

UNDERSTANDING PERSONALIZED NUTRITION

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Watson

The food industry was abuzz last fall when the Campbell Soup Company announced plans to invest \$32 million in a nutrition-focused startup meal delivery service that uses results of an at-home test kit to create customized meal plans that take into account the person's biology, metabolism, and health goals. It's part of a growing trend towards personalized nutrition that is sweeping through the wellness industry.

“CONSUMERS ARE TAKING A MORE ACTIVE ROLE IN THEIR HEALTHCARE...”

Nielsen, 2016

Americans have long yearned to adopt healthier lifestyles. Nielsen's 2014 report, "Health and Wellness in America¹," found this to be one of the top aspirations of American adults. We're now living longer than ever before, leading to a general aging of the population. Data from the U.S. Center for Disease Control also shows a rise in the rates of chronic conditions like heart disease² and Type 2 diabetes³. As a result, there is growing interest in healthier lifestyle habits and behavior modification that can help prevent and manage these issues. Consumers have come to see the connection between the different aspects of their lives and lifestyle choices. Eating a healthy diet is linked in consumers' minds to healthy aging, healthy digestion, improved cognitive abilities, and reduced stress.

"Consumers are taking a more active role in their healthcare, which includes following proper nutrition guidelines to prevent or manage many health issues," Nielsen said in their 2016 report, "What's in Our Foods and on Our Minds⁴." That study found that 70 percent of respondents in the survey say they actively make dietary choices to help prevent health conditions such as obesity, diabetes, high cholesterol, and hypertension.

WHAT IS PERSONALIZED NUTRITION?

Growing consumer interest in health and

nutrition topics has paved the way for both scientists and food manufacturers to make more information available. Unfortunately, the wealth of nutrition information available these days

can sometimes be more frustrating than helpful. With so much dietary advice out there, it can be daunting to try to figure out what works for you and your individual concerns, genetics, test results, and goals. Should you eat more protein? Less fat? Fewer carbohydrates? More plant-based foods? And on and on. Instead of helping you live a healthier lifestyle, this confusion can instead cause added stress, defeating the purpose of overhauling your diet.

THERE IS NO ONE SIZE FITS ALL WHEN IT COMES EATING A HEALTHY DIET.

The fact is, everyone is different. Drastically cutting down on carbs can help one person lose weight while triggering unexpected symptoms in another person. As much as we'd all love to find "the answer," there is no one size fits all when it comes eating a healthy diet. In one study published in the journal *Cell*⁵, researchers found that the same meal caused a wide variability in glucose levels in different individuals. Another study, from *Nutrition Journal*⁶, found that using genetic information to personalize a nutrition plan improved outcomes — including reduced blood sugar levels, healthier body mass index, and improved patient compliance.



Personalized nutrition is food that meets a consumer's needs depending on their unique biological markers and metrics, age, physical activity, lifestyle, and health concerns. This can range from food products designed to meet various specific nutrition needs — such as foods that are high in protein, low in fat, or fortified with specific nutrients — or it can mean allowing customers to create their own product by selecting ingredients from a list of options.

It's no big surprise that receiving customized nutrition advice, which addresses the unique nutrient needs of the individual, leads people to make "bigger and more appropriate changes to their diets" than generic advice like "eat five servings a day of fruits and vegetables." And that's exactly what a study called Food4Me⁷, conducted by the Human Nutrition Research Centre at Newcastle University, found.



THE BUSINESS BENEFITS OF PERSONALIZATION

As consumer interest in health and wellness becomes more personal, consumers are discovering how different foods and ingredients may make them feel or affect their overall health. The emerging personalized nutrition market provides ample opportunities for food and beverage companies to add value for their customers.

“The entire food industry is being transformed by the fusion of food, well-being, and technology,” Denise Morrison, president and chief executive officer of Campbell Soup, said in a recent press release⁸. As consumers increasingly turn to individually tailored diets, market research companies like New Nutrition Business, London, and Innova Market Insights, Arnhem, Netherlands, point to personalized nutrition as a growth opportunity for the entire food and beverage industry.

**“PERSONALIZATION IS ABOUT CONSUMERS
TAKING BACK CONTROL,”**

– *Julian Mellentin, director of New Nutrition Business*

“Personalization is about consumers taking back control,” Julian Mellentin, director of New Nutrition Business, told Food Business News⁹. “They want to feel more empowered and confident to create their own healthy eating patterns. It goes hand-in-hand with growing awareness that diet is a personal matter — and it’s another stage in the long, slow death of ‘one-size-fits-all’ dietary recommendations.”

Fortified and functional foods have been growing in popularity for more than a few years. In 2014, the Institute of Food Technologists¹⁰ (IFT) found that 90 percent of US adults were

eating more nutrients, vitamins, minerals, herbs, and botanicals. Furthermore, 80 percent believed that eating functional foods could help delay onset or prevent chronic illnesses like hypertension, heart disease, type 2 diabetes, osteoporosis, and other diseases. Giving customers the tools to choose foods that contain those ingredients and supplements that meet their own unique needs is a golden opportunity for the food industry.

All sorts of food manufacturers are getting in on this trend, offering products that range from fortified foods targeted for certain groups (women, teens, people over 55, etc.) to products that they can customize through an interactive website, adding the ingredients they want, and have shipped to their door. MyCerealMix.com¹¹, is a good example of the latter. Customers can select ingredients on their website to compose their own, customized cereal. YouBars.com¹² allows the consumer to fashion their own nutrition bar online by choosing their ingredients.

“Customized products offer the consumer the benefit of products that fit their needs. No longer will a consumer have to search for a product that may come close,” wrote Kansas State University professors Janis J. Crow and James Shanteau in *Online Consumer Psychology: Understanding and Influencing Consumer Behavior in the Virtual World*¹³. “In addition, once a consumer has customized his or her product, the process builds in a repeat purchase.” By offering personalized solutions, companies can raise engagement and build customer loyalty.

MEETING CONSUMER NEEDS WITH PERSONALIZED OPTIONS

The level of personalization in food products today ranges from basic differentiation (i.e. male/female or by age group) to highly personalized products that use genome, microbiome, and body metrics to develop unique mixes of macro and micronutrients. Between these extremes, there is a vast array of fortified foods, supplements, and other products with varying levels of personalization.

Food and beverage companies that want to take advantage of these new technologies to deliver personalized nutrition to their customers can choose from a wide range of delivery forms, from powders, caplets, and edible films to fortified food products.



WHAT'S NEXT?

The secret to success in the personalized nutrition space likely lies in the power of cleverly devised collaborations between established science, technology, and manufacturing businesses and start-ups devoted to developing and leveraging the market. Campbell's involvement with Habit is one example, but they're not the only ones jumping on this trend. Nestlé, for instance, has partnered with Samsung to conduct research on how digital sensor technologies could be used to provide new insights into healthy living. Together the two companies are creating a digital health platform to provide individualized nutrition, lifestyle, and fitness recommendations. Expect to see many more such collaborations between now and 2020.

The industry's future success is pinned on an overall pivot from generic approaches to health

and wellness to an approach that is highly personalized and anchored in an individual's biology. Personalized advice will go further than generic rules of nutrition towards actually changing behavior, helping consumers achieve better health, and creating engaged and loyal customers who will come back again and again to companies that continue to improve their understanding of that customers' unique needs and preferences. In this way, forward-thinking companies can both transform the market and promote well-being at the same.

If you're interested in learning more about how Watson works with food and supplement companies to provide their customers with the fortified and individualized products they need and want, click here to see our complete Specialty Nutrient line.

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