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The Mediterranean Diet and Low-Fat Diet, with and without Statin Drug Therapy, on Serum Lipids in Adults at High-Risk and with Existing Cardiovascular Disease: A Meta-Analysis

Marisa L. Creatura
University of Connecticut - Storrs, marisa.creatura@uconn.edu

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Marisa Lynn Creatura

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Presented by

Marisa L. Creatura, BS, RD

Major Advisor_____

Tricia Leahey, PhD

Associate Advisor_____

Valerie Duffy, PhD, RD

Associate Advisor_____

Bruce Blanchard, PhD

University of Connecticut
2017

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Introduction

Cardiovascular diseases (CVDs) remain the number one cause of death worldwide, with yearly deaths expected to increase from 17.3 to 23.6 million by 2030[1]. Medical expenses associated with the treatment of CVD place a significant burden on the United States healthcare system. In 2010, CVD medication costs totaled $14.6 billion[2]. Poor compliance with CVD medication has gained attention as a driving factor of increased medical costs and preventable CVD-related deaths. Adherence to long-term prescribed CVD medications is as low as 50%[3-5]. Statin drugs, a group of lipid-lowering medication, are the most commonly prescribed CVD medication worldwide. Approximately 71% of individuals with CVD and 48% of individuals with hypercholesterolemia use cholesterol-lowering medication, with 93% of these medications being statins[6]. The monthly cost of statins can range from $4 to $600, depending on type, dose, and if a generic version is available[7]. Further, statin use can pose significant dose-dependent side effects. These include myalgia, as the most common side effect, as well as acute liver injury, hepatic steatosis, increased risk for development of Type II Diabetes, and cognitive impairments[8]. Side effects associated with statins are among the most common reasons for patients ceasing drug therapy[9].

Currently, there is no optimal set of guidelines for prescribing statin drug therapy. The 2013 American College of Cardiology/American Heart Association (ACC/AHA) recommends initiation of statin treatment in patients with a 10-year global CVD-risk of 10% or greater, which 10-year risk being based on age, gender, ethnicity, blood pressure, current treatment with antihypertensive medication, and presence of diabetes or smoking behaviors[10]. The 2016 United States Prevention Services Task Force (USPSTF) guidelines also recommend a

10-year global CVD-risk of 10% or greater, as well as patients having one or more CVD risk factor (hypertension, dyslipidemia, smoking, diabetes). The gap in these conflicting guidelines could leave 9.3 million Americans untreated if one was fully adopted over the other[11]. Thus, current pharmacological therapies used for the prevention and treatment of CVD are costly, burdensome, have associated health risks, and current guidelines could leave patients untreated.

Implementing lifestyle therapies, including dietary modification, could improve CVD-outcomes, possibly reduce burden associated with medication adherence, and contribute to a healthier aging population. Current recommendations for treatment and prevention of CVD include statin therapy and adoption of a low-fat diet, such as the National Cholesterol Education Program/American Heart Association Step I or Step II diets. These dietary patterns recommend a reduction of total fat (<30% of calories), saturated fat (10% and <7% total calories), and dietary cholesterol (300 and 200mg daily). This recommendation is consistent with evidence that a reduction in exogenous fatty acids will, in turn, reduce the need to clear chylomicrons during lipoprotein metabolism, since higher chylomicron levels may promote atherogenesis[12]. Therefore, low-fat diets work by controlling exogenous sources of fats, and are often paired with statin drugs, which control cholesterol at an endogenous level.

Statin drugs, also known as HMG-CoA reductase inhibitors, gained popularity in the 1990's, as knowledge of "good" and "bad" cholesterol became more widespread. Statin drugs became standard treatment for high dyslipidemia following publication of the Scandinavian Simvastatin Survival Study (4S study) in 1994. This secondary prevention, randomized, double blind, placebo-control trial investigated long-term use of simvastatin to reduce total mortality and coronary events in 4444 post-myocardial infraction (MI) and angina pectoris

patients with total cholesterol levels between 212 and 309mg/dL. The trial found a 42% reduction in cardiac mortality, as well as 38% reduction in LDL and 28% reduction in total cholesterol over the 6-year follow-up period[13]. This landmark trial contributed a great body of support for statins in preventing cardiovascular death through lowering total and LDL cholesterol levels.

In the same year, French cardiologist Dr. Michel de Lorgeril published his findings of the Lyon Diet Heart Study. Similarly to the 4S Study, the Lyon Diet Heart Study was a randomized, secondary prevention trial in 605 post-MI patients. The study compared the effects of an alpha-linolenic acid-rich Mediterranean diet (n=302) to a typical French diet (n=303), which is similar to Western diets in fat quality and content. The study evaluated differences in primary, secondary and tertiary endpoints, such as cardiac deaths, non-fatal MI, and overall mentality over a planned 5-year study period. The trial was halted after 27 months due to the Mediterranean diet group having a 50 to 70% lower risk of recurrent cardiac events compared to the control. This study was the first to provide evidence that questioned the lipid hypothesis due to finding no difference in serum lipids from baseline in the Mediterranean diet group[14].

The developing body of literature on the Mediterranean diet over the past 60 years has challenged the low-fat diet, showing more favorable reductions in serum lipids, as well as mortality risk, with the adoption of a Mediterranean diet. The Mediterranean Diet was first recognized for its cardioprotective benefits by Minnesota physiologist Ancel Keys in the Seven Countries Study. Keys found significantly lower rates of cardiovascular disease in countries surrounding the Mediterranean Sea[15]. The Mediterranean Diet emphasizes the following: high consumption of locally sourced plant-based foods, such as fruits, vegetables, whole grain breads, nuts, and legumes; olive oil as the main source of dietary fat;

moderate red wine consumption (one drink each day for women, two drinks each day for men); twice weekly fish consumption; low to moderate intake of dairy; and up to seven eggs per week; limited consumption of red and processed meats to once or twice per month.

Since it's discovery, the beneficial role of the Mediterranean Diet has been largely studied. Both short- and long-term benefits of the diet have been established. One of the most notable studies to date is the Prevención con la Dieta Mediterránea (PREDIMED) trial, which investigated the role of the Mediterranean diet in primary prevention of Cardiovascular Disease. The study evaluated the effects in subjects randomized to a Mediterranean diet supplemented with olive oil or mixed nuts, or a low-fat diet. The PREDIMED trial found an energy-unrestricted Mediterranean diet, supplemented with nuts or extra-virgin olive oil, resulted in a 30% risk-reduction in major CVD events in subjects at high-risk for CVD compared to the low-fat diet control. The study also found decreased markers of inflammation (CRP, IL-6, IL-7), total serum cholesterol, body weight, plasma glucose, insulin resistance, development of type 2 diabetes, and an improvement in endothelial function[16].

Although Mediterranean diet intervention trials continue to show the beneficial effects of the dietary pattern, statin drugs and low-fat diets continue to be most commonly prescribed regimen for the prevention and treatment of CVD. Recent meta-analyses on the Mediterranean diet have found significantly lowered triglycerides, LDL, and total cholesterol compared to low-fat diet control groups, as well as a positive association between length of intervention and improvement in HDL-cholesterol[17].

There is sufficient literature examining the lipid-lowering ability of the Mediterranean diet, with many of these studies noting participants taking statin

drugs. No meta-analysis has evaluated the moderating effects of statin drug therapy in the relationship between the Mediterranean diet and serum lipids. A meta-analysis of existing randomized control studies would provide evidence on whether statin drugs provide additional beneficial effects in improving blood lipids, or if the changes observed are a result of the Mediterranean diet alone. Further, no meta-analysis has compared the effects of the Mediterranean diet to a low-fat diet with statins on serum lipids. This can allow for reduced CVD mortality, reduced individual prescription and health care costs, more individualized nutrition recommendations for individuals with dyslipidemia, and clarification on the role of diet in the lipid hypothesis.

Thus, research questions for the meta-analysis include: 1) Are the lipid-lowering effects of the Mediterranean diet moderated by statin drug therapy in adults who are at high-risk or with existing Cardiovascular Disease (CVD)? 2) Does the Mediterranean diet produce greater improvements in serum lipid levels than a low-fat diet in adults at-risk and with existing cardiovascular disease? 3) Is the Mediterranean diet as effective as a low-fat diet with statin drugs in improving serum lipids in adults? The purpose of this thesis was to conduct a high-quality meta-analysis to evaluate the effects on statin drugs in the relationship between the Mediterranean diet and serum lipids, compare the effects of the Mediterranean diet to those of a low-fat diet on serum lipids, and to compare the effects of the Mediterranean diet to those of a low-fat diet with statin drugs. The specific aims are: 1) To evaluate the impact of the Mediterranean diet on serum lipids (total cholesterol, LDL-cholesterol, HDL-cholesterol, triglycerides) in adults at high-risk and with existing CVD, 2) to evaluate the moderating effect of statin drug therapy on the relationship between the Mediterranean diet and serum lipids, 3) compare the effects of a Mediterranean diet to those of a low-fat diet on

serum lipids, and 4) compare the effects of the Mediterranean diet to the low-fat diet with statins on serum lipids in adults at-risk and with existing CVD. The primary hypothesis is statin drugs will not be a significant moderator in the relationship between the Mediterranean diet and serum lipid levels. The null hypothesis states that the addition of statin drugs will have an effect on the relationship between the Mediterranean diet and improvement in serum lipids. The secondary hypothesis is the Mediterranean diet will provide greater improvements in serum lipid levels than a low-fat diet, with the null hypothesis stating there would be no difference in improvements observed among serum lipids between the low-fat and Mediterranean diet low-fat diet. Our third hypothesis is the Mediterranean diet will be equally effective in improving serum lipids compared to the traditionally prescribed low-fat diet and statin drug therapy combination. The null hypothesis for this hypothesis is the Mediterranean diet will not be equally effective as the low-fat diet and statins in their abilities to lower serum lipids in adults who are at-risk and with existing CVD.

Methods

Literature Search

To adequately compare the Mediterranean and low-fat diets, two separate literature searches were performed. Peer-reviewed literature articles were obtained following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement guidelines[18]. Comprehensive literature searches were conducted using seven computer databases: PubMed (MEDLINE), EMBASE via Scopus, CINAHL, PsycINFO, Academic Search Premier, Agricola, and CAB Direct. The University of Connecticut Health Sciences Librarian (JL) assisted in the search. No language or date restriction

was used. For the Mediterranean diet, original research articles published until September 22, 2016 were included. A combination of key words and Medical Subject Headings related to the study were used. Examples of search terms included: “Mediterranean diet,” “Mediterranean-style diet,” “cardiovascular disease,” “hyperlipidemia,” “dyslipidemia,” “hydroxymethylglutaryl-coa reductase inhibitors”, “antihyperlipidemic medication,” “statin*,” and “Simvastatin.” The comprehensive search, with all terms, can be found in **Appendix 1**. The low-fat diet search also had no language or date restriction, and included published articles through October 7, 2016. The search terms differed in that instead of using Mediterranean diet-related words, examples include: “low fat,” “reduced fat,” “American Heart Association AND diet,” “therapeutic lifestyle changes AND diet,” “DASH,” “hypolipidemic,” and other related terms and phrases. These search terms can be found in **Appendix 2.**

Inclusion criteria stated the Mediterranean diet, as a whole dietary pattern, must have been at least one of the interventions in the study. The study must have pre-test and post-test data for at least one of the outcome variables of interest: triglycerides, low-density lipoprotein (LDL) cholesterol, high-density lipoprotein (HDL) cholesterol, or total cholesterol. Due to this being a new area of research, an inadequate number of studies have analyzed the Mediterranean diet with statin drugs as part of an intervention. Therefore, the studies did not need statin medication as part of an intervention, but did need to report the percentage or number of subjects taking statin drugs in-text or in a table, such as one for demographic information. No minimum or maximum percentage of participants on statin drugs was placed for the study to be included. If a study met all criteria, but did not report statins in demographic information, one researcher (MC) contacted the provided study correspondence to inquire if the

data were available. Participants needed to be high-risk or with existing cardiovascular disease. High-risk subjects were defined as individuals with Type 2 Diabetes Mellitus, or with at least 3 cardiovascular disease risk factors, including: elevated LDL-cholesterol (>160mg/dL), low HDL-cholesterol (<40mg/dL), Hypertension (>140mmHG/>90mmHG), overweight/obesity (BMI >25kg/m^2), current smoking behaviors, or a family history of premature coronary heart disease. If studies were secondary analyses of other trials (i.e. PREDIMED substudies), they needed to have different sample sizes and be conducted at different locations to ensure the same data was not being accounted for twice. All studies needed to be experimental or Quasi-experimental in design. Exclusion criteria included studies with only pre-test or only post-test data, studies using statin drugs that were not/pending approval by the United States Food and Drug Administration, trials that allowed use of dietary supplements, interventions that only examined one component of the Mediterranean diet (only red wine, only olive oil, etc.), and non-intervention trials, trials with exercise as part of the intervention. Studies on subjects with Renal Disease or HIV/AIDS were also excluded due to the disease state requiring very restricted dietary guidelines and the disease-associated lipodystrophy.

For the low-fat diet search, inclusion criteria only differed in that one of the interventions must have been a low-fat diet, defined as <30% of total calories from fat, with statin drug therapy, at any dosage, with the low-fat diet as at least one of the interventions. All systematic reviews and meta-analyses found through the literature search were hand-searched to ensure all relevant articles were included.

Data Extraction

A 5-page, 330-item coding form, along with coding manual, created by a team of 3 Registered Dietitians, and physician, and biostatistician, was used to extract information from each included study. Examples of items coded for included: study information, such as study publication year, year of data collection, and journal name; population risk characteristics, such as age, disease state, and medication use; methods and design, including experimental conditions, and diet intervention characteristics. Two researchers (MC and JS) independently coded each article. A third part expert (TBHM) was consulted to settle disagreements and discrepancies between the independent researchers. **Appendix 3** contains the coding form used for data extraction in this meta-analysis.

Risk of Bias

The Cochrane Collaboration's tool was used to assess bias within individual studies. This tool uses a minus sign ("-") to indicate a high risk of bias, a plus sign ("+") to indicate moderate risk of bias, and two plus signs ("++") to indicate low risk of bias for the parameter being evaluated. Various parameters were used to assess risk of the individual studies, such as subject level of randomization, subject and researcher blinding to intervention, report of attrition, and selective reporting. Methodological quality (MQ) has been identified as an under-reported element in the results of meta-analyses[19]. Methodological quality score was calculated using a 17-question, 22-point methodological quality control form, created from combining methodological quality rating scales published by Miller[20] and Jadad[21]. This form can be found in **Appendix 4**. This meta-analysis used MQ ratings as a possible moderator in mixed-effects regressions.

Statistical Analysis

All descriptive statistics of the study populations were calculated using SAS version 9.4[22]. These included total number of participants, percentage of male and female participants, mean age of subjects, and range and mean year of publication, among others. All code for the analysis can be found in **Appendix 5.** Inter-rater reliability (IRR)[23], which assesses the rate of agreement between the two coders as a proportion, was calculated using IBM SPSS Statistics Version 22[24]. Categorical variables were calculated using Kappa coefficient[25], and continuous variables were calculated using Pearson's R[23].

A standard mean effect size was calculated for each variable of interest in each study using an Excel coding calculator that uses a factor to control for small sample size[26]. The standard mean change, d, is the difference between the pre-test and post-test means for a variable in a sample, divided by the pre-test standard deviation[27]. This allows for results of different study designs to be compared, regardless of the unit of measurement used in the individual studies. The standard mean difference follows a normal distribution, with zero as the null value. The effect is assessed using Cohen's Classification, which interprets 0.25 as a small effect, 0.5 s a medium effect, and 0.8 or higher as a large effect[28].

The remaining statistical analysis was conducted in R version 3.3.1. [29] using the 'metafor' package[30], which is the package for meta-analysis in the R program. Weighted means were calculated using random-effects and fixed-effects models, because they allow some studies to carry more weight in the analysis than others. Random-effects and fixed-effects models are used because they make different assumptions about the nature of the studies. Random-effects models control for sample size and variance, and assume all the data come from different populations. Fixed-effects models assume the data come from the same

population, and do not account for variance between studies[31]. Heterogeneity was assessed to consider the extent of consistency among the results[27], and was evaluated with Cochran's Q and I^2. Two tests are used for heterogeneity because the Q statistic has low power in meta-analyses with few included studies or small sample size, or may carry too much power if there are many studies included. The Q statistic tests for significance of heterogeneity[32], and I^2 tests for magnitude of heterogeneity with a range of 0-100%[31]. An I^2 value of 0 to 40% suggests heterogeneity observed may not be important, 30 to 60% represents there may be moderate heterogeneity, 50 to 90% represents there may be substantial heterogeneity, and 75 to 100% means there is considerable heterogeneity observed[33]. Publication bias was computed, which is used to evaluate how representative the samples in the studies are of the population by regressing the standard errors with the estimated models. This was measured with four statistical tests: two inferential tests, Begg[34] and Egger[35] and two graphical tests, trim-and-fill[36] and a funnel plot[37].

Moderator analysis was used to explain the significant amount of heterogeneity observed among the studies. A moderator is a third variable that alters the relationship of the independent and dependent variables. If the moderator variable is significant, it can strengthen or weaken the relationship between the independent and dependent variables. Moderators can be categorical or continuous variables. In this analysis, proportion of participants using statin drugs was used as a moderator to evaluate if the drug provided a significant improvement in any of the variables of interest (LDL-cholesterol, HDL-cholesterol, triglycerides, total cholesterol) when used in combination with a Mediterranean diet. Other variables that at least 5 studies reported information on were evaluated as moderators to explain heterogeneity observed among the

studies. Variables evaluated as possible moderators included: a diagnosis of CVD or having cardiovascular risk factors, such as Hypertension, Dyslipidemia, or Type 2 Diabetes Mellitus, current smoking behaviors, being female, and weight status. Differences in study characteristics, such as intervention group size, sample size, level of supervision in trials, number of follow-ups, and length of study intervention, as well as region in which the study was conducted were also tested as moderator variables according to justification in the scientific literature[17]. Dietary intervention characteristics, such as recommended macronutrient distribution, intake of dietary cholesterol and saturated fats, dietary fiber, and sodium intake were also evaluated. The Moving Constant Technique[38] was used to create estimates and confidence intervals at multiple levels of the moderators, as well as confidence bands around the entire meta-regression line, to evaluate the effects of the dietary pattern further. All syntax for statistical analysis conducted in R can be found in **Appendix 6** for the Mediterranean diet studies, and **Appendix 7** for the low-fat diet studies.

