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Reaching Out: Dietary Bioactive Components in Foods and Supplements



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A multistate, interdisciplinary team developed science-based outreach and educational materials for dietitians, oncology nurses, other health professionals, and consumers on health benefits of dietary bioactive components in foods and supplements.

Today, the two fastest-growing enterprises in the food industry focus on foods with added value and on dietary supplements. Since 1990, these markets have grown to over \$20 billion. Much of the research has focused on single bioactive components that can be extracted, formed into tablets, and used as dietary supplements. However, a diet high in vegetables may offer greater health benefits than individual supplements alone can provide. In addition to the nutritional value, value-added foods may also offer protection against many chronic diseases. Consumer education can address these growing markets by focusing on how the health benefits of whole foods differ from dietary supplements, and how to

gain full effectiveness of bioactive components through dietary choices.

This project brings together top researchers and educators from three land-grant universities (Illinois, Missouri, and Purdue) to investigate interactions between bioactive components in foods and their effects on health. The group studied four foods (soy, berries, broccoli, and tomatoes) and launched a multistate Web site, *Research into Food and Health* (<http://web.aces.uiuc.edu/ifafs>), to promote communication among multidisciplinary research teams and provide information about dietary bioactive components in foods to consumers through the “*Learning Center*.”

In addition, the team assessed oncology nurses’ knowledge of value-added foods and supplements and created outreach materials for further use in transferring knowledge from the health professionals to consumers.

ONLINE EDUCATION OF HEALTH PROFESSIONALS

The team developed two online programs for registered dietitians to obtain information and educational materials about value-added foods and dietary supplements. The first program, *Foods and Cardiovascular Health*, includes information on how dietary bioactive components in soy, tomatoes, oats, cholesterol-lowering margarines, and fatty fish may promote cardiovascular health.

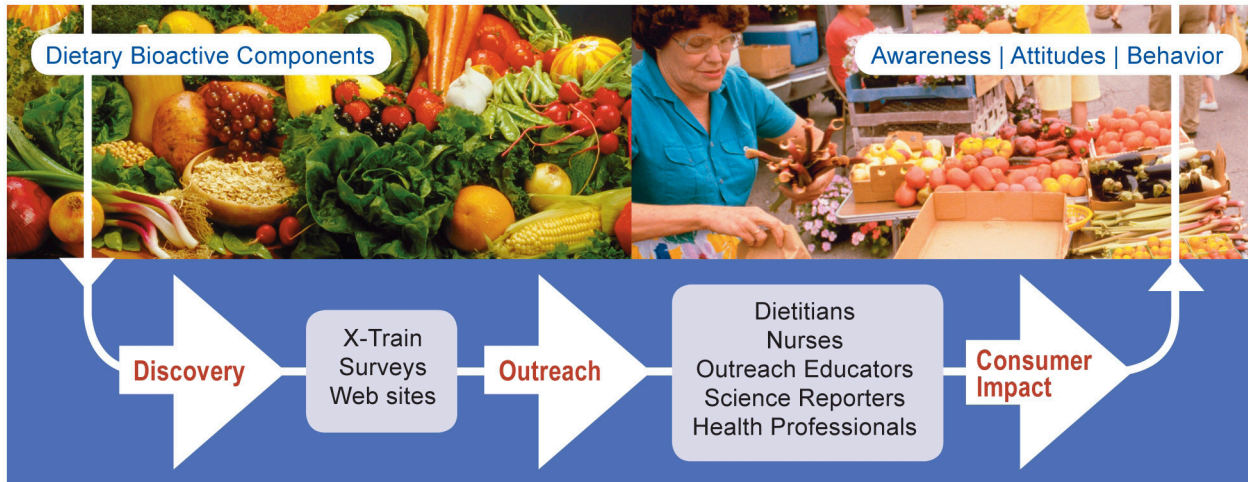


Photo and Figure Credit - Jason Lindsey

Figure 1. A flow chart illustrating the path from discovery of the health benefits of dietary bioactive components in the laboratory via the health professionals and other educators to consumers.

A second program, *Foods and Cancer Prevention*, includes information on how dietary bioactive components of soy, tomatoes, berries, broccoli, and tea may protect against cancer.

Each program allows dietitians to earn continuing education credits issued through an agreement with the American Dietetic Association (<http://xtrain.cfs.purdue.edu>). After completing a program, dietitians can access a media kit for their use in consumer education. These programs are also available to educators, pharmacists, physicians, nurses, food technologists, cooperative extension agents, and

other health professionals.

OUTREACH TO ONCOLOGY NURSES

Nutrition is an essential component of cancer therapy. However, little nutritional information, especially knowledge on dietary bioactive components of food and supplements, is available to health professionals, specifically nurses. The team surveyed more than 500 nurses in Illinois, Missouri, and Indiana to determine how they obtain knowledge regarding dietary bioactive components of foods and supplements. The survey revealed this nutritional knowledge is lacking among oncology nurses.

An online program and a media kit now contains information about dietary bioactive components in foods and supplements that will aid these health professionals in communicating information to their patients.

IMPACT

This project moves beyond basic research to address the key individuals who disseminate information on the benefits of specific foods to the public. Promoting education and outreach programs ensures that the health benefits of dietary bioactive components reaches consumers.



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