

VioScreen: A web-based self-administered dietary habits questionnaire that provides an efficient and thorough assessment of critical dietary information about a patient or research subject

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Most primary healthcare practitioners recognize the important relationship among nutrition and health. Few incorporate dietary counseling into routine practice. The facilitation of lifestyle behavior modification during primary care visits is limited due to the lack of time and expertise. Technological advances can facilitate assessment of dietary intakes as well as behavioral tracking to produce improved health outcomes. VioScreen, an innovative web-based food frequency questionnaire that uses complex branching technology and 1,200 food portion images, enables healthcare professionals to quickly and accurately assess a patient's diet. Results, which are immediately available, include a food pattern analysis and a list of foods and nutrients consumed, and the "top foods" that contribute the most to key nutrients, i.e. top saturated fat foods. The use of this technology facilitates the dietary intakes assessment allowing more time to spend on individualized counseling than on capturing dietary intake. VioScreen was evaluated and determined very accurate through a study with 74 subjects conducted at The Ohio State University. VioScreen correlations were substantially higher than reported for many other paper FFQs used in major studies, being at or above 0.80 for most macronutrients (0.90 alcohol, 0.84 saturated fat, 0.82 fat, 0.79 carbohydrate) and 0.67 for protein. All subjects rated VioScreen as easy to use and 99% would complete the questionnaire if asked by a doctor. VioScreen enables the delivery of individually tailored diet counseling in the context of standard primary care. The presentation will discuss the technology and successful clinical implementation examples.

Biography

Rick Weiss is the President of Viocare, Inc., which he founded 20 years ago. Viocare develops innovative and scientifically-validated dietary and physical activity assessment and behavioral change systems for researchers, clinicians, and wellness counselors. Mr. Weiss has been the Principal Investigator on 21 National Institutes of Health grants and contracts, valued at over \$10 million. These projects have formed the basis of Viocare's product line including a wellness program for counselors, VioWell and an electronic dietary history questionnaire, VioScreen. Viocare's systems have been used by major research and clinical organizations such as Mayo Clinic, Brigham and Women's Hospital, Eli Lilly, FDA, USDA, and NIH. Under a current NIH award, he is developing a mobile food intake app that uses image recognition to automatically identify the food and portion size to generate an accurate but low burden method for dietary intake assessment. He has presented at major healthcare conferences (Obesity Society, ICDAM, ISBNPA, mHealth) and published in peer review journals about new techniques for dietary assessments. He started his career as an Applied Researcher at Bell Laboratories after receiving a Bachelor's degree in Electrical Engineering and Math with honors from Carnegie Mellon University and a Master's degree in Electrical Engineering and Computer Science from Princeton University.

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