Results

Literature Search

Inter-rater reliability resulted in a kappa coefficient of 0.93, with 96% agreement between coders for the Mediterranean diet studies, and 0.96 with 96% agreement for coding of low-fat diet studies. A Pearson's coefficient of r=1.0 was obtained for continuous variables for both the Mediterranean diet and low-fat diet studies. The initial Mediterranean diet literature search provided 1,265 articles, after removal of duplicate publications. Additionally, all systematic reviews and meta-analyses found through the literature search were hand-searched to verify all relevant publications were included[39-47], resulting in two additional articles being accepted for inclusion in the study that were not found

through the literature search. Studies were evaluated based on title, key words, and abstract by two independent researchers (MC and JS). The screening process eliminated 1199 articles. Full-text articles were obtained for the remaining 66 articles. After reviewing full-text articles against inclusion criteria, 54 articles were excluded for reasons of not including statin drug information, exercise as a part of the intervention or placing a calorie restriction on the intervention groups. Six researchers were contacted at this step by email to request data on proportion of subjects taking statin drugs[48-54], which resulted in exclusion of five of these 54 studies. The remaining 12 articles were accepted for analysis. For the low-fat diet search, 580 articles were found, after removal for duplicates. The screening process eliminated 543 articles. The remaining 37 full-text articles were obtained. Upon full-text review, an additional 16 articles were excluded for reasons of not reporting pre-and post-intervention data, not having a low-fat diet intervention, and studies with children/adolescents. The remaining 21 articles were accepted for analysis. All systematics reviews and meta-analyses found in the low-fat diet literature search were also hand-searched for possible inclusion[55-82]. One additional article was identified[83], for a final count of 22 articles being accepted for analysis.

Descriptive Statistics

Twelve Mediterranean diet studies, with a total of 9,882 subjects with a mean age of 61.75±7.82 years, were analyzed. Females accounted for 50.4% of the subjects. Further, 38.4% of subjects reported taking some type of statin medication during the trials, and 19.5% were current smokers. A total of 7,720 (78.1%) subjects had hypertension, and 46.2% had dyslipidemia. Trial length ranged from 8 to 260 weeks. Mean publication year was 2007, with a range of 1993-2016. The average impact factor of the journals of publication was 10.057.

Seven of the studies were performed in European countries, and one was conducted in each the United States, Australia, and Asia. All reports were published in the English language. Four slight variations of the Mediterranean diet were observed: Traditional Mediterranean Diet, Indo-Mediterranean Diet, Mediterranean Diet with subjects provided extra-virgin olive oil, and Mediterranean Diet with subjects provided a mixed variety of nuts. A table of the Mediterranean diet intervention descriptive statistics can be found in **Table 1**. No significant asymmetries were found using the graphical and inferential tests. Publications bias values are displayed in **Table 2**. The average methodological quality score of studies was 13.15 with a range of 8 to 17.

Analysis of the 22 low-fat diet trials revealed a total of 6,793 subjects, 57.7% of which were female. For CVD risk factors, a total of 9.6% of subjects were smokers, 22.7% carried a diagnosis of hypertension, and 72.6% of subjects had dyslipidemia. Trials had an average publication year of 1997, with a range of 1990 to 2008. Studies were conducted in various countries, with 9 in the United States, 9 in European countries, 3 in Asia, 1 in Australia, 1 in Canada, and 1 in South America. The average impact factor of journals in which the studies were published was 9.636. Length of intervention ranged from 3 to 208 weeks. The studies used various forms of a low-fat diet intervention. Types of low-fat diets used in the interventions included: 10 low-fat diets, 6 American Heart Association Step 1 diets, 6 American Heart Association Step 2 diets, and 8 other variations, described as very low-fat, cholesterol-lowering, low saturated fat, lipid-lowering, and LifeSpring diets. All low-fat diets recommended no more than 30% of calories from fat, and as low as 17%. Intervention groups of the trials used various types of statins, including: 12 simvastatin, 8 lovastatin, 3 pravastatin, 3 atorvastatin, 2 fluvastatin, and 1 rosuvastatin intervention. All low-fat descriptive

statistics can be viewed in **Table 3**. There were no significant asymmetries found in the inferential and graphical tests for publication bias. Publication bias results for the low-fat diet studies can be found in **Table 4**. Further, the average methodological quality score of studies was 12.23 with a range of 5 to 16.

Random Effects Sizes

When individuals adopted a Mediterranean diet, there was a significant improvement in all outcomes (d_{TG} = -0.45 [-0.79, -0.12, d_{Chol} = -0.66 [-0.96, -0.35, d_{LDL} = -0.52 [-0.76, -0.27],], d_{HDL} = 0.24 [0.01, 0.46]) shown by random effects model analysis. For heterogeneity, Cochran's Q ranged from 74.24 to 224.42, and I^2 ranged from 91.84 to 96.89%. A full table of these results can be found in **Table 5.** Adopting a low-fat diet resulted in significant reductions for total and LDL cholesterol (d_{TG} = -0.12 [-0.25, 0.02], d_{Chol} = -0.39 [-0.57, -0.20], d_{LDL} = -0.24 [-0.36, -0.11], d_{HDL} = 0.06 [-0.27, 0.16]). Cochran's Q ranged from 70.92 to 183.94 and I^2 from 79.47% to 95.01%. Low-fat diet with statin drug therapy resulted in significant reductions for all serum lipid outcomes (d_{TG} = -0.43 [-0.57, -0.30], d_{TChol} = -1.68 [-1.90, -1.46], d_{LDL} = -1.75 [-2.01, -1.49]), d_{HDL} = 0.37 [0.29, 0.45]). Cochran's Q ranged from 299.10 to 723.97, and I^2 ranged from 84.32 to 96.75% A table of low-fat diet results, both with and without statin drugs, can be found in **Table 6**.

Mediterranean Diet Moderator Analysis

Studies included in the analysis varied in study and intervention characteristics, such as study region, proportion of female subjects, length of intervention, and proportion of subjects with cardiovascular disease and cardiovascular disease risk factors, among others. Analysis of the proportion of subjects taking statin drugs with a Mediterranean diet intervention did not account for any heterogeneity across all four serum lipid variables (R^2_{TChol} =

0.00%, p= 0.95; R^2_{TG} = 0.00%, p=0.80; R^2_{LDL} = 0.00%, p = 0.47; R^2_{HDL} = 1.67%, p = 0.33). A predictive model was used to determine the magnitude of effect statin drugs carried with various proportions of subjects taking statins. The proportions analyzed included: 0%, 7% (minimum observed), 10%, 25%, 50%, 75%, and 100% (maximum observed) of subjects. There were no significant associations observed for proportion of subjects and any of the serum lipid outcomes.

Across the interventions, a significant association was found between decrease in triglycerides and studies conducted in a European country (R^2_{TG} = 32.00%, p=0.02), and with a greater number of follow-up sessions (R^2_{TG} = 70.30%, p<.0001). The level of intervention supervision also accounted for significant heterogeneity for only triglyceride lowering - conducting one-on-one intervention sessions accounted for 32.00% of heterogeneity (p=0.02), and small group interventions for 28.16% (p=0.03) of the heterogeneity. Number of participants lost to follow-up accounted for the highest amount of heterogeneity for triglycerides (R^2_{TG} = 96.47%, p<.0001), but was not significant for any other outcomes of interest.

Length of intervention (in weeks) had a significant impact on reduction in total cholesterol levels (R^2_{TChol} = 54.74%, p=0.02). A predictive model was used to determine the magnitude of effect for length of intervention at the minimum and maximum length (8 and 260 weeks). There was a significant association found for length of intervention and total cholesterol (B_{TChol} = -0.003, p=0.02) – longer Mediterranean diet interventions resulted in greater decreases in total cholesterol. Receiving funding from a government source also was significantly associated with decrease in total cholesterol (R^2_{TChol} = 42.96%, p=0.01), and increase in HDL-cholesterol (R^2_{LDL} = 61.22%, p=0.0005).

Carrying a diagnosis of dyslipidemia was associated with a significant beneficial effect on HDL cholesterol with consumption of a Mediterranean diet, explaining 81.20% (p<.0001) of the variability between studies. Studies reporting subjects taking hypoglycemic agents, such as insulin or oral hypoglycemic agents, explained heterogeneity for triglycerides and HDL (R^2_{TG} = 78.57%, p<.0001, R^2_{HDL} = 96.47%, p<.0001), but only trending towards significance for total cholesterol (R^2_{TChol} = 31.11%, p=0.10). Studies reporting subjects taking blood pressure medication during the trial explained some of the heterogeneity observed for LDL-cholesterol (R^2_{LDL} = 14.03%, p=0.03), with no other variables with adequate reported information explaining heterogeneity for this outcome.

Other cardiovascular disease risk factors (e.g. hypertension, current smokers, being female, and weight loss) impact per publication (IPP) score of journal of publication, and methodological quality score were assessed and did not provide significant results. A full list of the Mediterranean diet moderator analysis results can be found in **Table 7.**

Low-Fat Diet Moderator Analysis

Similar moderators evaluated for the Mediterranean diet were considering for the low-fat diet. Length of intervention was only found to be a significant moderator for triglycerides, explaining 31.86% (p=0.04) of the heterogeneity observed. Studies region was evaluated as a moderator, with sufficient data to evaluate studies conducted in the United States and in Europe. There was no association found between conducting a study in Europe with the low-fat diet for any of the four serum lipids; however, studies conducted in the United States explained 22.71% of the heterogeneity observed for total cholesterol p=0.03). Sample size also explained significant heterogeneity for total cholesterol (R^2=32.80%, p=0.04). No other study characteristics were found to be significant.

Cardiovascular disease and risk factors were also assessed. Both proportion and number of subjects with hypertension explained heterogeneity among the lipid outcomes. Proportion of subjects explained 59.12% (p=0.0007) of the variability observed for triglycerides, while number of subjects explained significant heterogeneity for total and LDL cholesterol (R^2_{TChol} =36.21%, p=0.048; R^2_{LDL}=78.06%, p=0.02). Female subjects also significant explained heterogeneity for total cholesterol (R^2=34.79%, p=0.04).

Dietary characteristics were assessed to evaluate the impact of diet in the relationship between a low-fat diet and the four serum lipids. Macronutrient distribution was assessed and each macronutrient had significantly explained some of the heterogeneity for at least one serum lipid. Proportion of fat intake was significant for total cholesterol and LDL cholesterol (R^2_{TChol} =33.73%, p=0.0008; R^2_{LDL}=27.57%, p=0.0049), while proportion of protein intake was significant for HDL (R^2=14.43%, p=0.04) and carbohydrate intake was significant for triglycerides (R^2=65.19%, p=0.01). Dietary cholesterol intake was assessed, and explained 100% of the heterogeneity observed for HDL cholesterol (p<.0001). Cholesterol also explained significant heterogeneity for LDL (R^2=35.05%, p=0.03). Dietary fiber intake explained between 13.50 and 43.23% of the heterogeneity observed for the four outcomes, but was only significant for change in HDL (R^2_{TG} =43.23%, p=0.09; R^2_{TChol}=13.50%, p=0.13; R^2_{LDL} =18.26%, p=0.10; R^2_{HDL}=15.64%, p=0.04). A table of the moderator analysis results for the low-fat diet without statins can be found in **Table 8**.

Low-Fat Diet and Statins Moderator Analysis

All variables with adequate reporting of information from studies were evaluated to account for heterogeneity of low-fat diet studies as well. Longer

intervention length yielded significantly more beneficial effects, explaining 19.22% for LDL and 23.64% for total cholesterol.

A predictive model was also used for the low-fat diet studies at the minimum and maximum lengths of intervention (3 and 104 weeks) to evaluate the magnitude of effect. Length of intervention was again found to be significant for both total cholesterol (B = -0.01, p=0.0037) and LDL (B = -0.01, p=0.003), showing that longer interventions with a low-fat diet with statin drugs produce greater reductions. Proportion of female was also significant for total and LDL cholesterol (R^2_{TChol} = 20.43%, p=0.0434; R^2_{LDL} = 14.76%, p=0.0180), with predictive models showing greater proportions of female subjects leading to greater decreases in total (B = 0.78, p=0.0434) and LDL (B = 1.05, p=0.0180) cholesterol.

Recommended macronutrient distributions and various recommendations on dietary intake were analyzed as moderators, and predictive models were used to analyze the proportions if found to be significant. Proportion of fat was significant for total cholesterol (R^2_{TChol} = 9.66%, p=0.0476), with the predictive model showing the greater proportion of fat intake leading to greater decreases in total cholesterol levels (B = 0.01, p=0.0476). Recommended proportion of carbohydrate intake was found to be a significant moderator for total cholesterol and LDL cholesterol, explaining 26.85% and 11.90% of the heterogeneity, respectively. For both outcomes, predictive models showed lower carbohydrate intake producing greater decreases (B_{TChol} = 9.01, p=0.0026, B_{LDL} = 7.26, p=0.0459). Recommended protein intake was analyzed, and only significant for HDL-cholesterol, accounting for 12.52% (p = 0.0476) of the variability observed among the studies. Lower protein intake yielded a greater improvement in HDL cholesterol levels, according to predictive models (B = -10.60, p=0.0408). Lastly,

recommended cholesterol intake was found to be significantly associated with change in HDL (R^2_{HDL} = 18.05%, p=0.0173). Minimum and maximum recommendations were used in the predictive model (31mg and 300mg per day), and showed greater increases in HDL cholesterol with greater cholesterol intake (*B* = -0.0017, p=0.0173).

Intervention characteristics, such as total sample size, intervention group size, number of intervention groups, level of supervision in the intervention, and provision of food items were analyzed. Total sample size explained significant heterogeneity for total cholesterol, LDL, and HDL (R^2_{TChol} = 26.51%, p=0.0008; R^2_{LDL} = 28.32%, p=0.0013, R^2_{HDL} = 31.07%, p=0.0013). Minimum and maximum sample sizes (19 and 3390) were used in predictive models, and showed greater decreases in total cholesterol and LDL cholesterol, and greater increases in HDL cholesterol with larger sample sizes (B_{TChol} = 0.0003, p=0.0008, B_{LDL} = 0.0003, p=0.0013, B_{HDL} = 0.0001, p=0.0013). Intervention group size significantly explained between 16.58 and 22.16% of the variation among studies for all four serum lipid outcomes, with larger intervention group sizes providing greater improvements. Number of intervention groups was a significant moderator for total cholesterol and HDL (R^2_{TChol} = 17.62%, p=0.0120; R^2_{HDL} = 35.03%, p<.0001). Level of intervention specifically having one-on-one intervention sessions with study participants, explained a small, but still significant amount of heterogeneity for HDL cholesterol (R^2_{HDL} = 3.34%, p=0.0078). Provision of food intake was analyzed, and only found to be significant for change in total cholesterol levels (R^2_{TChol} = 14.38%, p=0.0191).

Different disease states were used as moderators if significant data were reported by the studies. Number of subjects with cardiovascular disease explained significant variation for total cholesterol, LDL, and HDL cholesterol

(R^2_{TChol} = 49.05%, p<.0001; R^2_{LDL} = 60.15%, p<.0001, R^2_{HDL} = 25.43%, p=0.0084). Use of predictive models showed greater improvements in these three serum lipid outcomes with more subjects carrying a diagnosis of cardiovascular disease. Dyslipidemia was not used as a moderator because all subjects in the low-fat diet studies who were on statins carried a diagnosis of dyslipidemia; therefore, the random-effects analysis already included the effects of a low-fat diet with statins on individuals with dyslipidemia.

Additionally, changes in weight and funding source were assessed as moderators. Studies only reported enough data on weight maintenance to allow for analysis. Weight maintenance significantly explained 16.35% and 15.44% of variation among studies for LDL and HDL cholesterol

Other variables analyzed included study region (United States and Europe), hypertension, current smokers, and statin dose. None of these variables were found to be significant. A summary of the low-fat diet with statins moderator analyses can be found in **Table 9**. All insignificant moderators tested for all three dietary interventions can be found in **Table 10**, and moderators unable to be analyzed due to lack of reported information in studies in **Table 11**.

Risk of Bias

For the Mediterranean diet studies, moderator analysis was not significant for any of the risk of bias parameter. There was a low risk of bias found for 58.3% of studies for random sequence generation, and 25.0% for allocation of control. For blinding of participants, low risk of bias was observed for 41.7% of studies, and high risk of bias for 8.3%. For incomplete outcome data for both short term and long term reporting, 33.3% of studies had a low risk, and 8.3% had high risk. There was no reported data on high or low risk of selective outcome reporting.

For other potential threats of validity, 16.7% of studies had high risk. **Figure 31** shows a summary for risk of bias reporting.

For low-fat diet with statin studies, no parameter was significant for risk of bias when analyzed as a moderator. For random sequence generation, 90.9% of studies had low risk of bias, and 9.1% had high risk. 59.1% of studies had low risk of bias and 13.6% with high risk for allocation of control. For blinding of participants, 27.3% of studies had low risk of bias and 36.4% with high risk. There were no studies reporting high risk of bias for incomplete outcome data, and 54.5% had a low risk. Insufficient information was reported for selective outcome reporting to evaluate studies as low or high risk of bias. 18.2% of studies had low risk of bias for other potential bias, and 9.1% had a high risk. **Figure 32** shows a summary for risk of bias reporting for the low-fat diet and statin studies.

Discussion

This meta-analysis of 12 Mediterranean diet studies found the consumption of a Mediterranean diet yields significant decreases in triglycerides, total cholesterol, LDL-cholesterol, and HDL-cholesterol in adults who are at high-risk and with existing CVD. The moderator analysis supported our primary hypothesis that statin drugs did not alter the relationship between the Mediterranean diet and serum lipids in adults, both at-risk and with existing CVD. The meta-analysis of 22 low-fat diet studies also reached significance: the low-fat diet alone significantly improved total cholesterol and LDL cholesterol, and there were even greater improvements observed in low-fat diet with statins interventions for all four serum lipid outcomes. When compared to the effects of a low-fat diet, the Mediterranean diet produced greater effect sizes for all four serum lipids; therefore the secondary hypothesis was accepted. Our third

hypothesis stated the Mediterranean diet would be equally effective in improving serum lipids compared to the traditionally prescribed low-fat diet and statin drug therapy combination. Results showed the low-fat diet with statins produced greater outcomes for total, LDL, and HDL cholesterol, resulting in rejecting out third hypothesis.

This meta-analysis provides new information for achieving improvements in serum lipids with dietary modification alone and with statin therapy. These results suggest a low-fat diet with statins remains the best recommendation for serum lipid lowering in adults at high-risk and with existing CVD; however, significant improvements observed with the Mediterranean and low-fat diets support the need for dietary modification in the prevention and treatment of CVD.

The moderator analysis explained significant sources of heterogeneity among the studies for the Mediterranean diet, low-fat diet, and low-fat diet with statin interventions. The Mediterranean diet was found to produce significantly better outcomes for triglycerides when the study was conducted in a European country. A possible explanation for this is greater access to food components of the Mediterranean diet when living in a Mediterranean country, as well as Mediterranean country culture placing a higher value on food and meal enjoyment than Western culture. Further, the low-fat diet alone showed to be more beneficial when conducted in the United States. During the mid-1990's, low-fat diets increased significantly in popularity in America. Living in an environment that encourages the prescribed dietary pattern likely increases adherence, leading to better outcomes.

