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Examining dietary patterns among adults and infants in Hawaii and the Continental United States

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Traditionally, the assessment of a diet's relation to disease risk focused on the influence of individual or small groups of nutrients and foods. Within the past decade, the examination of dietary intake has broadened to include dietary patterns to capture the complexity of foods and beverages consumed and, as a result, better assess the diet-disease relation.[(1)] Dietary patterns better assess the relationship between dietary intake and disease, and address total diet which better reflects dietary practices and the numerous and multifaceted combinations with which foods can be consumed. Analyses that consider dietary patterns hold promise for better translating research to food-based dietary guidelines. The Dietary Patterns Methods Project used an index-based approach to dietary patterns recognizing this method could address the complexity of diet and the multicollinearity between dietary components, and had the advantage of being readily translated into dietary recommendations.[(2)] These indices included the most-commonly used indices in the USA: the Mediterranean Diet Score, Healthy Eating Index (HEI), Alternate HEI, and Dietary Approaches to Stop Hypertension (DASH) Scores. Parallel analyses were completed within three cohorts, including the NIH-AARP Diet and Health Study, the Multi-Ethnic Cohort, and the Women's Health Initiative-Observational Study. All four diet quality indices examined showed similar associations with all-cause and cause-specific mortality: higher diet quality was consistently associated with an 11-28% reduced risk of death due to all causes. These analyses provided evidence that harmonization across diet quality indices can be accomplished. However, the majority of the scores fell short of the maximum attainable values. For infants 3-12 months old there is a global metric, the Minimum Dietary Diversity (MDD) score, developed by the World Health Organization (WHO).[(3)] An example of its use was applied to infants 3-12 months old living in Oahu, Hawaii to provide an indication of complementary feeding practices and healthfulness of the infant diet. The majority of the care takers noted the first food was poi (steamed mashed taro with water) or infant cereal, however overall approximately 25% of infants 6-12 months of age met the recommended score of the MDD. These results illuminate opportunities for improvement. These indices or dietary patterns are primarily total diet indices and have shown fairly consistent associations with regard to influencing health and disease and are part of the 2020 Dietary Guidelines for Americans Advisory Committee report and the most recent Dietary Guidelines for Americans. This presentation emphasized the merits of using an index-based approach to dietary patterns using data from projects in the United States and across the life span.

References

1. Jacobs DR Jr. (2014) *J Nutr*. **144**: 543S–546S
2. Liese AD, Krebs-Smith SM, Subar A *et al*. (2015) *J Nutr*. **145**:393–402
3. Fialkowski MK, Ng-Osorio J, Kai J *et al*. (2020) *Hawaii J Health Soc Welf*. **79**. NO5, Supplement 1.
4. Dietary Guidelines Advisory Committee. 2020. U.S. Department of Agriculture, Agricultural Research Service, Washington, DC.