and thrive.

Achieving Food Security

Improving nutrition increases productivity, stimulates economic growth and strengthens society as a whole. To reap these benefits, sufficient nutrient-rich foods must be available to meet the needs of the more than 7 billion people worldwide and an estimated 9 billion by the year 2050.^{ix}

Innovations in animal production have made it possible to produce more animal source foods from fewer animals, which means we can provide protein nutrients to more people without increasing the use of land, feed, and other resources. Advancements in animal nutrition and health help animals use energy needed to produce meat, milk and eggs at their peak level. As a result, the nutritional needs of more people can be met with the same resources.

Achieving food security demands a global vision and long-term strategy. People are hungry for access to the quality, affordable nutrients available in foods such as meat, milk and eggs. But this access will not come without political, economic and social change. This change requires:

1. Broadening understanding of nutritional needs and the role of animal source foods.
2. Empowering collaboration that ensures choice, which increases access to and affordability of animal source foods.
3. Advancing innovation that supports sustainable production of animal source foods.

Get involved in the food security conversation. Help tell the story of the value poultry, eggs and other animal source foods provide to improve individuals, communities and society as a whole.

For more information about the important role of animal source foods in enriching people's lives, visit Elanco.com, follow @Elanco on Twitter or contact Colleen Dekker at 317-276-4076 for a copy of a full white paper on this topic.

ⁱ World Food Programme. Accessed Nov 26, 2012. < <http://www.wfp.org/>>.

ⁱⁱ Giles-Smith K. Milk proteins: packing a powerful nutritional punch. *Today's Dietitian*. 2013;15(3):26.

ⁱⁱⁱ FAO. 2011. *World Livestock 2011*. "Livestock in food security." Rome.

^{iv} World Health Organization, "WHO Global Database on Anemia" Accessed Nov 26, 2012.

^v Cattleman's Beef Board and National Cattlemen's Beef Association. *Beef's Nutrients and Cognition*.

<http://beefresearch.org/CMDocs/BeefResearch/Beef's%20Nutrients%20and%20Cognition.pdf>. Accessed March 21, 2013. Adapted from: Neumann, C.G., Murphy, S.P., Gewa, C., et al. Meat supplementation improves growth, cognitive, and behavioral outcomes in Kenyan children. *J. Nutr.* 137: 1119-1123, 2007.

^{vi} Paddon-Jones D, et al. Protein, weight management, and satiety. *Am J Clin Nutr* 2008;87(suppl).

^{vii} Westerterp-Plantenga MS, et al. Dietary protein, weight loss, and weight maintenance. *Annu Rev Nutr*. 2009;29:21-41.

^{viii} Keller U. Dietary proteins in obesity and in diabetes. *Int J Vitam Nutr Res*. 2011 Mar;81(2-3):125-33.

^{ix} Johnstone AM, et al. Effects of a high-protein ketogenic diet on hunger, appetite, and weight loss in obese men feeding ad libitum. *Am J Clin Nutr*. 2008;87:44-55.

^x FAO, WFP and IFAD. 2012. "The State of Food Insecurity in the World 2012. Economic growth is necessary but not sufficient to accelerate reduction of hunger and malnutrition." Rome, FAO.