Consumer insights into the benefits of dietary supplements – report of a survey

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ABSTRACT
Nutrition should be a major tool for disease prevention. Unfortunately, poor diet choices greatly increase the risks for many diseases, and the current healthcare system pays scant attention to nutrition. Findings from NHANES suggest that inadequate intakes of many nutrients exist among U.S. adults. In this regard, dietary supplements may be used to promote health and fill nutrient gaps. In fact, according a recent survey, more than two-thirds of American adults take dietary supplements and that users of supplements are more likely than non-users to make healthy dietary choices and adopt other healthy lifestyle habits.

Effects of supplement use have been studied in a cohort of consumers with documented long-term (>20 years) use of multiple supplements. Previous reports found that this cohort had improved levels of disease-risk biomarkers and reduced prevalence of diseases such as diabetes and coronary heart disease as compared to non-supplement users or multivitamin-only users from the NHANES database. Here we report the results of a survey of this cohort examining their opinions on the role of supplements in promoting health.

The online survey collected supplement usage pattern and measured consumer experience with five dietary supplements: multivitamin; resveratrol/polyphenol-rich supplement (RPS); vitamin B complex; herbal supplement containing alfalfa leaf powder; and omega-3 supplement. The online survey was sent to 3,426 U.S. consumers and of whom 907 responded (87% females). Regional distribution of the responders was as follows: 36% Midwest, 25% South, 21% Northeast and 19% West. Of all the responders, 55% were between 60 – 79 years old. More than two-thirds (69%) of responders indicated that they have been using supplements for more than 20 years. The primary reasons for using supplements were health from within or overall health (49%) and filling nutrient gaps (12%). The responses related to supplement usage experience were grouped by keywords as related to health benefits. The main benefits for multivitamins: energy (48.1%), overall health (19.5%), immunity (19.0%), well-being (14.4%); RPS: energy (26.1%), skin health (7.8%), anti-inflammation (7.5%), vision health (7.4%), B-Complex: energy (42.3%), stress relief (23.9%), calm (21.2%); Alfalfa: allergy relief (56.6%), arthritis relief (17.1%), anti-inflammation (12.7%); and Omega-3: anti-inflammation (20.6%), heart health (17.3%), joint health (14.5%).

These results indicated that long-term supplement use was driven by perceived benefits. Some perceived benefits suggest areas for future research.

BACKGROUND AND OBJECTIVES
Findings from a previous cross-sectional study in a cohort of consumers with documented long-term (>20 years) use of multiple supplements indicated that the health status of this cohort was significantly better than non-supplement or multivitamin-only users surveyed by the National Health and Nutrition Examination Survey (NHANES) [Block et al., Nutr. J. 6:30, 2007]. Specifically, this cohort had improved levels of disease-risk biomarkers and reduced prevalence of diseases such as diabetes and coronary heart disease.

The objective of the current study was to survey this cohort of long-term supplement users regarding their opinions on the role of supplements in promoting health.

METHODS
Online survey link was sent to a pool of 3,426 long-term supplement users residing in four general geographic regions within the continental USA via email. There were 907 recipients who responded to the invitation and among them, more than 700 subsequently completed the 13-item survey regarding their opinions and knowledge of five supplements.

The supplements surveyed were: multivitamin; resveratrol/polyphenol-rich formulation (RPS); vitamin B complex; herbal extract of alfalfa leaves and omega-3 EPA+DHA.

The respondents were asked about their personal experience on the benefits of these five supplements. The responses were grouped into keywords and the top 10 keywords for each supplements were used to illustrate consumers perception of the health benefits associated with these supplements.

RESULTS

CONCLUSIONS
• The predominant age of the participants was between 60-69 years (Fig. 1).
• More than 99% of the respondents were regular supplement users (Fig. 3) and about 70% of them were long-term users (>20 years, Fig. 4).
• The main reason of taking supplements were for general health and filling nutrient gaps (Fig. 5).
• The main reported benefits for multivitamin, resveratrol/polyphenol supplement, and B-complex were energy (Fig. 6A, 6B, and 6D).
• The reported benefits for omega-3 supplement were anti-inflammation, heart health, and joint health (Fig. 6C).
• The benefits associated with alfalfa leaf extract supplement were allergy and arthritis relief, anti-inflammation, and joint health (Fig. 6E).
• The findings suggest that long-term supplement use may be driven by perceived benefits.
• Some perceived benefits suggest areas of future research.