Longer interventions lead to greater improvements for total, LDL, and HDL cholesterols in the Mediterranean diet and low-fat diet with statins interventions, and for triglycerides in the low-fat diet without statin interventions.

This is consistent with observations in previous studies of greater and longer adherence to a Mediterranean diet[17,84,85]. Greater number of follow-up sessions, and subjects counseled in one-on-one or small group sessions led to greater improvements in triglycerides, and trend towards greater improvements for total and LDL cholesterol in the Mediterranean diet, with a possible explanation of subjects feeling a greater level of support with repeated contact.

For low-fat diet with and without statins, greater proportion of female subjects had significant or trends towards greater improvements in total, LDL, and HDL cholesterol. This suggests that female subjects may benefit more from a low-fat diet. A 2014 meta-analysis by Wu, Ma, Walton-Moss, and He evaluated a low-fat diet on serum lipids in premenopausal and postmenopausal women. Their results found significant improvements in total, LDL, and HDL in premenopausal women, but further studies were needed to evaluate the effects in postmenopausal women. Therefore, these moderator results are consistent with observations in other studies[86].

Analyzing dietary recommendations provided greater insight to the effects of diet composition in outcomes. Higher recommendation for proportion of fat intake was found to yield greater improvements in total cholesterol, and higher intake of dietary cholesterol lead to greater improvements in HDL cholesterol levels in low-fat diet with statin interventions. This supports the 2015 Dietary Guidelines for Americans statement; “Cholesterol is not a nutrient of concern for overconsumption” [87]. Higher protein intake was inversely associated with improvement in HDL cholesterol for both low-fat diet interventions. Mediterranean and low-fat diets tend to have similar recommendations of protein intake of 10-20%. The literature shows conflicting evidence of the benefits of higher protein intake on cardiometabolic risk factors and overall health[88,89].

The mechanisms in which these interventions improve serum lipids differ and can greatly impact overall health. Beyond inhibiting the HMG-CoA reductase enzyme, statins decrease cholesterol ester transferase protein (CETP), a protein that promotes the transfer of cholesterol esters from HDL to more atherogenic cholesterols, such as IDL, VLDL, and LDL. This contributes to a rise in HDL and a decrease in LDL cholesterol[90]. The mechanism of the Mediterranean diet, however, has not been clearly defined. There have been associations found between increased satiety from the high fat and fiber content of the diet leading to weight loss, which is associated with improvement in serum lipids. Individual components of the diet, such as extra-virgin olive oil, the primary fat source of the diet, moderate alcohol consumption, and omega-3 intake have also been associated with improvement in serum lipids and reduced risk of type 2 diabetes[91-93]. Both mechanisms have shown to be effective.

Use of statins can pose side effects that the Mediterranean diet does not, which can interfere with reaching cholesterol goals. For studies included in this analysis, statin dose levels ranged from 5 to 80mg, with those of higher doses (40 and 80mg) being of shorter duration. In the short duration of these studies of mostly 4 to 8 weeks, myalgia, rise in liver function tests, epigastric pain, and diarrhea were the most commonly reported side effects in studies that reported adverse effects. Though few subjects compared to the entire sample needed to withdraw treatment due to side effects, the short duration of these studies could have been motivation for subjects to continue treatment, despite adverse effects. A retrospective cohort study of Boston-area hospitals analyzed the rate of statin discontinuation and rate of adverse effects in 107,835 patients. The study found 17.4% of patients experienced adverse effects, with myalgia being the most commonly reported reason. Of this group experiencing adverse effects, 59.1% of

them needed to at least temporarily discontinue statin therapy[94]. Conversely, the Mediterranean diet does not have side effects, and provides benefits beyond its lipid-lowering capabilities, including: weight loss, decreased inflammatory markers, decreased insulin resistance and risk for developing type 2 diabetes, decreased blood pressure, improvement in endothelial function, and slowed cognitive decline with aging[49,95-98]. Further, patients discontinue statin use for reasons other than adverse effects. Because of the symptomless nature of dyslipidemia, patients do not have the same motivation to adhere to their medication regimen that they would with a symptomatic disease. Other possible reasons for lack of adherence include lack of communication with physician, medication costs, and complex medication regimens. As a result, 50% or more patients discontinue statin use within one year after the start of treatment, with further decrease over time[99]. Diet, however, is a natural part of day-to-day life that can be modified with simple nutritional counseling by a registered dietitian.

Further investigation is warranted to provide an answer to which intervention is more beneficial to patients. This analysis provides a foundation for future studies to be conducted on the Mediterranean diet and statin drug therapy.

Strengths and Limitations

There are many strengths to this study. These include a comprehensive coding form with over 330 variables was used to extract data from the studies. This coding for was thoroughly pilot tested for accuracy. Having many characteristics coded allows further investigation to explain heterogeneity among the studies. We used predictive models to evaluate the effects of significant moderators at multiple levels. A comprehensive literature search was conducted with the help of a professional university librarian to ensure all relevant studies on the topic were included on the Mediterranean diet and low-fat diet with statins.

There are also limitations of this study. First, the literature search for low-fat diet studies was aimed at low-fat diet with statin drug interventions. The search likely missed studies with only a low-fat diet intervention due to adding in the analysis of low-fat diet alone to the Mediterranean diet after the search was conducted. Exclusion criteria did not address subjects with Liver Disease, another disease state that is associated with lipodystrophy. None of the included studies stated subjects with the condition, however they may not have addressed it in their exclusion criteria. This analysis did not take into account the characteristics, such as lipophilic versus hydrophilic, generation, or method of metabolism, of different types of statin drugs, which may have an effect on results. Further, we did not analysis changes in inflammatory markers, which have a large impact on the development and progression of cardiovascular disease. The low-fat diet studies also had a mean publication of ten years earlier than the Mediterranean diet studies. Due to the high societal presence of Familial Hypercholesterolemia, and the lack of studies identifying subjects carrying this mutation, we were unable to evaluate if the effects of the diet are more beneficial for those with genetically or lifestyle induced dyslipidemias. Uncontrolled or unaccounted level of exercise of the subjects may cause a change in lipid profile. Subjects of the Mediterranean diet trials may have been prescribed a statin regimen either before or during the intervention, but did not inform the principal investigator of their study, causing subjects to be missed for this analysis. As with all meta-analyses, we were limited to what studies reported, as the data used in this analysis was mostly published data. If raw data for all studies were provided for the analysis, it would allow for an Individual Participant Data (IPD) meta-analysis, which is the gold standard of meta-analyses. This would ensure greater accuracy of the results. Further, multiple variables did not have sufficient reported data among studies to

be analyzed, resulting in significant heterogeneity among the studies that could not be explained by the moderators analyzed.

Clinical Implications

This preliminary work in the area of Mediterranean diet with statins suggests combined therapy of Mediterranean diet with statin drug therapy may be unwarranted. Further research is needed to understand the relationship between the Mediterranean diet with statins as a recommendation for prevention and treatment of CVD. In subjects desiring dietary modification without statin treatment, the Mediterranean diet showed to be more favorable than low-fat diet, which holds consistent with previous studies (Sofi, 2104; Garcia 2015; Kastorini 2011). The low-fat diet with statin drugs provided greatest improvements in serum lipids, and therefore is very beneficial for subjects who require more aggressive lipid-lowering therapy[96].

Future Directions

This research supports the need for future trials to be conducted to further investigate the effects of Mediterranean diet in combination with statin drug therapy. The question still stands about the accuracy of the cholesterol hypothesis due to many trials finding substantially greater decreases in morbidity and mortality with consumption of a Mediterranean diet as opposed to a low-fat diet with statins. Future analysis should evaluate the outcomes of cardiac death or cardiac events in individuals who adopt a Mediterranean diet with and without statin therapy, as well as to those on statin therapy with a low-fat diet to truly test the accuracy of the hypothesis. Future work can also examine the incidence of individuals who can lower their lipid levels with diet to a point of being able to lower dosage or discontinue use of statin drugs. A comparison of individuals with diet-induced hyperlipidemia versus Familial Hyperlipidemia using Mediterranean

diet can be performed to assess if the diet with and without statin drugs has a significant effect on this extremely common genetic defect. This analysis can be the beginning of a more broad area of research comparing the Mediterranean diet to various types of drugs for other disease states, such as Type 2 Diabetes and hypoglycemic agents and Hypertension with antihypertensive medications.

Conclusion

The results of this meta-analysis show the Mediterranean diet can successfully lower total cholesterol, LDL, and triglycerides, and raise HDL cholesterol, and statin drugs do not contribute to improvement in serum lipids when combined with the Mediterranean diet when assessed with moderator analysis. The Mediterranean diet produces greater improvements in all four serum lipids than a low-fat diet, and a low-fat diet with statin drugs produces the greatest improvements among the three interventions. This pilot work supports the need for the need for clinical trials need to directly evaluate the effects of the Mediterranean diet with and without statin drug therapy to provide evidence of it's effects. This meta-analysis favors both the Mediterranean diet and low-fat diet with statin drugs as effective lipid-lowering interventions for adults at high-risk and with existing cardiovascular disease.

Tables and Figures

Figure 1: PRISMA Diagram for Mediterranean Diet Study Inclusion

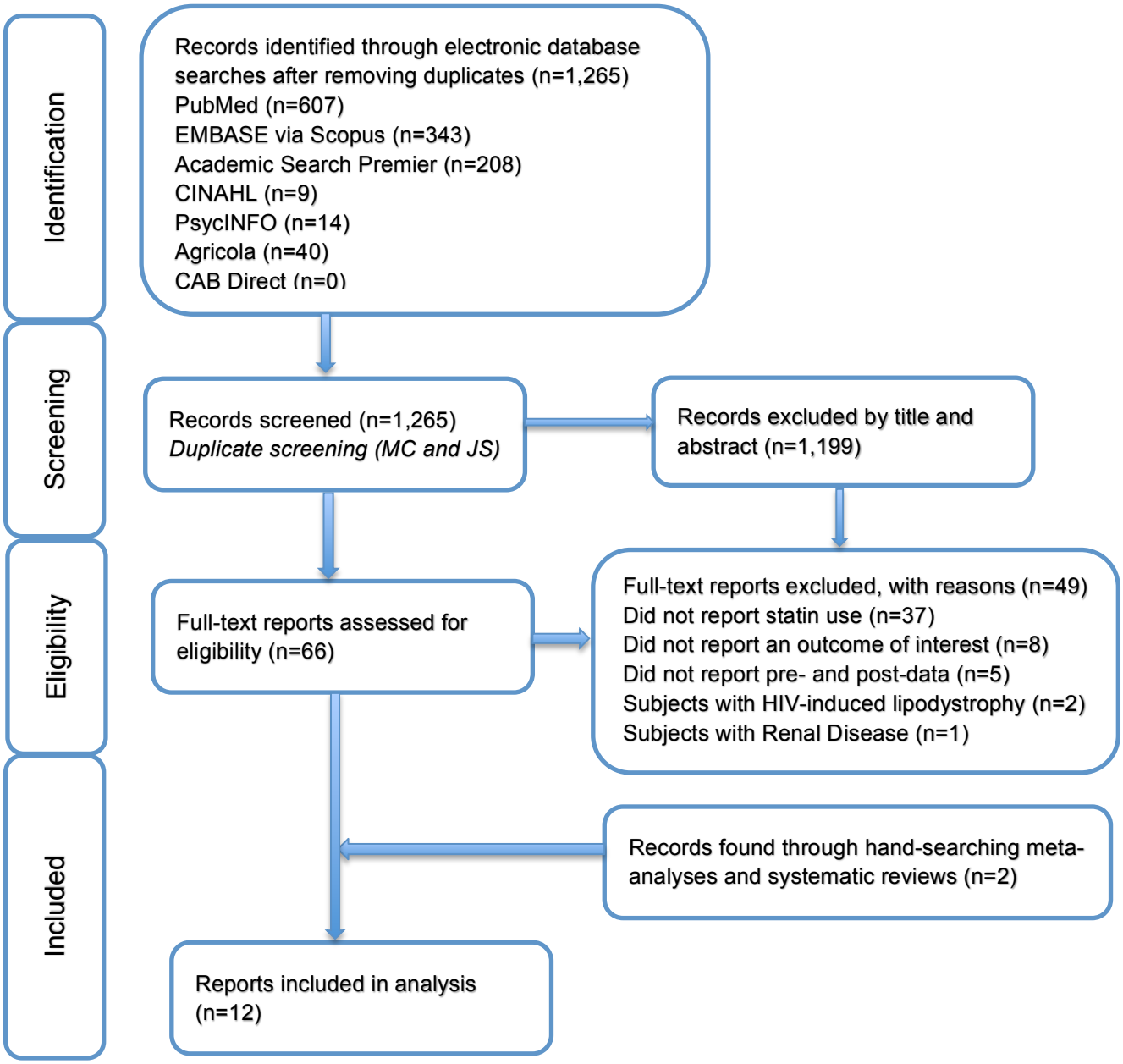


Figure 2: PRISMA Diagram for Low-Fat Diet Study Inclusion

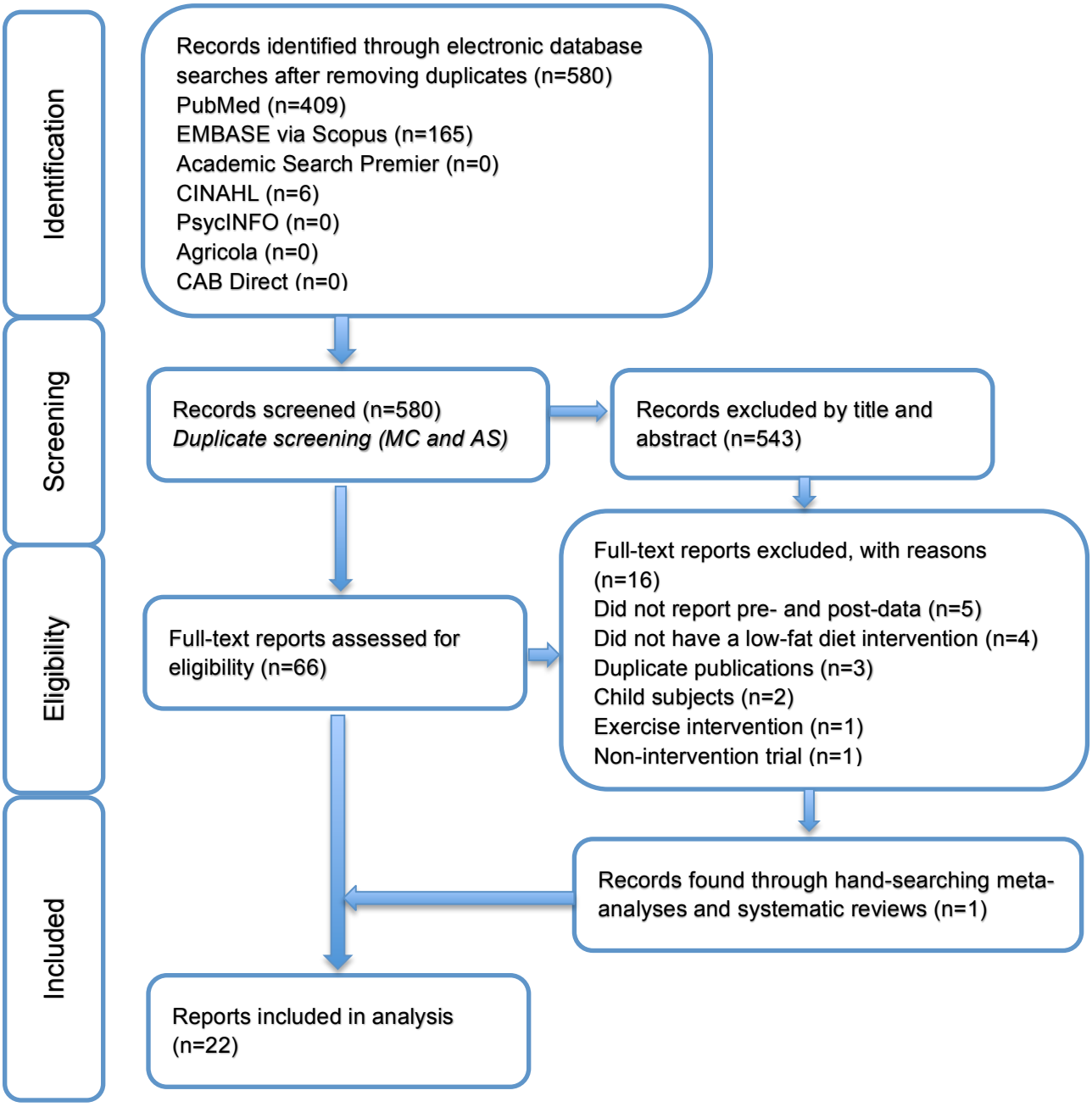
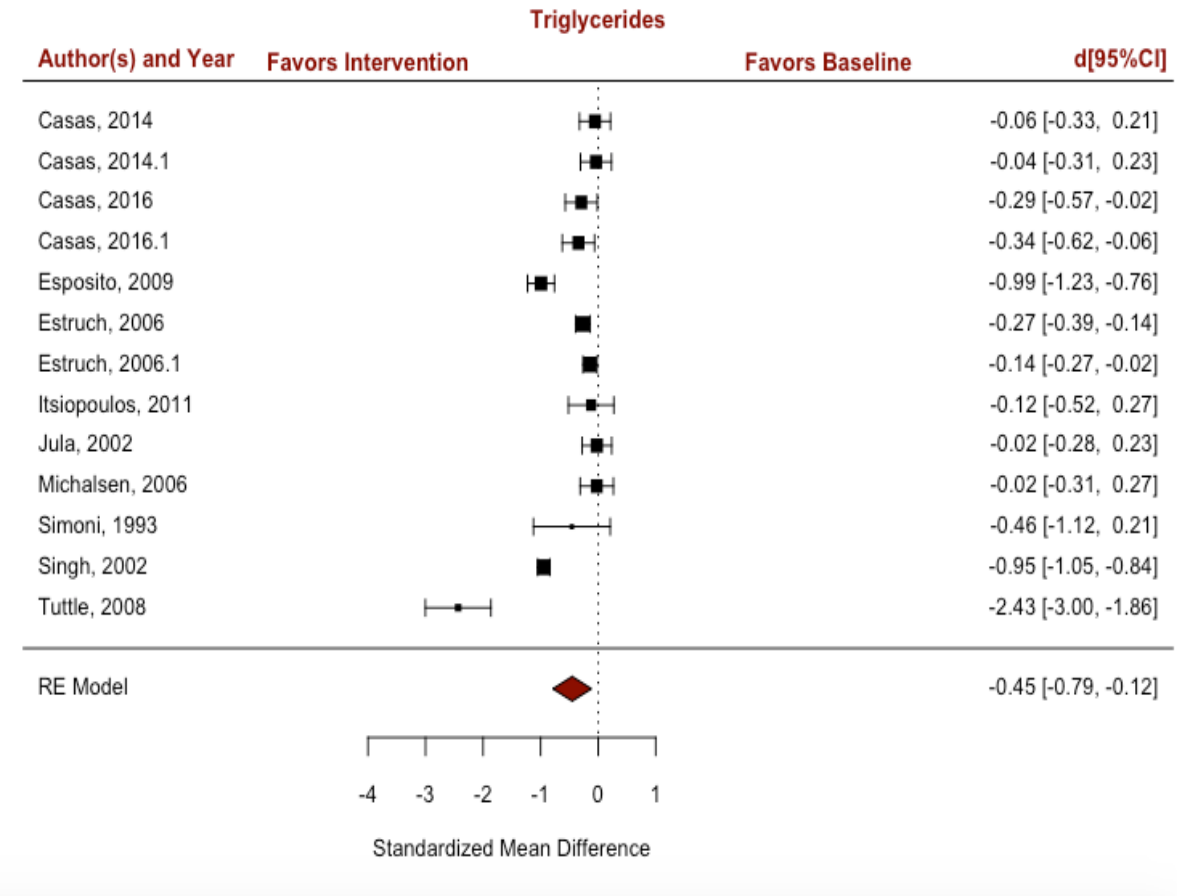
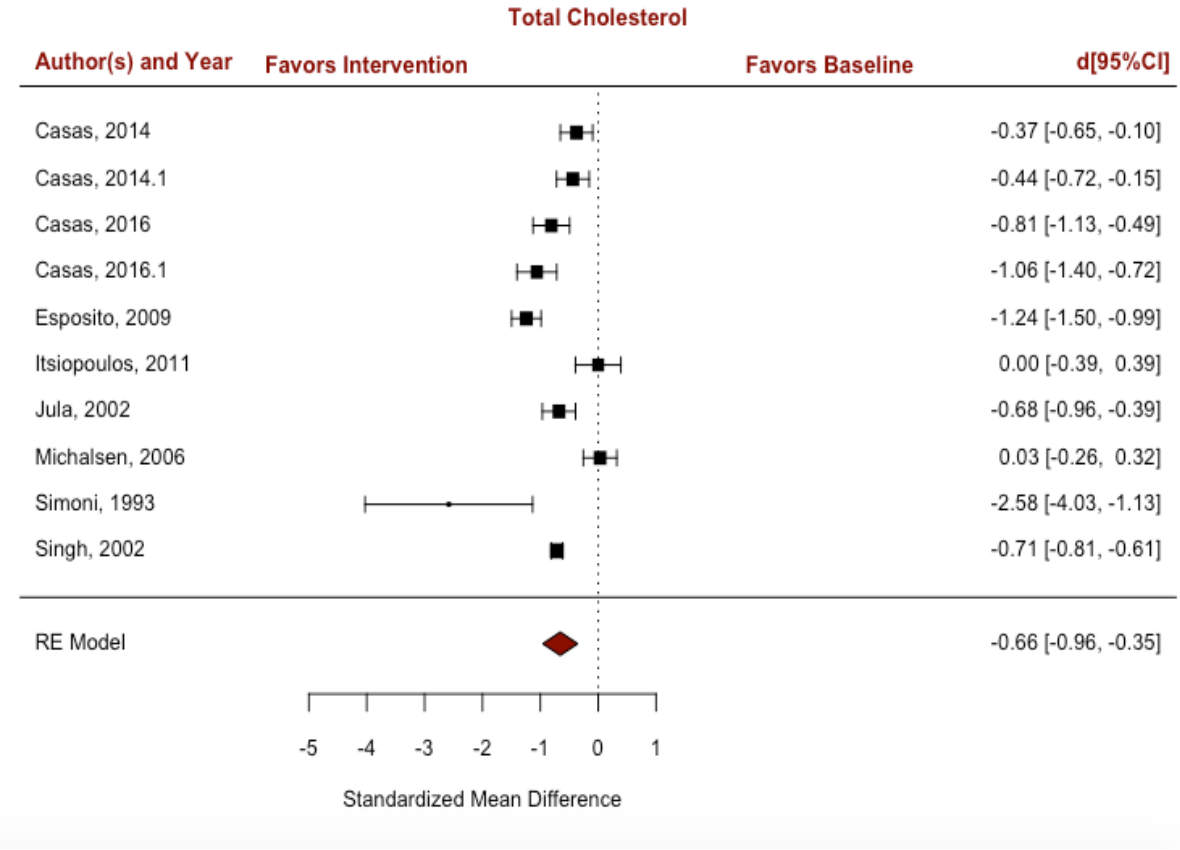


