**To all Reviewers:**

We made some substantial changes to the analysis at the request of both reviewers and we would like to summarize those large changes here before discussing them in greater detail in the responses below:

1. We split the final sample into *training* and *testing* subsamples that were used for the two phases of the analysis (training dietary patterns extraction models and testing the dietary patterns using survival analysis)
2. We added sequential adjustment. We now have three sets of covariates that we adjust for including an unadjusted model.

Given these requests and changes to the analysis, the results section was significantly updated.

**Reviewer 1**  
This study investigated the association of various dietary patterns with mortality among cancer survivors from NHANES between 1999-2018. Dietary patterns associated with food insecurity and several other factors were extracted from the 2,493 cancer survivors in the study from 24-hour dietary recalls and then used in the same population to determine their association with mortality.

**Comment**: Ideally, the analyses with mortality should be done in a separate population as using the same population is likely to bias the results. A discussion of this and the potential implications of using the same study population should be included in the manuscript.

**Response**: We thank the reviewer for the thoughtful suggestion. We agree with the reviewer and originally, we would have liked to perform analysis on separate subsets (one subset for training the models and generating the dietary patterns and a separate subset for performing the survival analysis). We decided to not go along with the idea originally given that the sample size of cancer survivors is quite small in the NHANES dataset. Nevertheless, given the suggestion by this reviewer, we amended the analysis and did as we just described and pursued and out-of-sample validation analysis. We split the original sample into 30%-70% subsets and performed the training models and testing models separately on those subsets, respectively. Please note that this changed the results and, thus, the results section has been significantly modified. However, the overall conclusions have not changed. In the methods we have indicated this change in the analysis in lines 133-135 and 176-177. We also changed Figure 1 to make it clearer to readers how the subsets are divided and used for each analysis. We also note that because of the change in the methods resulting in a smaller testing sample size, we ran into significant issues with optimizer convergence when fitting models for cardiovascular disease mortality given the small counts of observed deaths from CVD. Thus, we removed all analyses involving deaths from CVD from the analysis given that we were no longer able to analyze those data comprehensively as with all-cause and cancer-specific mortality.  
  
**Comment**: The food-insecure cancer survivors had higher levels of numerous characteristics know to affect health including being non-white, living under the poverty level, being current smokers, and having more comorbidities. While all these factors were adjusted for in the statistical models, the possibility of confounding by these and related factors that were not controlled for remains. Factors such as the type of cancer and stage at diagnosis, for which information may not be available, could also confound the results. The authors should make efforts to address the potential of residual confounding and show unadjusted and adjusted results. That some potential confounders could not be adjusted for should be noted as a limitation.

**Response**: We thank the reviewer for this suggestion. We remind the reviewer that we adjusted for as many potential confounders as we could and there was a great deal of thought that went into the selection of the covariates to adjust for, using our team’s combined expertise on nutrition, food insecurity, and the social determinants of health. This is clearly indicated in the methods and results sections. We cannot adjust for unmeasured confounders since they are unobserved. We also remind the reviewer that clinical staging data are not available in the NHANES dataset. We have adjusted our analysis so that results for two other models (one that is unadjusted for any other confounders, which we call the *null model*, and a second that adjusted for a basic set of confounders—namely age, sex, and race, that we call the *basic model*,—are now included. The methods section (Statistical Analysis section—lines 212-219) has been updated to account for this and the results the reviewer requests are now presented in the updated Table 4 and Supplementary Table 1. We also remind the reviewer that our manuscript already makes mention of residual or unmeasured confounding as a limitation of the analysis: lines 495-497. We have also added another sentence talking about the clinical staging data specifically and how that may have confounded the results (lines 497-499).  
  
**Comment**: The authors conclude that their findings that food insecurity may be associated with higher mortality in cancer survivors should motivate efforts to address this in cancer clinics. However, there is no evidence that the influence of food insecurity on mortality is any different in cancer survivors than for people who have never had cancer. This would require including the latter group in the analyses. The discussion of the potential policy implications of the findings should be tempered and the absence of a cancer survivor – cancer-free comparison acknowledged.  
  
**Comment**: Given all the issues discussed above, the title of the manuscript should be revised to reflect more of the nature of the study rather than a declaration of the conclusion as it is now. In addition, “prognosis” should be replaced by “mortality” because that was the only outcome investigated.