with replacing foods with a high environmental burden. Statistical analyses using the R package included ANOVA and Pearson’s Chi-squared test for comparing dietary intake and environmental footprint values by tertiles of MED adherence.

**Results:** The highest tertile of adherence to the MED [average score=5.4±0.07, range 5-7] was associated with the lowest greenhouse gas emissions (GHGe) and land use, and higher water use. Meat consumption was associated with the greatest contribution [27%] to land use, dairy contributed the most [25%] to GHGe, and fruits and vegetables contributed the most to water use [30%]. Higher adherence to the MED was associated with 30% lower GHGe. Changes in the diet indicate GHGe reductions [-50—98%] following replacement of high environmental burden food items (eg, replacing beef with chickpeas).

**Conclusion:** Animal protein constitutes the largest component of land use and GHGe, while fruits and vegetables are associated with the largest amount of water use. High adherence to MED was related to a reduction of land use and GHGe. Replacing animal protein with plant-based protein may constitute a flexible strategy in reducing GHGe and land use.

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**Virtual Vegan Culinary Medicine Randomized Crossover Trial Improves Diet Quality in Patients at Risk for Heart Disease**

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**Background:** Dietary risk factors contribute to over half of all deaths resulting from cardiovascular disease (CVD), the leading cause of mortality and morbidity worldwide. Relationships between diet intake and CVD can be assessed by diet quality indices (DQIs). While higher diet quality is typically observed in vegetarian diets compared to standard omnivorous patterns, improving diet quality among communities remains challenging. We hypothesized a plant-based culinary medicine (CM) intervention may enhance adoption of a healthful dietary pattern.

**Objective:** To determine changes in diet quality in clinical patients after participating in a vegan CM intervention.

**Study Design, Settings, Participants:** In a randomized crossover clinical trial, adults at risk for CVD recruited from medical clinics were assigned to follow two vegan diet patterns either high (4 tablespoons/day) or low (<1 teaspoon/day) in extra virgin olive oil (EVOO) for 4 weeks each, separated by a 1-week washout period. Participants were asked to complete 5-7 consecutive days of dietary recalls assessed by the Automated Self-Administered 24-hour Dietary Assessment Tool (ASA24®) at baseline and during each diet period. Weekly virtual CM group cooking classes coincided with both diet phases.

**Measurable Outcome/Analysis:** Diet recalls were analyzed to confirm diet compliance and calculate Whole Plant Food Density (WPFD) DQI and subcomponents. Paired t-tests compared differences from baseline and between diets.

**Results:** Of 40 participants (75% female, BMI 32 +7 kg/m², 64±8 years mean+sd), WPFD increased from 2.93+1.48 cup/oz-equivalents per 1000 kcal pre-intervention to 4.96+1.37 and 6.41+2.05 cup/oz-equivalents per 1000 kcal during the high and low EVOO phases, respectively (p<0.0001). All subcomponents (whole grains, legumes, whole fruit, vegetables, and nuts/seeds) significantly increased compared to baseline (p<0.001).

**Conclusion:** Participation in a virtual vegan CM intervention increased diet quality through greater intake of whole plant foods. Enhanced diet quality may reduce CVD risk factors (reported elsewhere), which correlate to measures of WPFD. Beneficial findings warrant further research on the use of WPFD as a DQI and CM for supporting nutritional adherence in diverse populations.

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**What’s Your Weekly Special? Impact of the COVID-19 Pandemic on Grocery Store Promotions**

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**Background:** Grocery store sales circulars are used to advertise products and promote seasonal sales. Further, food marketing has been shown to influence eating behavior. Time of year and current events influence which items stores include in their sales circulars, particularly on the front page. Dietary habits were impacted by the COVID-19 pandemic and shutdown. What is unclear is how the COVID-19 pandemic affected item promotion at the grocery store.

**Objective:** The goal of this study was to identify changes in food promotions seen during the COVID-19 pandemic by analyzing sales circulars from a prominent midwestern grocery store chain.

**Study, Design, Participants:** Two researchers analyzed the front page of sales circulars over a two-year period, including one year prior to the start of the COVID-19 pandemic through the first year of the pandemic to assess potential changes in food being promoted. All items on page one of each circular were coded. Throughout the coding process, the researchers met regularly to clarify and find consensus on codes.

**Measurable Outcomes/Analysis:** Items were classified in several ways including timing in relation to the COVID-19 shut-down, MyPlate group, and consumption category (eg, entrée, beverage). Simple descriptive statistics and the chi-square statistical test were used to analyze the data.

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