Figure 3: Mediterranean Diet and Triglycerides Forest Plot



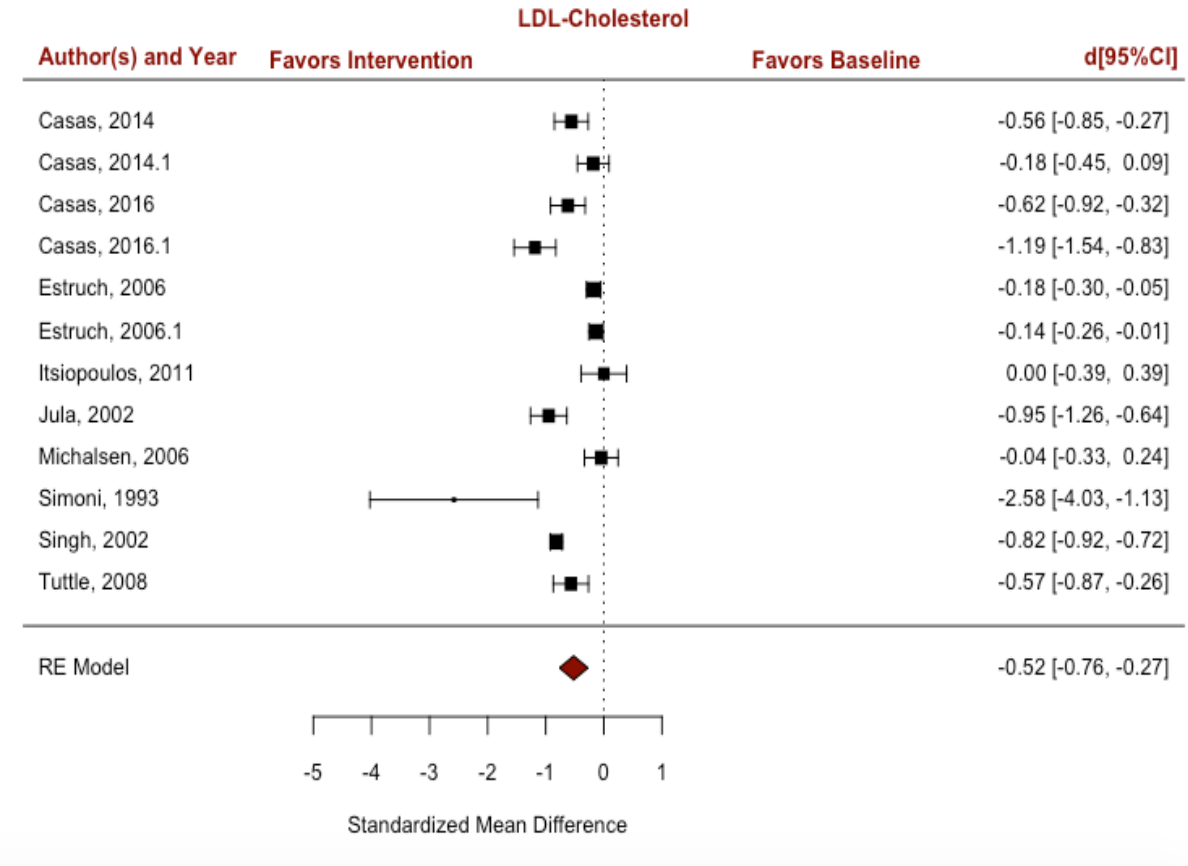
Note: Squares represent point estimates for each individual study; extended line shows 95% confidence intervals (Cis); dotted line represents the null value of zero; diamond represents the weighted mean effect size for the outcome.

Figure 4: Mediterranean Diet and Total Cholesterol Forest Plot



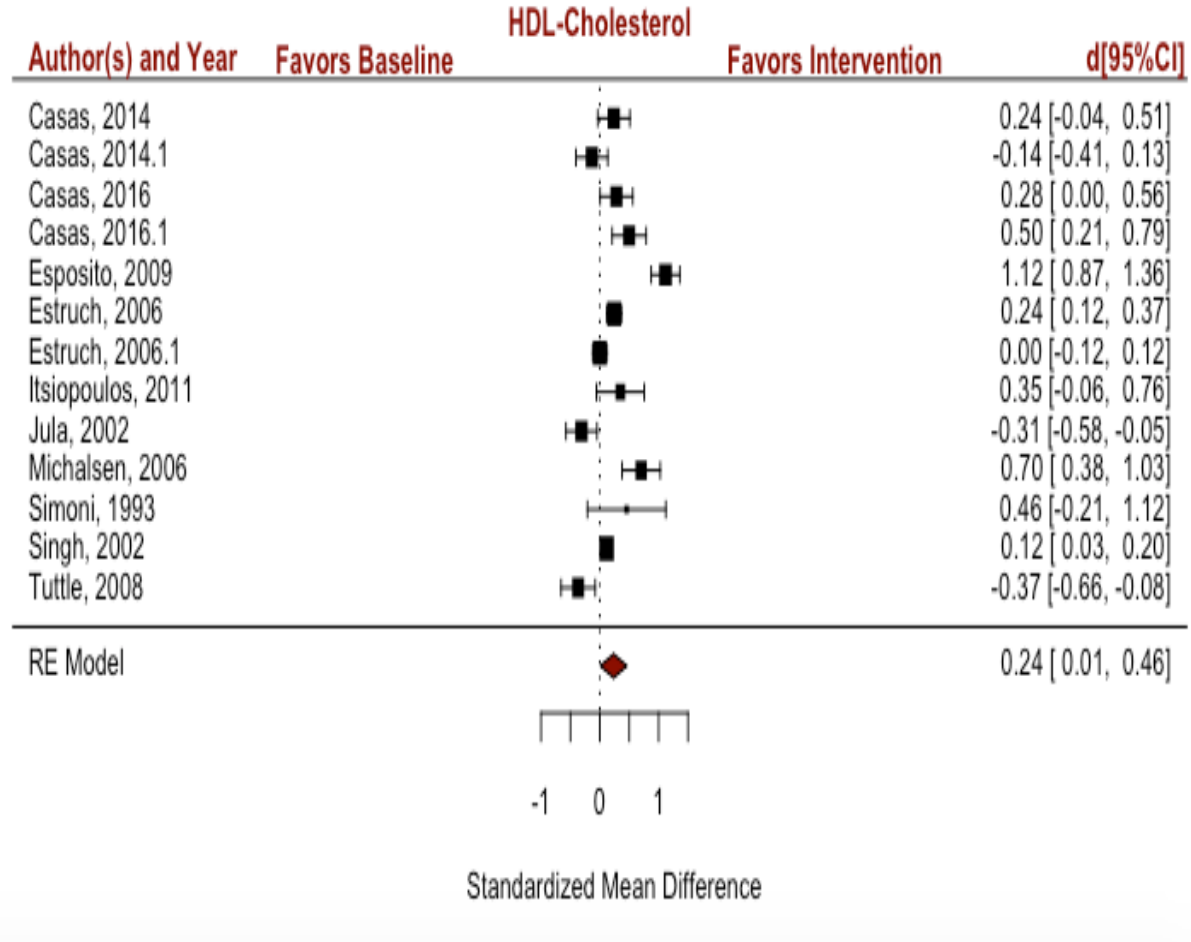
Note: Squares represent point estimates for each individual study; extended line shows 95% confidence intervals (Cis); dotted line represents the null value of zero; diamond represents the weighted mean effect size for the outcome.

Figure 5: Mediterranean Diet and LDL-Cholesterol Forest Plot



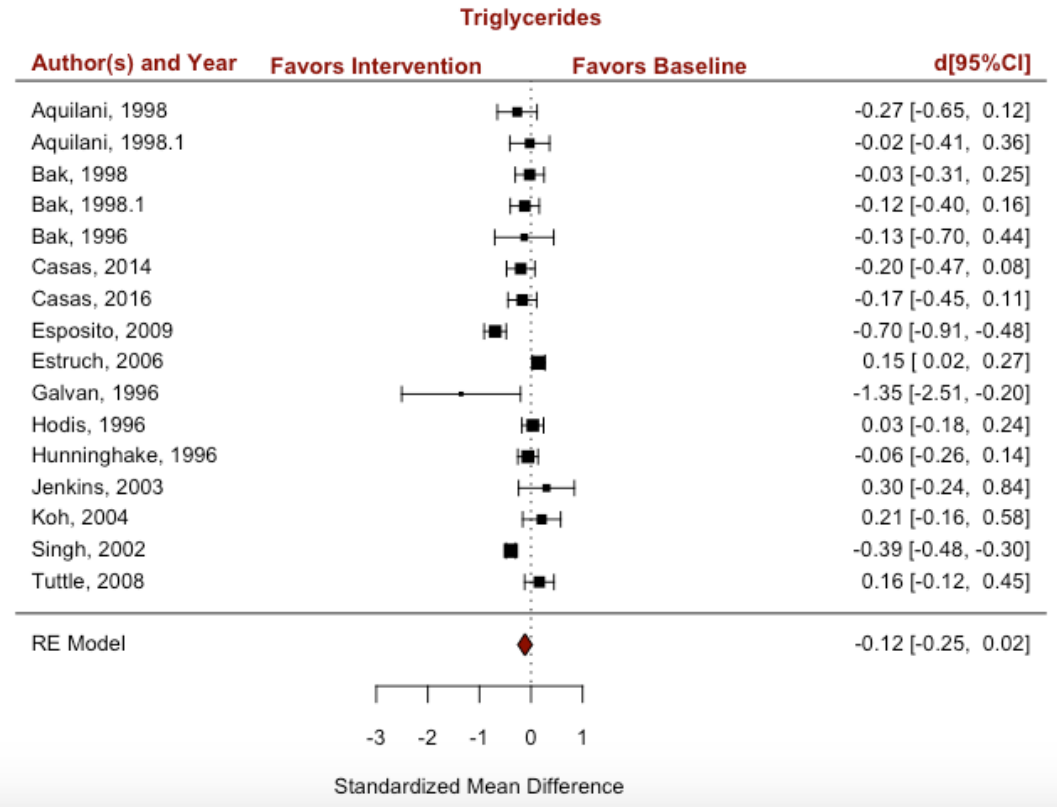
Note: Squares represent point estimates for each individual study; extended line shows 95% confidence intervals (Cis); dotted line represents the null value of zero; diamond represents the weighted mean effect size for the outcome.

Figure 6: Mediterranean Diet and HDL-Cholesterol Forest Plot



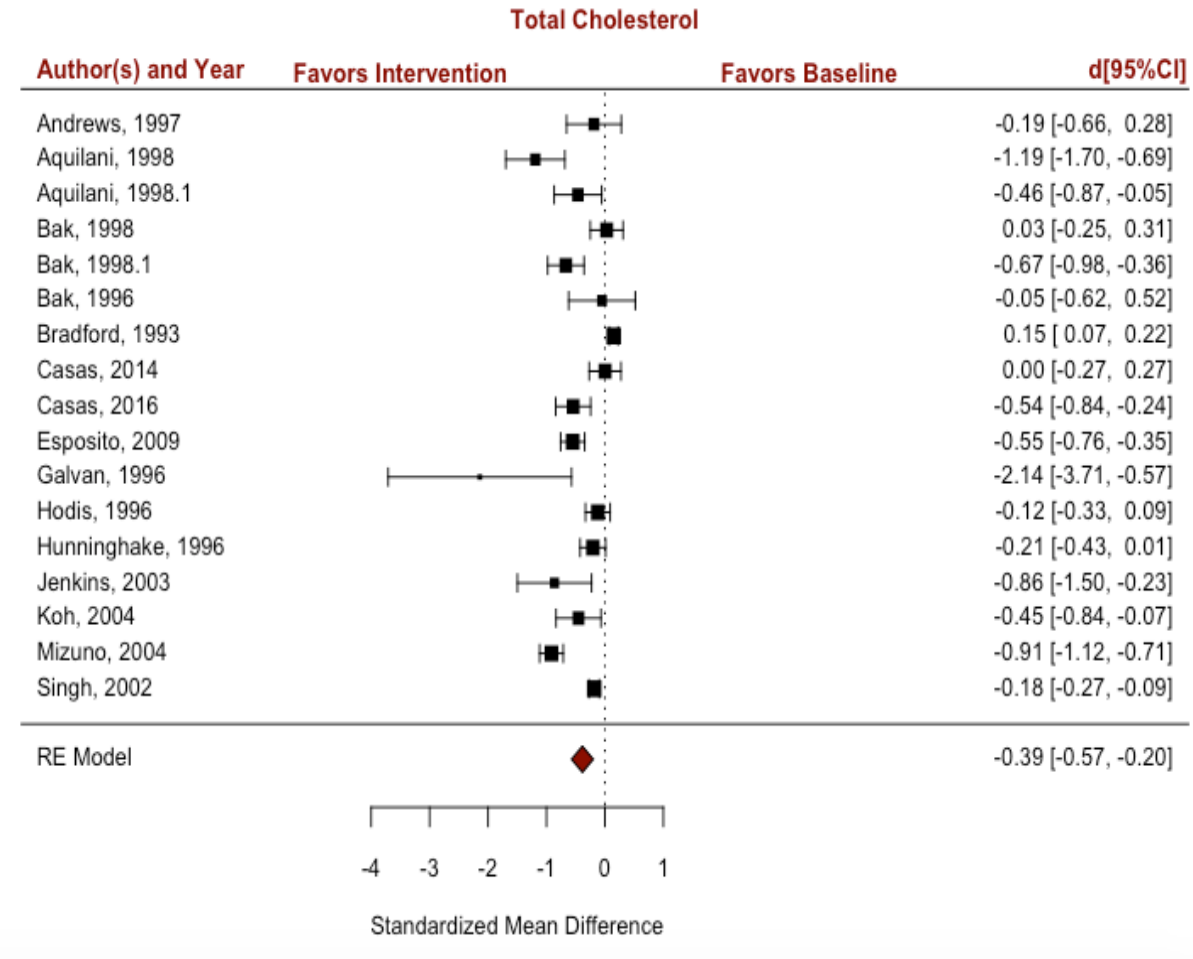
Note: Squares represent point estimates for each individual study; extended line shows 95% confidence intervals (Cis); dotted line represents the null value of zero; diamond represents the weighted mean effect size for the outcome.

