

## OPINION



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## Nutrition, medicine combine in customized strategy



Rising health care costs and radical new developments in nutrition science are accelerating the shift in medicine from treatment to prevention. And, as this develops, foods and beverages will be expected to contribute to optimal health in ways no one dreamed of a couple of years ago.

It is easy to envision physicians in the near future prescribing drug and dietary regimens for optimal health, customized to your DNA. A major goal for the physician will be to identify foods, and potentially supplements, that can reduce one's risk for the development and progression of chronic disease. It will no longer be enough to simply say, "Get your 5 a Day for Better Health." Instead, industry and public health professionals will be asked to help consumers identify which portfolio of foods match their genetic profiles for a long and healthy life and how much is too much of a good thing.

It's a redefinition of the intersection between health and food, and there will be new ways of evaluating good and bad diets. New villains and heroes will emerge. The good news is that there's tremendous opportunity for produce to come out a hero, but the industry will need to be clear on its vulnerabilities and how to reduce them.

This is more than simply knowing and promoting your product's phytochemical profile. New sciences are rapidly unraveling the mysteries surrounding nutrients, food and optimal health -- nutrigenomics, metabolimics and nanotechnology -- and

putting the pedal to the metal on the movement to personalized health. With the knowledge being gained, it is reasonable to predict that we soon will be able to segment markets based on risk for disease. One can predict that there will be at least a dozen or so health/disease profiles that retailers will be able to target with repackaged products.

**Reservations:** A handful of companies are offering genomics profiles and nutritional supplements to early adopters looking for an edge, but there is much debate in health circles about whether these tests are accurate or provide ethical information to an uninformed consumer.

While some stew over ethical implications, the U.S. government is forging ahead with a focus on enhancing human performance, particularly during military combat. The Defense Department is working on radical nutrition strategies for endurance and strength during short periods of deployment requiring unprecedented levels of physical demand.

Industry also is investing. Cargill Inc. gave the University of Minnesota \$1 million to expand research in the biological systems that affect human metabolism, nutrition and diseases linked to food consumption. Research will pursue how genetics affects diet and exercise patterns, whether personalized nutrition or dietary interventions can be identified early in life before the onset of disease and on how nutraceuticals might aid in their prevention and treatment.

"This paradigm shift is just beginning to emerge at retail," said Willard Bishop, a retail consultant and founding member of the Food Foresight trends intelligence system. He cites the HealthSmart RX program in several Hy-Vee stores in Iowa in which pharmacists and dietitians advise consumers on healthy food selections.

Our Food Foresights trends panel contends that the personalized health movement is likely to start with high-end consumers, especially aging baby boomers, pressuring the food industry to produce foods to match their genetic background.

Produce has been at the front end of this phenomenon. For the foreseeable future, fruits and vegetables (along with wines, nuts, dairy products and other foods) will continue to evolve as functional foods with multiple bioactive components showing promise in disease prevention.

The produce promotion groups using Food Foresight data in their own strategic planning noted the beginnings of this shift years ago. They are the groups now implementing taste and health positioning strategies that will be in tune with the federal government's recent changes in health claim laws. Being on the front end of change can pay off. Sales of Cheerios, for example, jumped 11% after General Mills began to tout the cereal's ability to lower cholesterol.

Some commodity groups are looking to add value to their products by investing in research to identify ways to increase phytochemical content as well as alter their phytochemical profile toward patterns that amplify the concentrations of the most beneficial nutrients. Similarly, considerable research is aimed at investigating new ingredient opportunities. While it is important to consider the fact that every nutrient will have an upper intake level for safety, it is worth noting that the concentrations of many phytochemicals can be increased by as much as 50% through adjustments in growing and processing practices. This means the table grape industry may well be able to raise its resveratrol content or that a product like lettuce, which provides only modest health benefits, may add a portfolio of micronutrients as a part of a new value proposition.

As new foods, food production and processing systems evolve, grower-shippers will benefit from taking the initiative to partner with others in the agrifood chain -- or even technology and pharmaceutical companies -- and not waiting for others to exploit this evolving opportunity, potentially at their expense. Competition for stomach space is likely to grow in intensity as teams of producers, manufacturers and retailers work together to provide product portfolios designed for new genetic health segments. We're likely to not only see produce battling produce but also intense competition from supplements and engineered foods.

**Marketing implications:** It's also important to think about working with retailers to develop new marketing propositions they can take and own in the marketplace. "Retailers are increasingly showing that they can cost-effectively bring new items to market, and it will be important to align with and, where possible, harness that capability," Bishop said.

There will be opportunities to help consumers who are bombarded with information about what to eat and what to avoid. The Produce for Better Health Foundation and even the brands themselves will be able to position themselves as consumer activists -- clarifying the confusion and misinformation that's likely to follow the introduction of these new age products.

Opportunities abound for produce entrepreneurs, and it's still early in the game. In fact, investment banker Pat Turpin of USBX Advisory Services LLC summarized it this way in a St. Louis Post-Dispatch article: "If this was a baseball game, we're really only in the middle of the first inning."

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