1. Full Title: Weight change among self-reported dieters and non-dieters in the ARIC study
   Abbreviated Title (length 26): Dieting and weight change

2. Writing Group:
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3. Timeline:
   The analyses have been completed.

4. Rationale:
   The literature of weight change has been plagued by the issue of whether or not the weight change is intentional (1). Intention to lose weight may explain why studies have shown that weight loss was associated with an increased mortality (2,4). In those studies, weight loss might be associated with pre-existing illness responsible for a higher mortality, especially in the early follow-up period.

   There is a high prevalence of intention to lose weight or dieting in the United States (5). Although our knowledge of weight change has been incomplete and limited, much less is known about the role of dieting on weight change. Among the few studies of dieting and weight change that have been conducted, the methodology of assessing weight change has been inconsistent (6-8). The inconsistency of the methodology may explain why results have been inconsistent (6-8). Among these studies, only one examined the association among African Americans (6-8). The purpose of this study was to examine the annual weight change over a 6-year period in self-reported dieters and non-dieters across ethnicity-gender groups who were participants of the ARIC Study. Results from this study may influence the importance of including intention to lose weight as a potential confounder or effect modifier on the association between weight change and health outcomes.
5. Hypothesis:
Mean weight change is different in self-reported dieters and in non-dieters.

6. Design:
Dieting (intention to lose weight using a special diet) was assessed by first asking “Are you currently on a special diet? Yes/no. Participants who answered affirmatively were asked to identify the type of diet from a checklist (weight loss, low salt, diabetic, low cholesterol, weight gain, and other diet). Dieters were defined as participants who chose “weight loss” from the checklist; those who chose other types were excluded. Weight change was calculated as the slope of the simple linear regression between weight and date of examination.

Crude and adjusted mean weight change among dieters and non-dieters were calculated. Covariates included baseline age, study center, BMI, height, WHR, smoking status, educational level, and physical activity. A quadratic term for age was tested in all groups but was not significant, and therefore not included in models. Results were compared before and after exclusions of diabetic subjects due to the possibility that weight change could be different in diabetics (9).

A general linear model was used for all analyses (10). Analyses were performed using SAS statistical software (PROC GLM and REG) (11).

7. Data Requirement:
We used data from the ARIC baseline, visit 2 and visit 3.

Identification information:
  Participant identification number
  Visit date
  ARIC field center

Demographics:
  Ethnicity
  Gender
  Date of birth
  Age

Anthropometrics:
  Weight
  Height
  Waist circumference
  Hip circumference

Others (baseline only):
  Smoking
  Physical activity
  Education
8. Manuscript Requests with Overlap:
Proposal #598 "The putative determinants of weight change"
This manuscript is a subset of manuscript #598. We decided to examine self-reported
dieting as a predictor of weight change first because if we find that dieting is associated
with weight loss than we will examine other predictors of weight change stratified by
dieting status. The association between self-reported dieting and weight change is very
important and it is appropriate to examine the association in a separate manuscript.

REFERENCES:
1. French S, Jeffery R. Consequences of dieting to lose weight: effects on physical and
2. Williamson D, Panuk E, Thun M, Flanders D, Byers T, Heath C. Prospective study of
intentional weight loss and mortality in never-smoking overweight
3. Williamson D, Panuk E, Thun M, Flander E D, Byers T, Heath C. Prospective study
of intentional weight loss and mortality in overweight men aged 40-64
4. French S, Folsom A, Jeffery R, Williamson D. Prospective study of intentionality of
weight loss and mortality in older women: The Iowa Women's Health
knowledge and baseline data for the weight-loss objectives. Pub Health
6. Coakley E, Rimm E, Colditz G, Kawachi I, Willett W. Predictors of weight change in
men: results from the Health Professionals Follow-Up Study. Int J
weight loss in young adults: the CARDIA study. Int J Obesity
change over two years among a population of working adults: the
insulin concentration inversely associated with rate of weight gain? Int J
10. Kleinbaum D, Kupper L, Muller K. Applied Regression Analysis and Other