Figure 7: Low-Fat Diet and Triglycerides Forest Plot



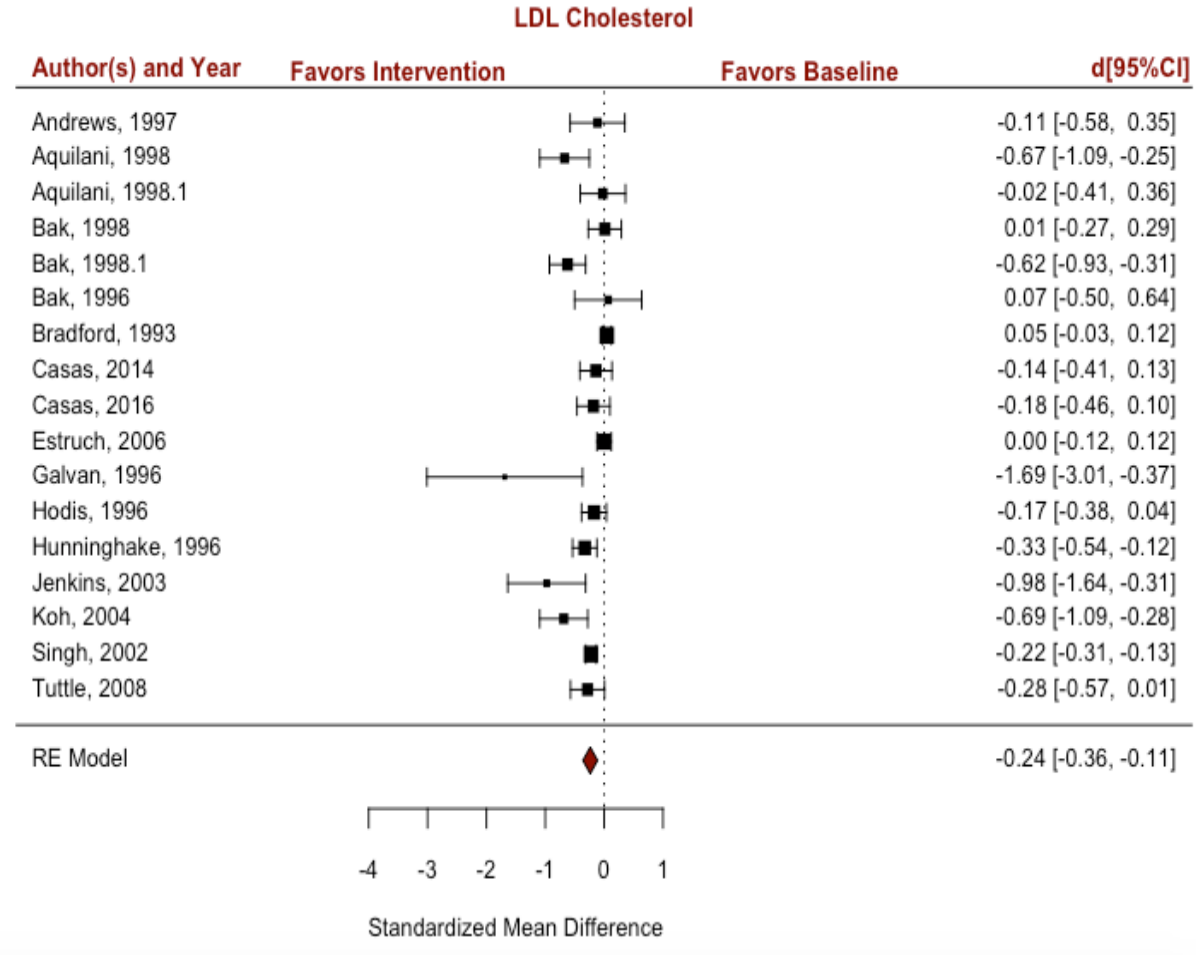
Note: Squares represent point estimates for each individual study; extended line shows 95% confidence intervals (Cis); dotted line represents the null value of zero; diamond represents the weighted mean effect size for the outcome.

Figure 8: Low-Fat Diet and Total Cholesterol Forest Plot



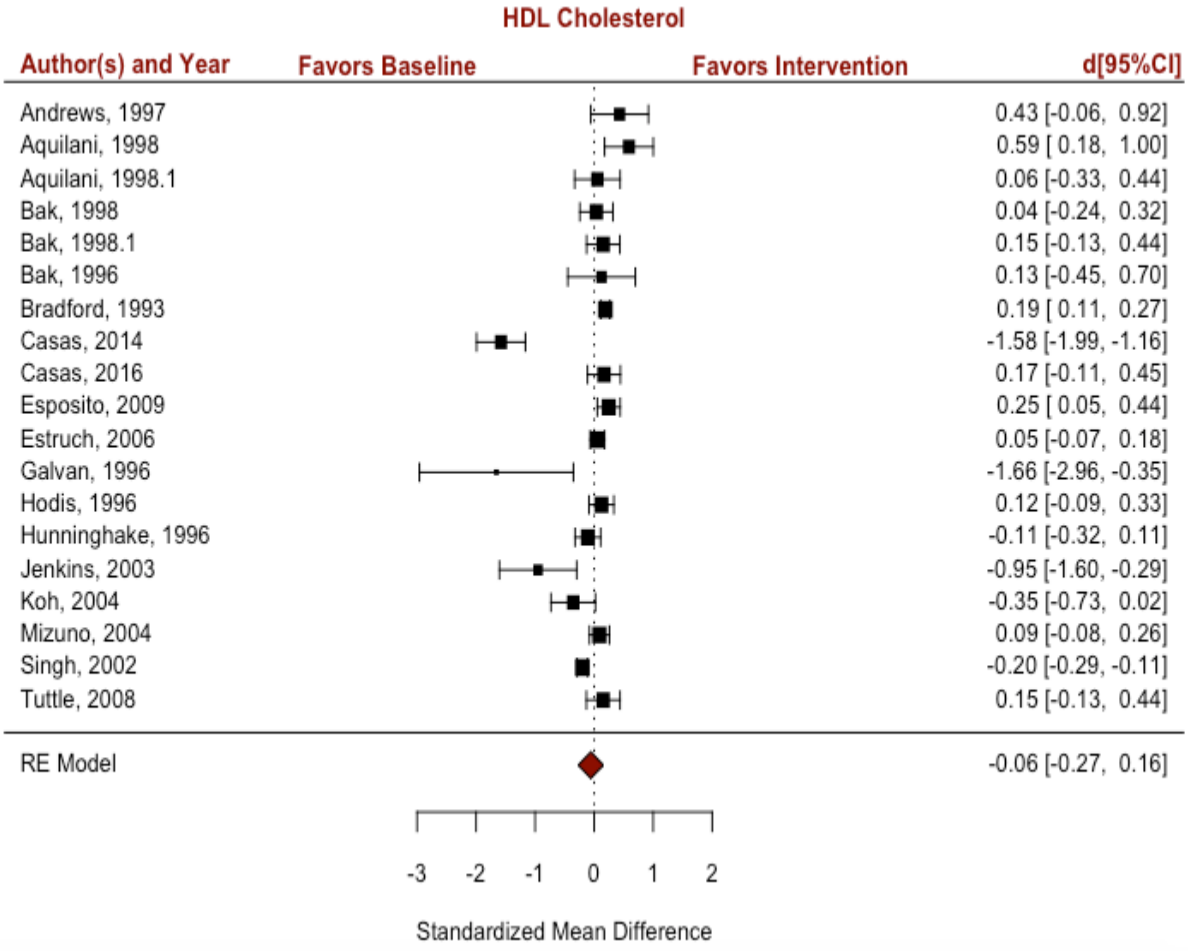
Note: Squares represent point estimates for each individual study; extended line shows 95% confidence intervals (Cis); dotted line represents the null value of zero; diamond represents the weighted mean effect size for the outcome.

Figure 9: Low-Fat Diet and LDL-Cholesterol Forest Plot



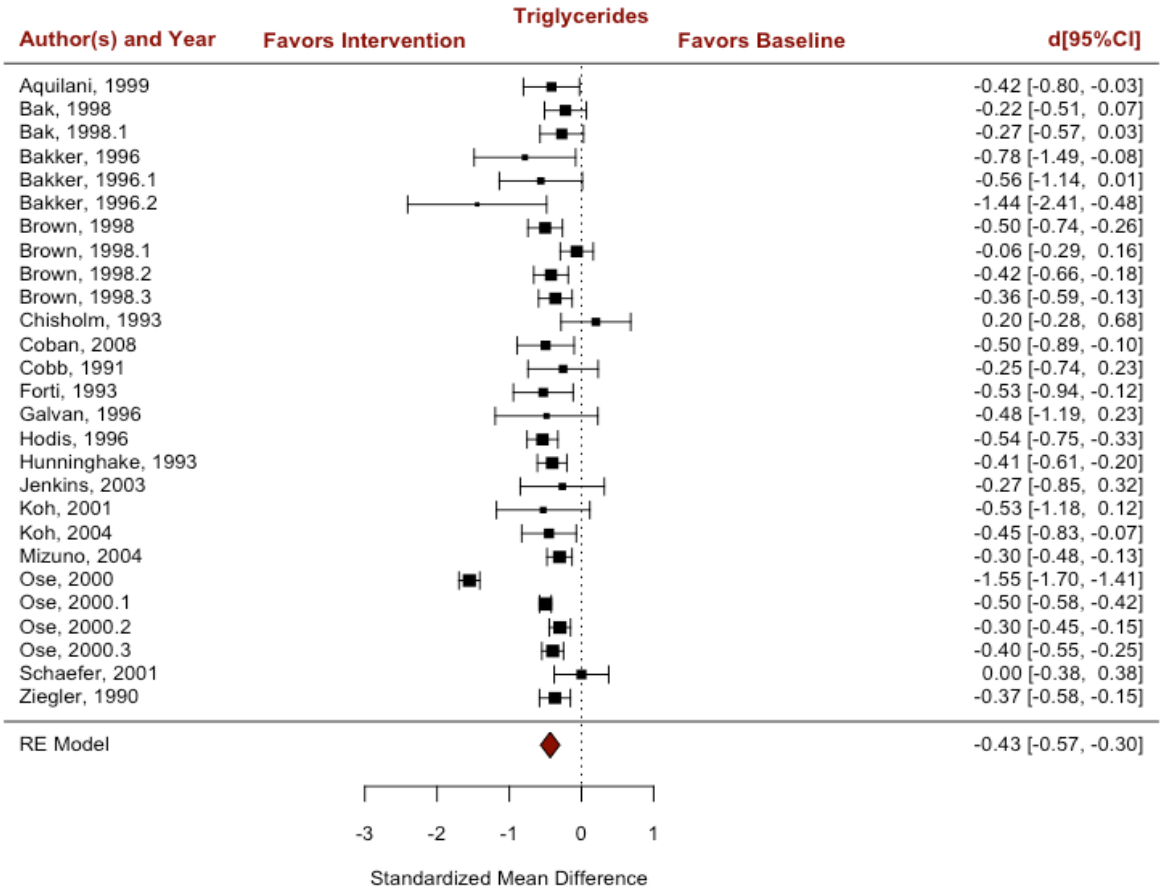
Note: Squares represent point estimates for each individual study; extended line shows 95% confidence intervals (Cis); dotted line represents the null value of zero; diamond represents the weighted mean effect size for the outcome.

Figure 10: Low-Fat Diet and HDL-Cholesterol Forest Plot



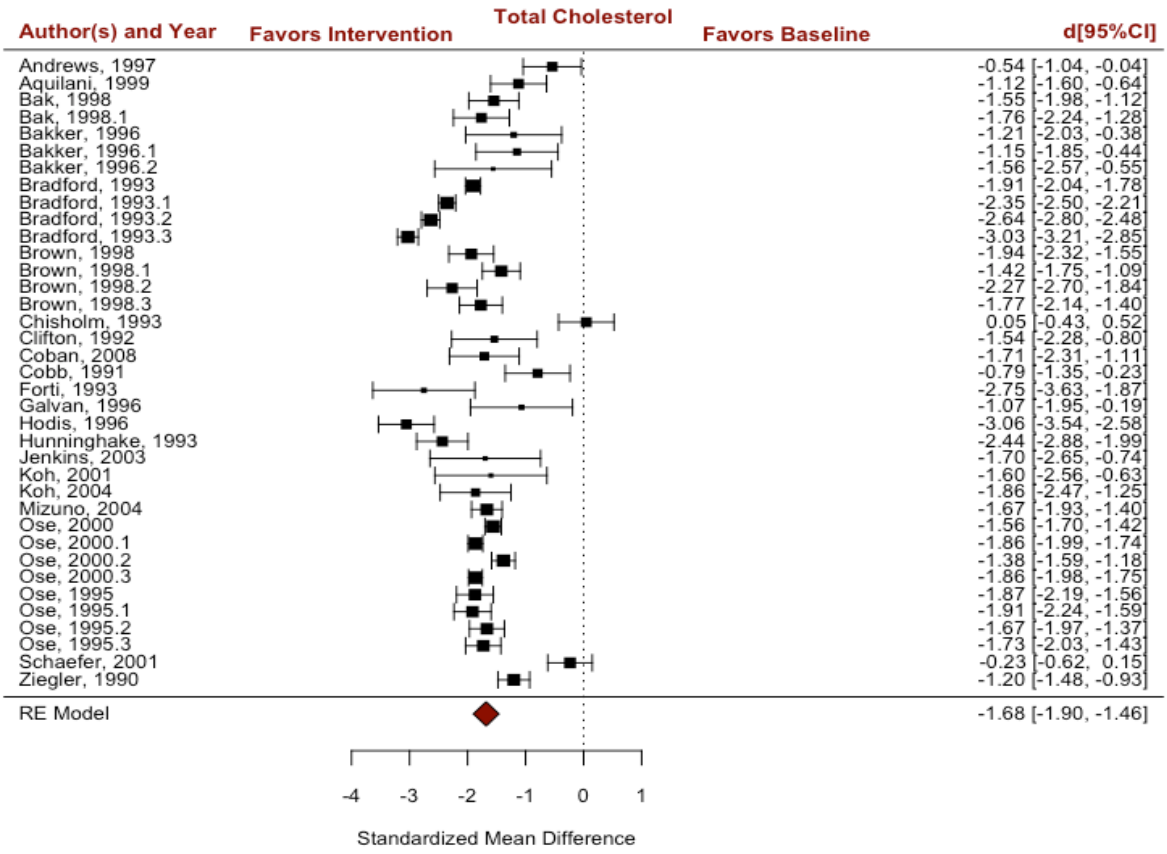
Note: Squares represent point estimates for each individual study; extended line shows 95% confidence intervals (Cis); dotted line represents the null value of zero; diamond represents the weighted mean effect size for the outcome.

Figure 11: Low-Fat Diet with Statins and Triglycerides Forest Plot



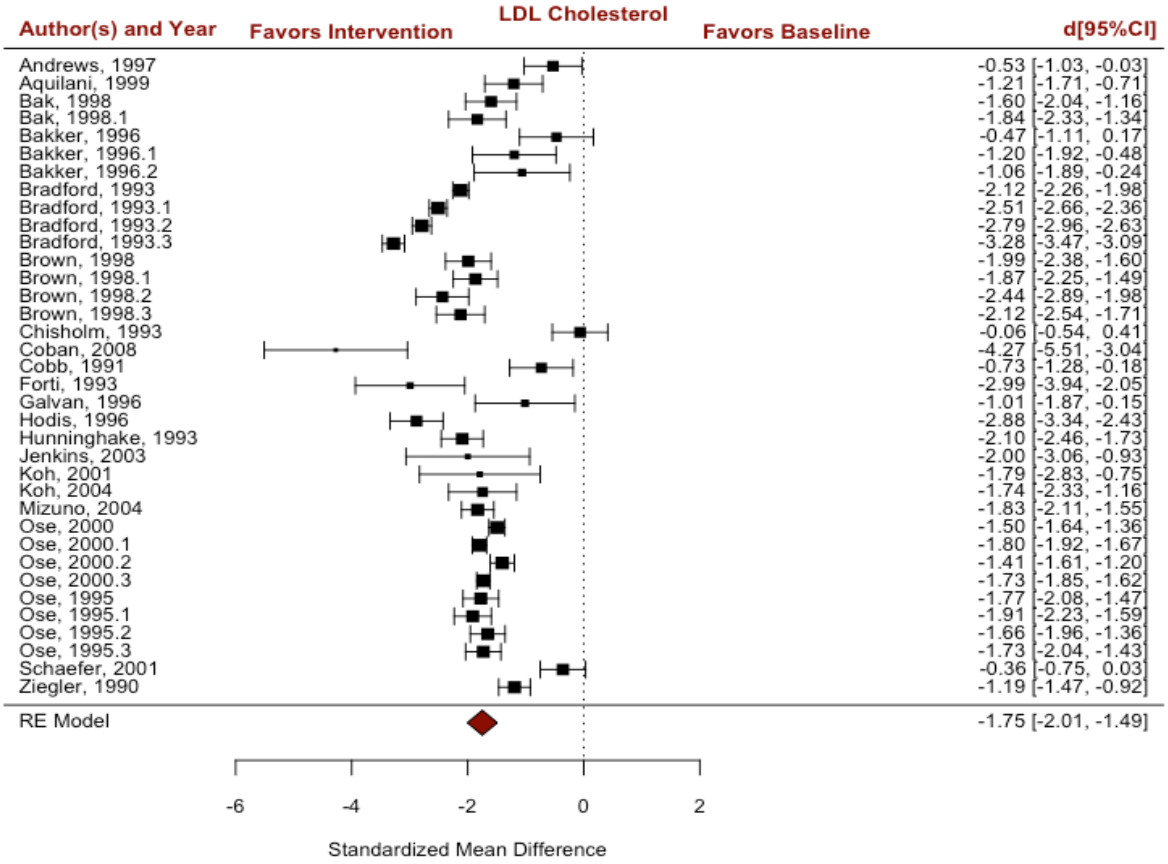
Note: Squares represent point estimates for each individual study; extended line shows 95% confidence intervals (Cis); dotted line represents the null value of zero; diamond represents the weighted mean effect size for the outcome.

Figure 12: Low-Fat Diet with Statins and Total Cholesterol Forest Plot



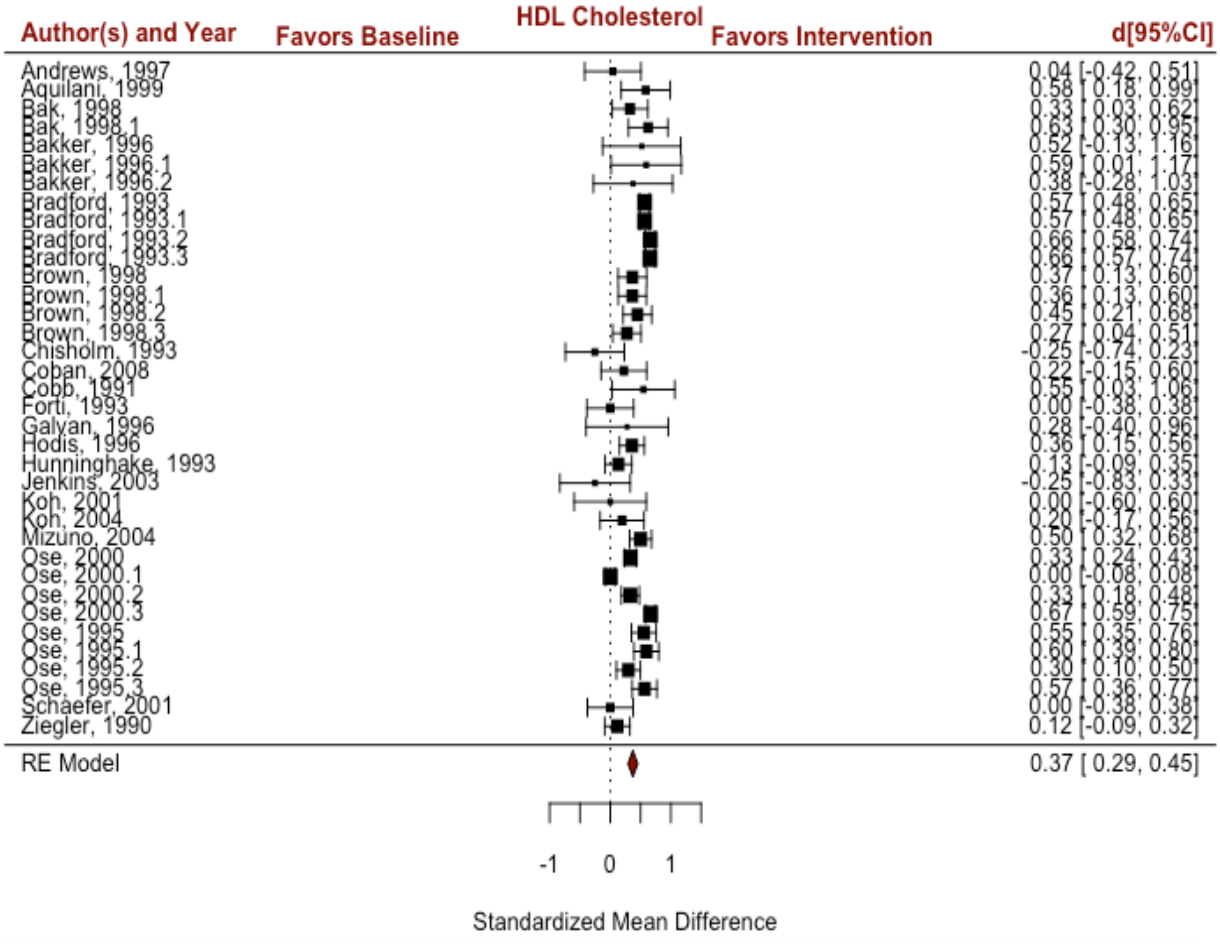
Note: Squares represent point estimates for each individual study; extended line shows 95% confidence intervals (Cis); dotted line represents the null value of zero; diamond represents the weighted mean effect size for the outcome.

Figure 13: Low-Fat Diet with Statins and LDL-Cholesterol Forest Plot



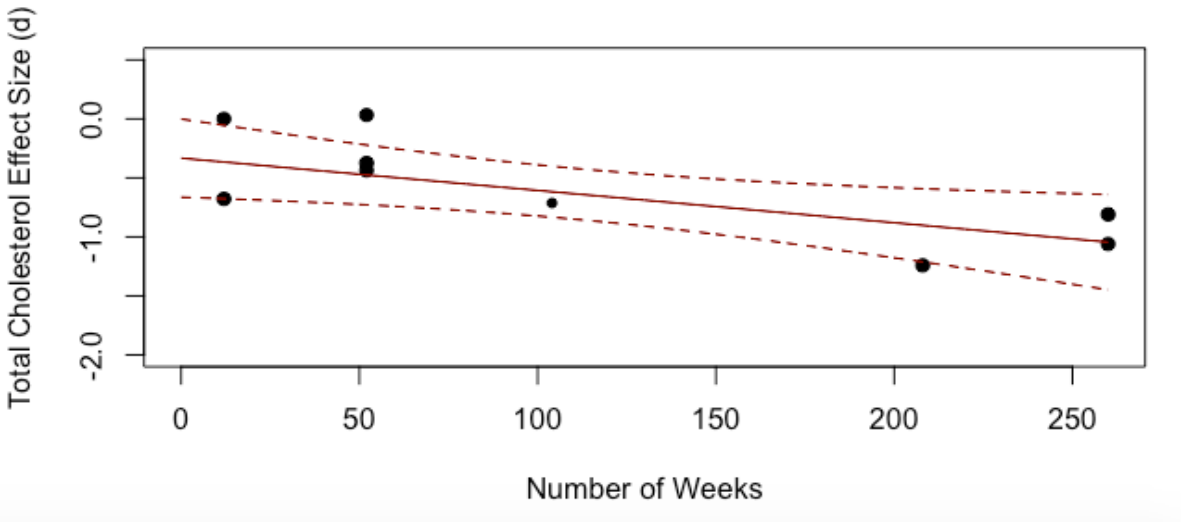
Note: Squares represent point estimates for each individual study; extended line shows 95% confidence intervals (Cis); dotted line represents the null value of zero; diamond represents the weighted mean effect size for the outcome.

Figure 14: Low-Fat Diet with Statins and HDL-Cholesterol Forest Plot



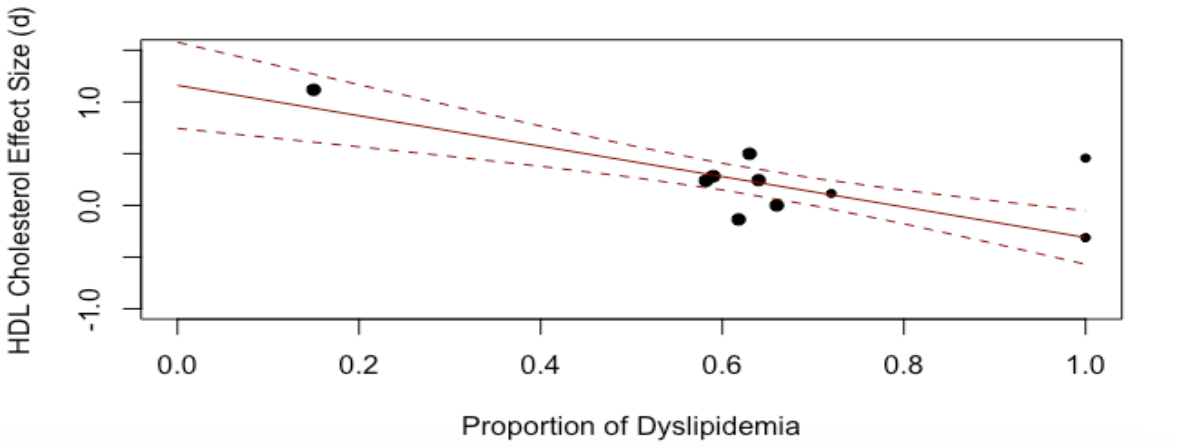
Note: Squares represent point estimates for each individual study; extended line shows 95% confidence intervals (Cis); dotted line represents the null value of zero; diamond represents the weighted mean effect size for the outcome.

Figure 15: Mediterranean Diet and Length of Intervention



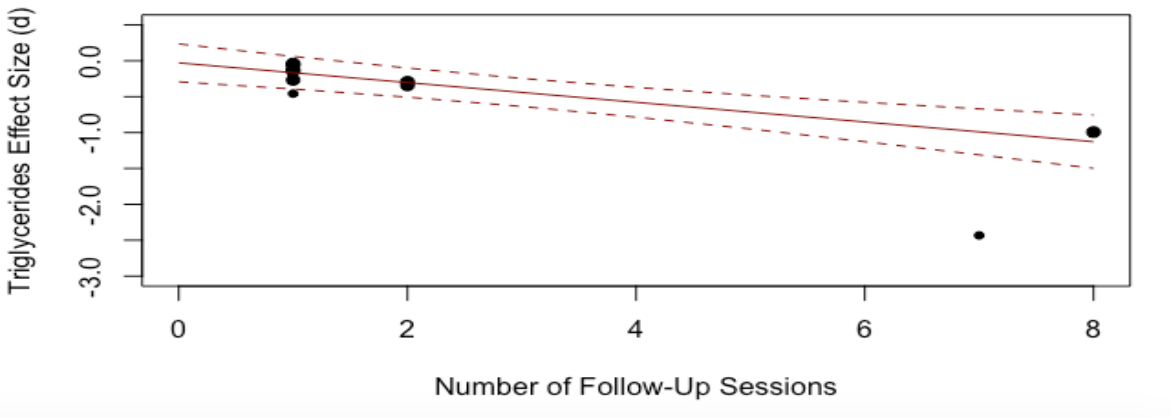
Note: Number of weeks of the interventions is represented on the x-axis; Outcome of interest is represented on the y-axis; B is the unstandardized beta and represents the amount of change in the outcome per week of the intervention; R^2 indicates the percentage of variability accounted for by length of intervention.

Figure 16: Mediterranean Diet and Proportion of Subjects with Dyslipidemia



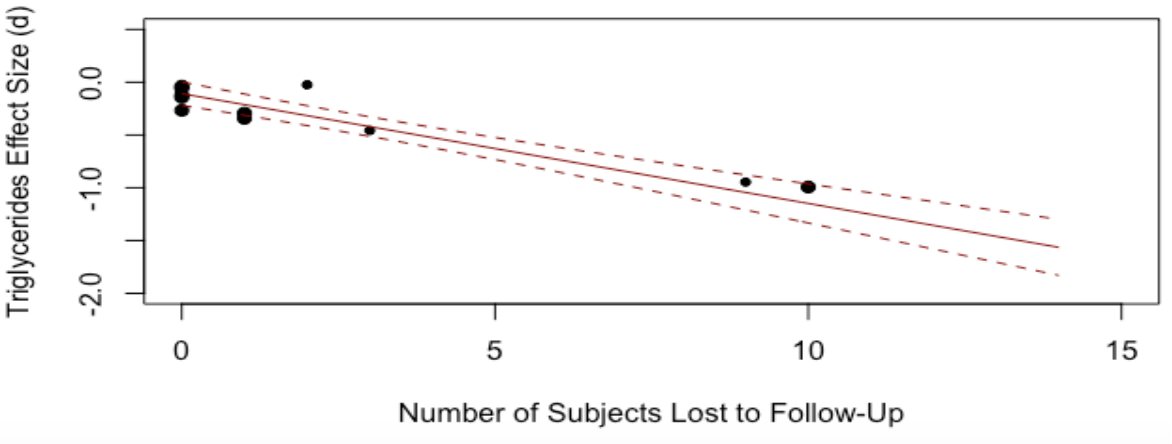
Note: Proportion of subjects with a diagnosis of dyslipidemia is represented on the x-axis; Outcome of interest is represented on the y-axis; B is the unstandardized beta and represents the amount of change in the outcome per percent of subjects with dyslipidemia; R^2 indicates the percentage of variability accounted for by subjects with dyslipidemia.

Figure 17: Mediterranean Diet and Number of Follow-Up Sessions



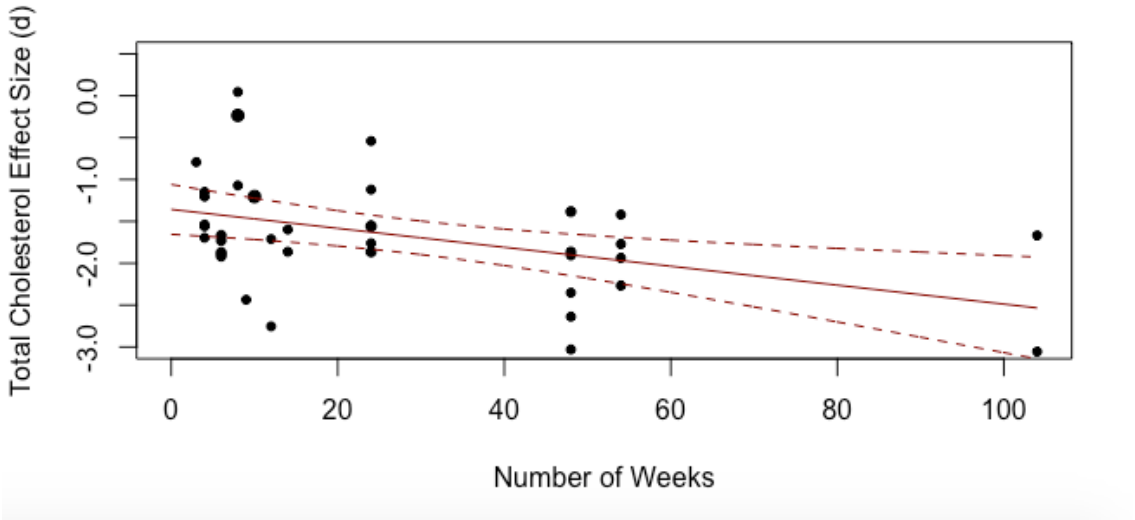
Note: Number of Follow-Up Session throughout the intervention is represented on the x-axis; Outcome of interest is represented on the y-axis; B is the unstandardized beta and represents the amount of change in the outcome per follow-up; R^2 indicates the percentage of variability accounted for by number of follow-up sessions.

Figure 18: Mediterranean Diet and Number of Subjects Lost to Follow-Up



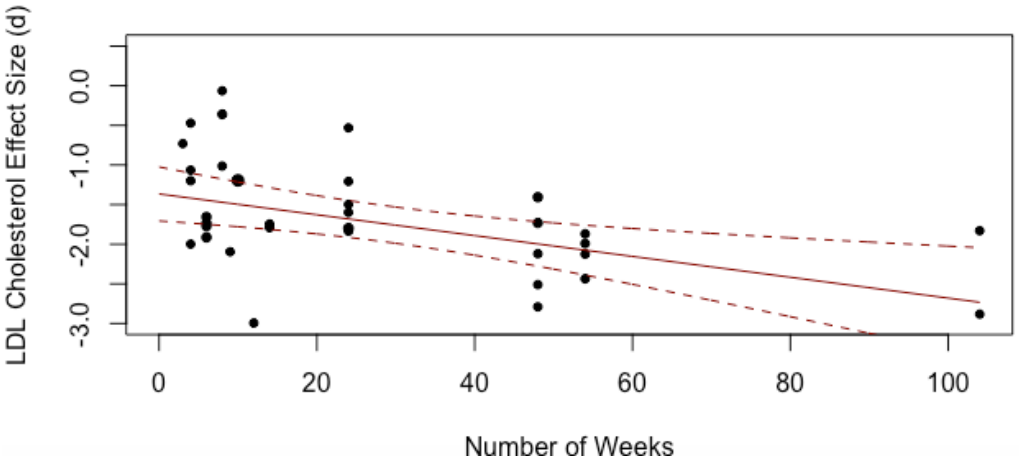
Note: Number of Subjects Lost to Follow-Up is represented on the x-axis; Outcome of interest is represented on the y-axis; B is the unstandardized beta and represents the amount of change in the outcome per lost subject; R^2 indicates the percentage of variability accounted for by number of subjects lost to follow-up.

Figure 19: Low-Fat Diet with Statins and Length of Intervention



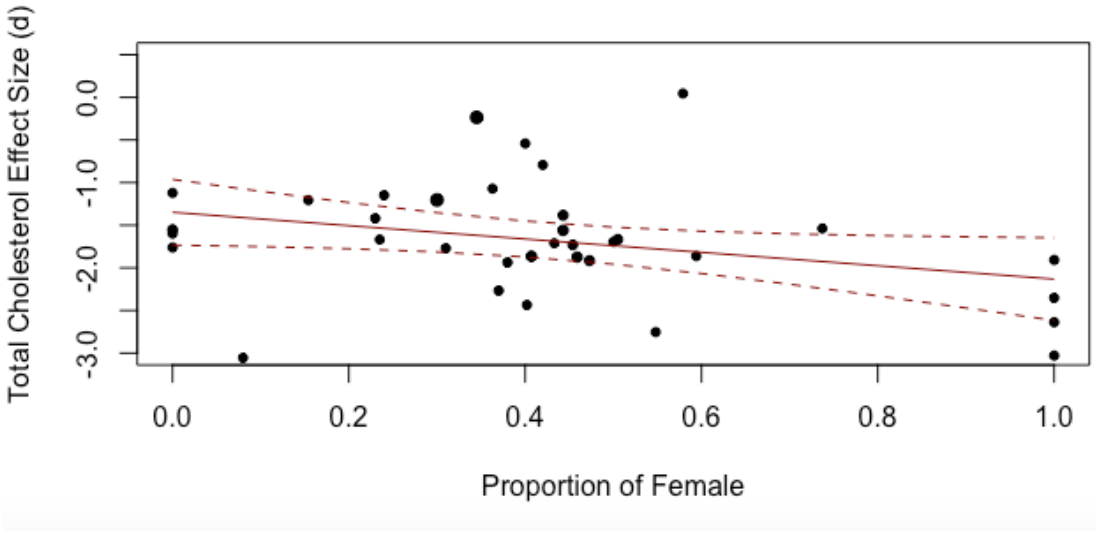
Note: Number of weeks of the interventions is represented on the x-axis; Outcome of interest is represented on the y-axis; B is the unstandardized beta and represents the amount of change in the outcome per week of the intervention; R^2 indicates the percentage of variability accounted for by length of intervention.

Figure 20: Low-Fat Diet with Statins and Length of Intervention



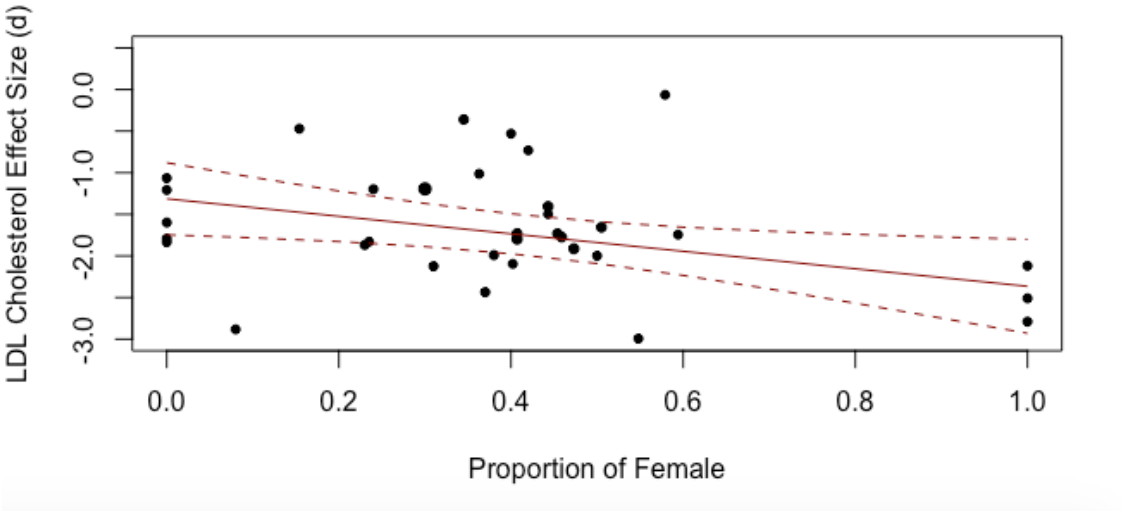
Note: Number of weeks of the interventions is represented on the x-axis; Outcome of interest is represented on the y-axis; B is the unstandardized beta and represents the amount of change in the outcome per week of the intervention; R^2 indicates the percentage of variability accounted for by length of intervention.

Figure 21: Low-Fat Diet with Statins and Proportion of Female Subjects



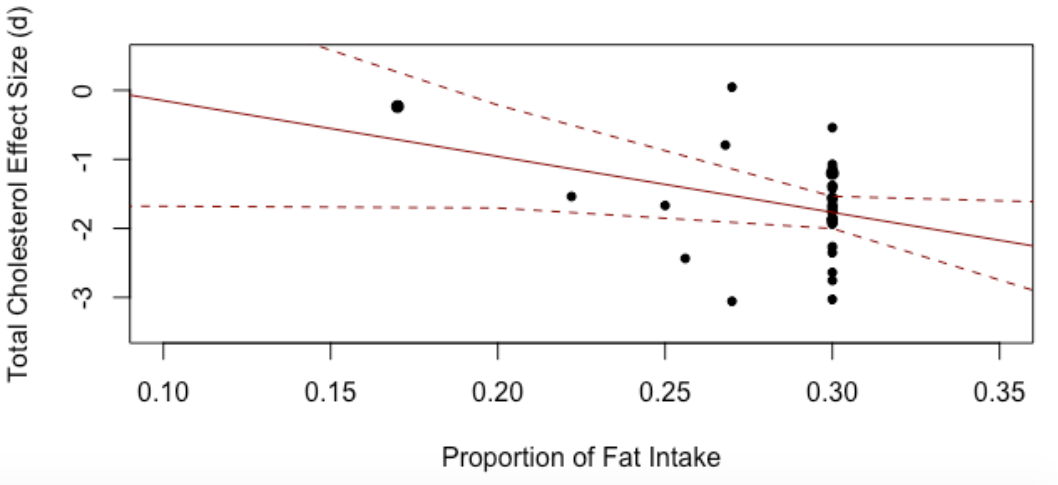
Note: Proportion of females is represented on the x-axis; Outcome of interest is represented on the y-axis; B is the unstandardized beta and represents the amount of change in the outcome per percent increase in female subjects; R^2 indicates the percentage of variability accounted for by proportion of females.

Figure 22: Low-Fat Diet with Statins and Proportion of Female Subjects



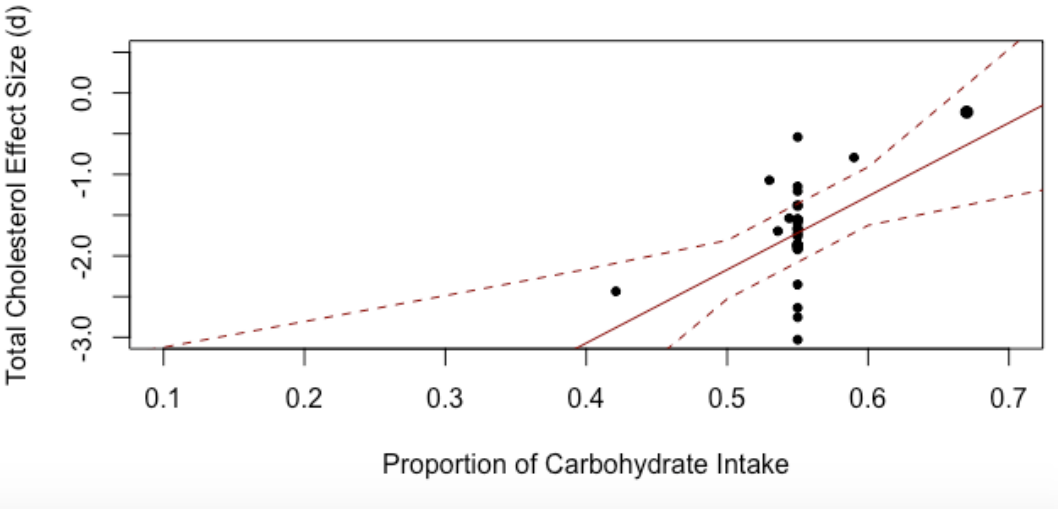
Note: Proportion of females is represented on the x-axis; Outcome of interest is represented on the y-axis; B is the unstandardized beta and represents the amount of change in the outcome per percent increase in female subjects; R^2 indicates the percentage of variability accounted for by proportion of females.

Figure 23: Low-Fat Diet with Statins and Recommended Proportion of Fat Intake



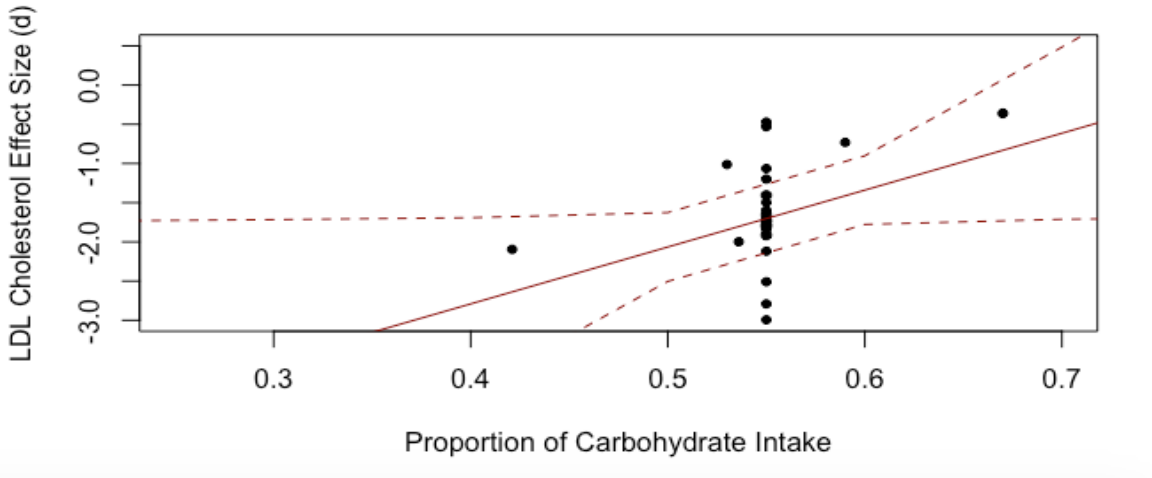
Note: Proportion of fat intake is represented on the x-axis; Outcome of interest is represented on the y-axis; B is the unstandardized beta and represents the amount of change in the outcome per percent increase in fat intake recommendation; R^2 indicates the percentage of variability accounted for by proportion of fat intake.

Figure 24: Low-Fat Diet with Statins and Recommended Proportion of Carbohydrate Intake



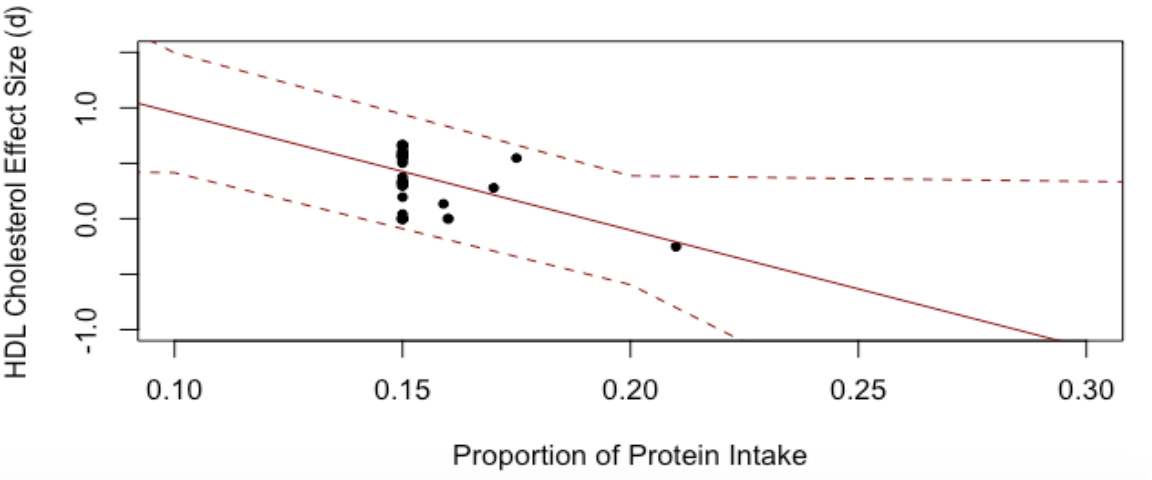
Note: Proportion of carbohydrate intake is represented on the x-axis; Outcome of interest is represented on the y-axis; B is the unstandardized beta and represents the amount of change in the outcome per percent increase in carbohydrate intake recommendation; R^2 indicates the percentage of variability accounted for by proportion of carbohydrate intake.

Figure 25: Low-Fat Diet with Statins and Recommended Proportion of Carbohydrate Intake



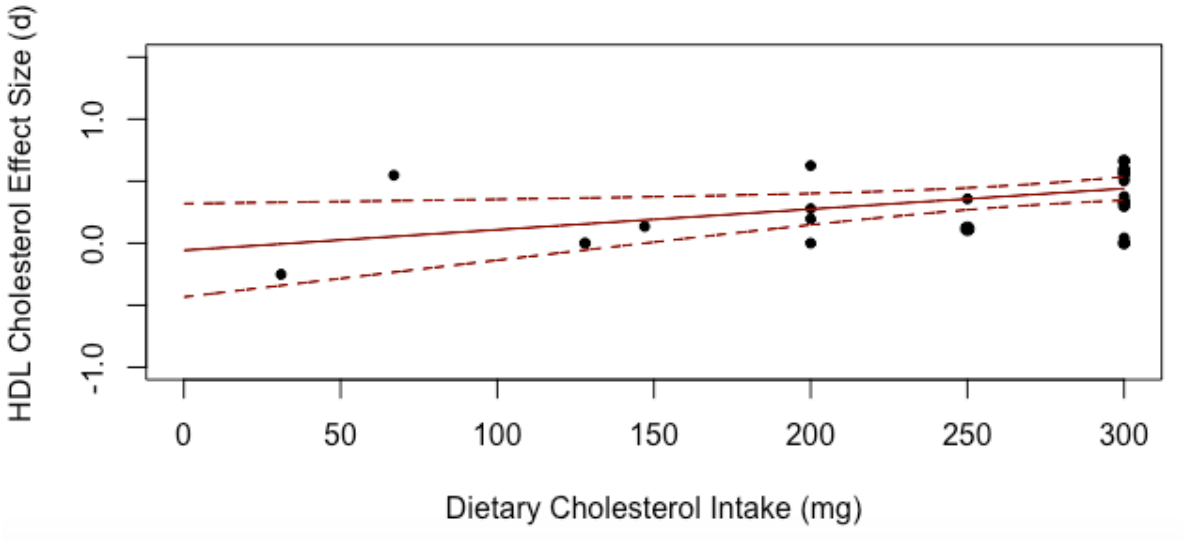
Note: Proportion of carbohydrate intake is represented on the x-axis; Outcome of interest is represented on the y-axis; B is the unstandardized beta and represents the amount of change in the outcome per percent increase in carbohydrate intake recommendation; R^2 indicates the percentage of variability accounted for by proportion of carbohydrate intake.

Figure 26: Low-Fat Diet with Statins and Recommended Proportion of Protein Intake



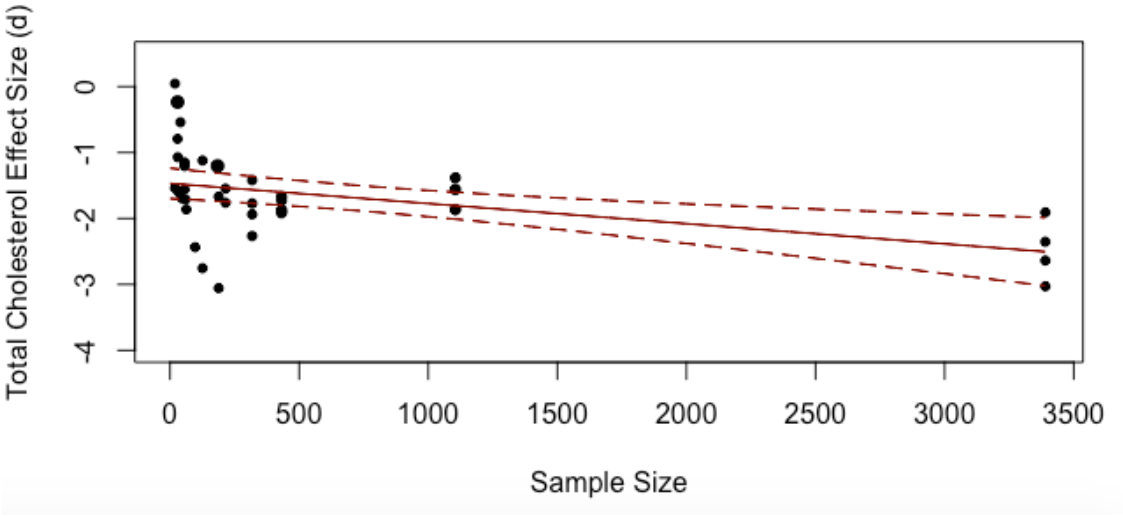
Note: Proportion of protein intake is represented on the x-axis; Outcome of interest is represented on the y-axis; B is the unstandardized beta and represents the amount of change in the outcome per percent increase protein intake recommendation; R^2 indicates the percentage of variability accounted for by proportion of protein intake.

Figure 27: Low-Fat Diet with Statins and Recommended Dietary Cholesterol Intake



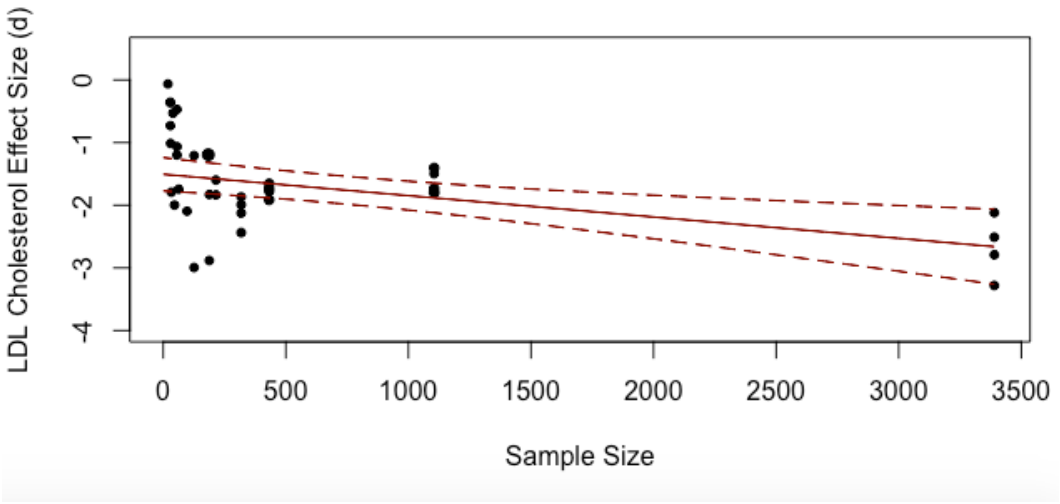
Note: Recommended dietary cholesterol intake is represented on the x-axis; Outcome of interest is represented on the y-axis; B is the unstandardized beta and represents the amount of change in the outcome per milligram change in cholesterol intake recommendation; R^2 indicates the percentage of variability accounted for by recommended dietary cholesterol intake.

Figure 28: Low-Fat Diet with Statins and Sample Size



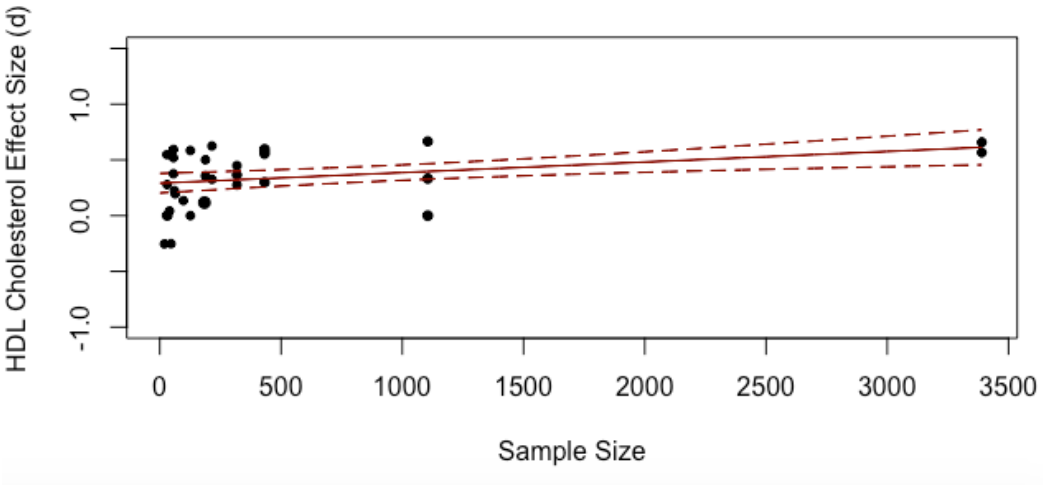
Note: Sample size is represented on the x-axis; Outcome of interest is represented on the y-axis; B is the unstandardized beta and represents the amount of change in the outcome per change in number of subjects; R^2 indicates the percentage of variability accounted for by sample size.

Figure 29: Low-Fat Diet with Statins and Sample Size



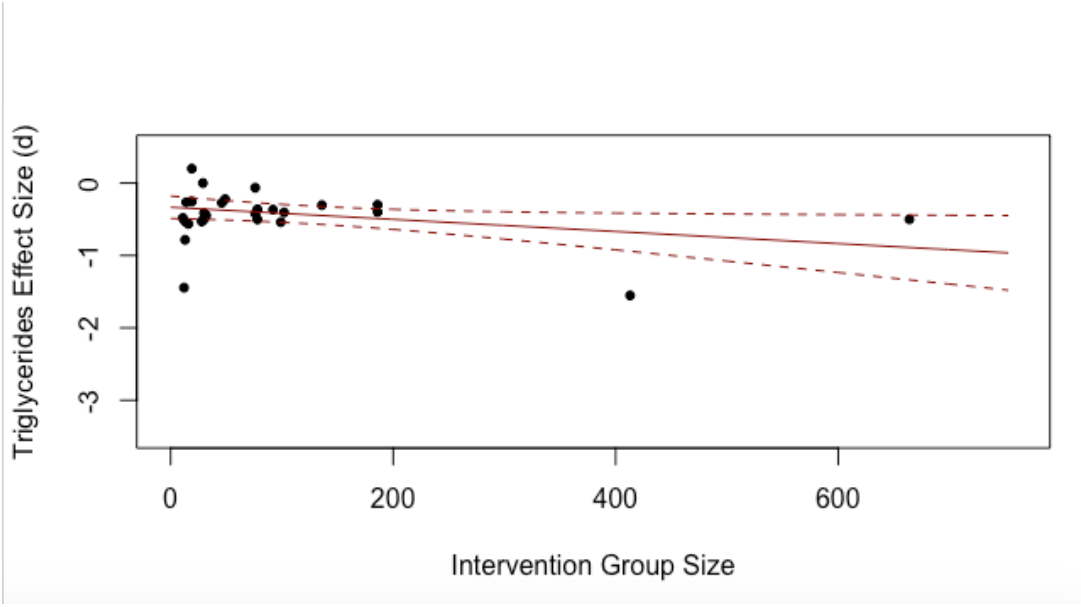
Note: Sample size is represented on the x-axis; Outcome of interest is represented on the y-axis; B is the unstandardized beta and represents the amount of change in the outcome per change in number of subjects; R^2 indicates the percentage of variability accounted for by sample size.

Figure 30: Low-Fat Diet with Statins and Sample Size



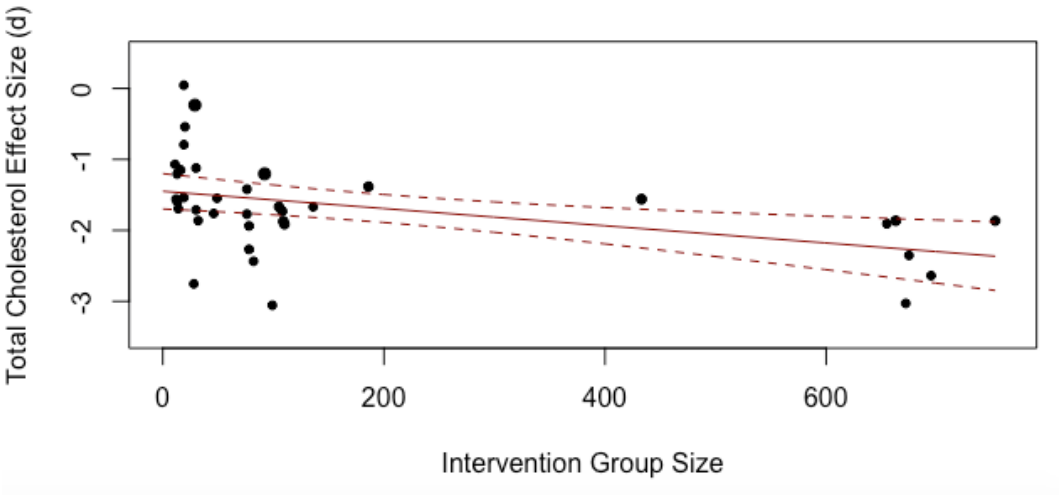
Note: Sample size is represented on the x-axis; Outcome of interest is represented on the y-axis; B is the unstandardized beta and represents the amount of change in the outcome per change in number of subjects; R^2 indicates the percentage of variability accounted for by sample size.

Figure 31: Low-Fat Diet with Statins and Intervention Group Size



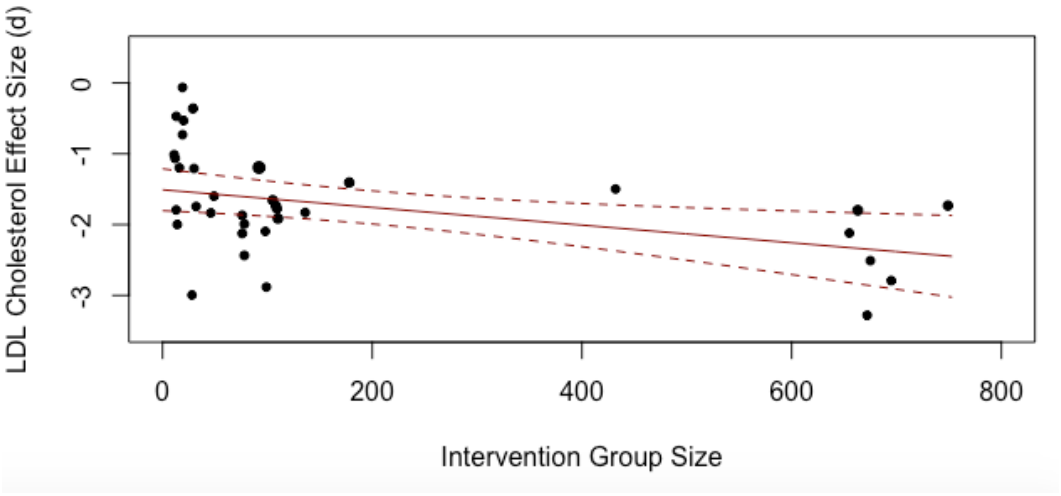
Note: Intervention group size is represented on the x-axis; Outcome of interest is represented on the y-axis; B is the unstandardized beta and represents the amount of change in the outcome per change in number of subjects; R^2 indicates the percentage of variability accounted for by intervention group size.

Figure 32: Low-Fat Diet with Statins and Intervention Group Size



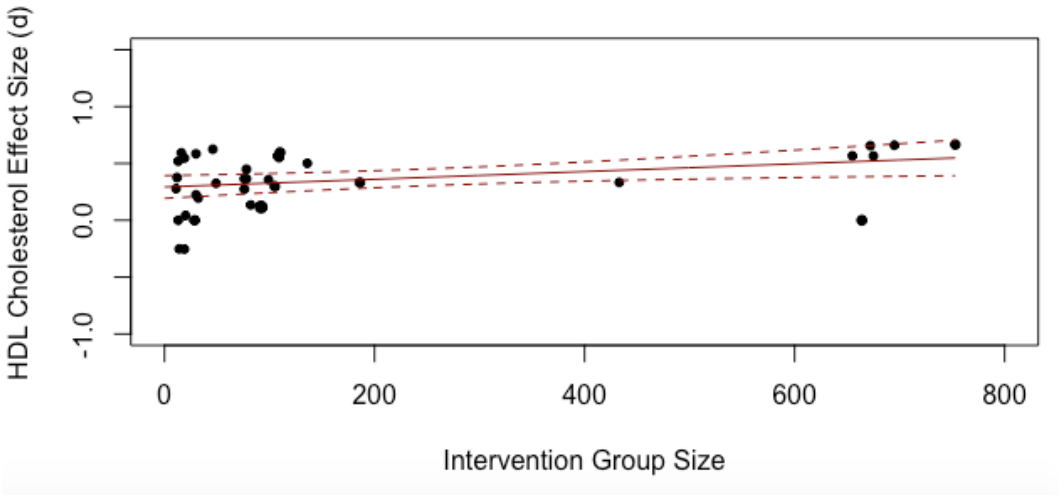
Note: Intervention group size is represented on the x-axis; Outcome of interest is represented on the y-axis; B is the unstandardized beta and represents the amount of change in the outcome per change in number of subjects; R^2 indicates the percentage of variability accounted for by intervention group size.

Figure 33: Low-Fat Diet with Statins and Intervention Group Size



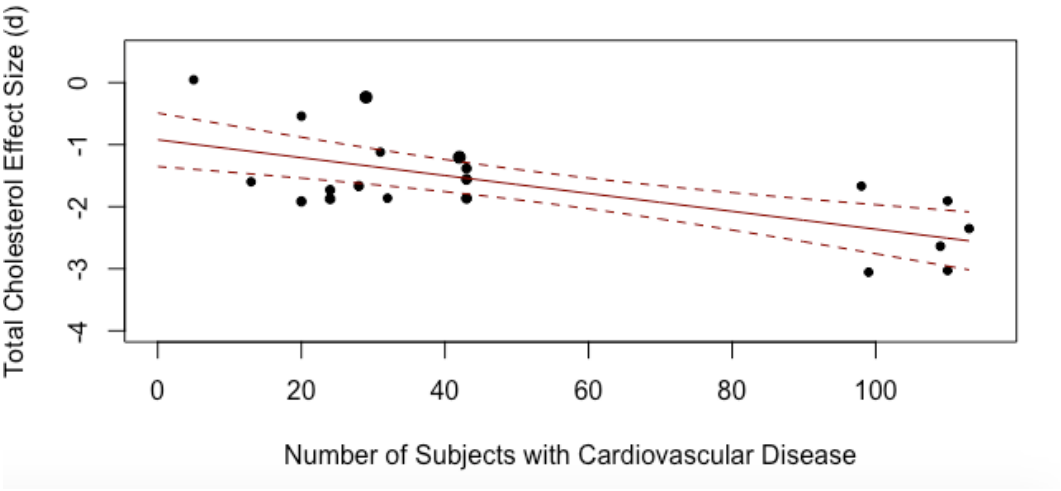
Note: Intervention group size is represented on the x-axis; Outcome of interest is represented on the y-axis; B is the unstandardized beta and represents the amount of change in the outcome per change in number of subjects; R^2 indicates the percentage of variability accounted for by intervention group size.

Figure 34: Low-Fat Diet with Statins and Intervention Group Size



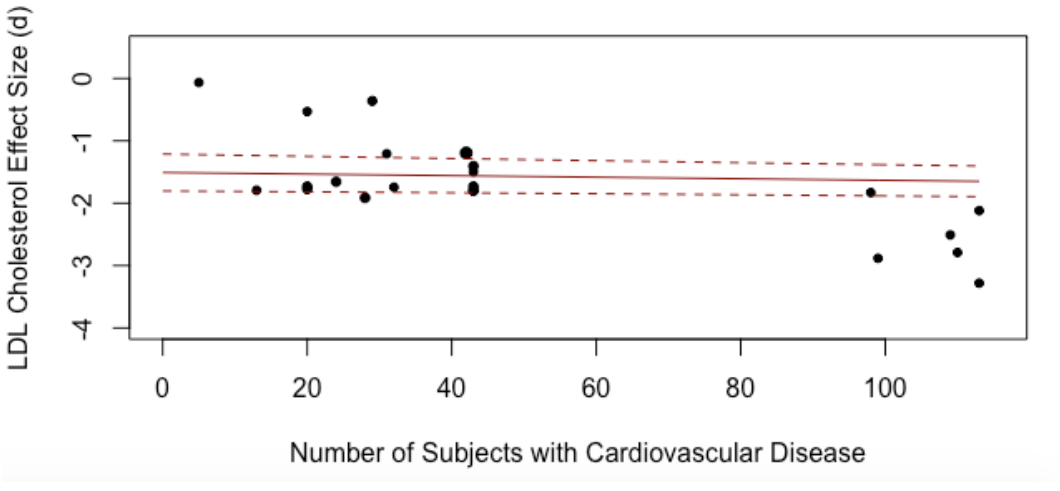
Note: Intervention group size is represented on the x-axis; Outcome of interest is represented on the y-axis; B is the unstandardized beta and represents the amount of change in the outcome per change in number of subjects; R^2 indicates the percentage of variability accounted for by intervention group size.

Figure 35: Low-Fat Diet with Statins and Subjects with Cardiovascular Disease



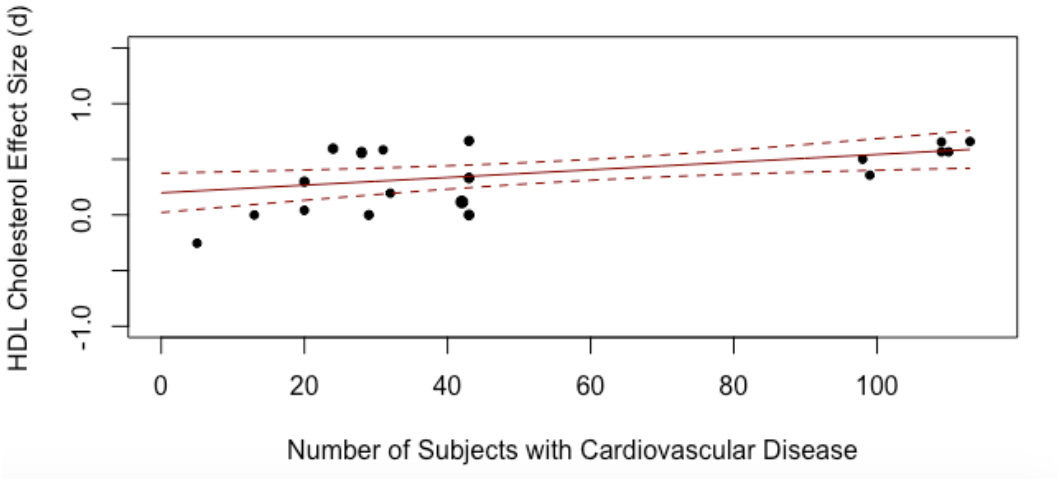
Note: Number of subjects with cardiovascular disease is represented on the x-axis; Outcome of interest is represented on the y-axis; B is the unstandardized beta and represents the amount of change in the outcome per change in number of subjects with cardiovascular disease; R^2 indicates the percentage of variability accounted for by number of subjects with cardiovascular disease.

Figure 36: Low-Fat Diet with Statins and Subjects with Cardiovascular Disease



Note: Number of subjects with cardiovascular disease is represented on the x-axis; Outcome of interest is represented on the y-axis; B is the unstandardized beta and represents the amount of change in the outcome per change in number of subjects with cardiovascular disease; R^2 indicates the percentage of variability accounted for by number of subjects with cardiovascular disease.

Figure 37: Low-Fat Diet with Statins and Subjects with Cardiovascular Disease



Note: Number of subjects with cardiovascular disease is represented on the x-axis; Outcome of interest is represented on the y-axis; B is the unstandardized beta and represents the amount of change in the outcome per change in number of subjects with cardiovascular disease; R^2 indicates the percentage of variability accounted for by number of subjects with cardiovascular disease.

Figure 38: Mediterranean Diet Risk of Bias

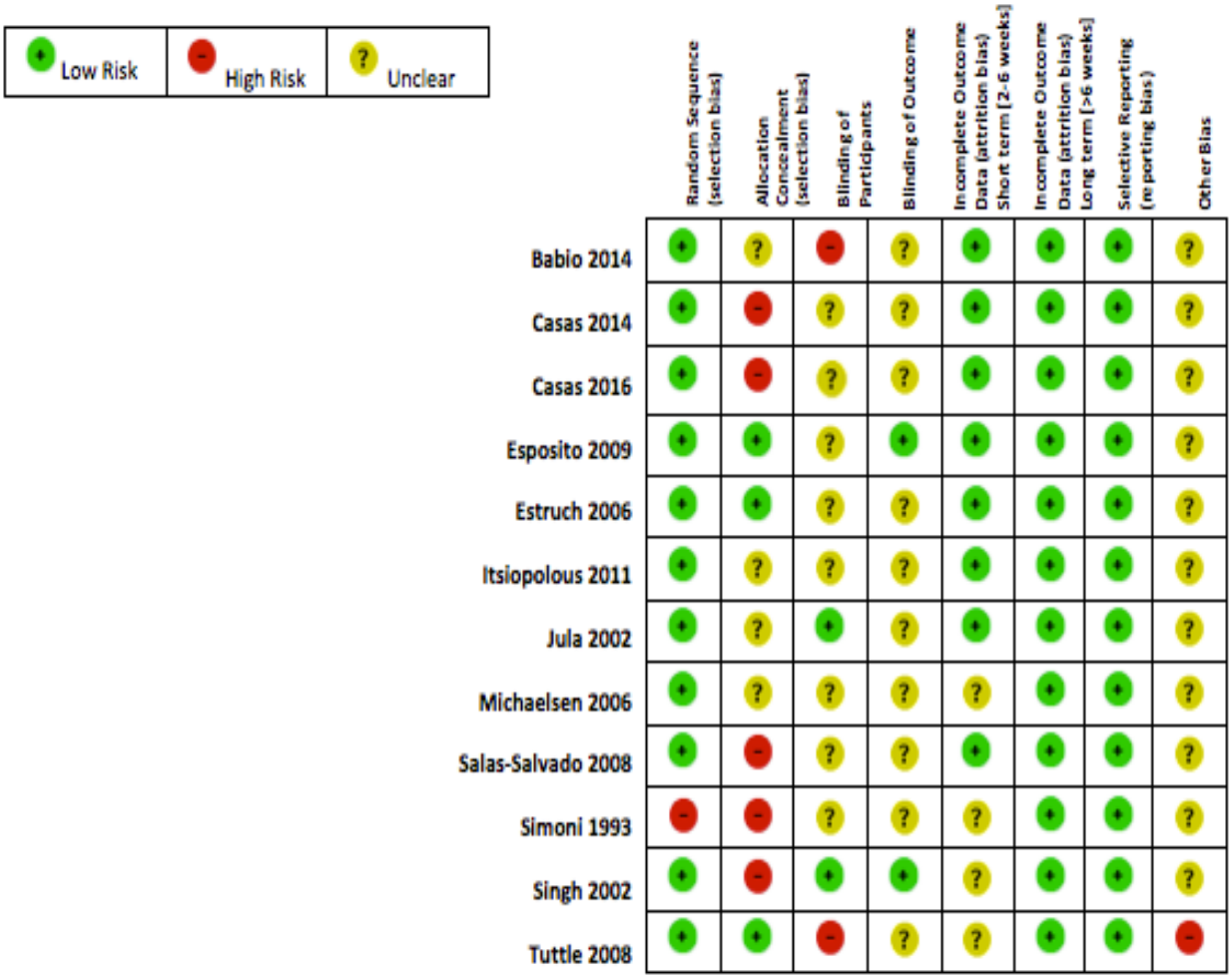


Figure 39: Low-Fat Diet Risk of Bias

Tables

Table 1: Description of Included Mediterranean Diet Studies

Study	Country	*N*	% F	Age	Diseases	Recruitment	Dietary Assessment	Type of Diet	Duration (weeks)	Control	Outcome
Babio, et al (2014)[102]	Spain	5801	58%	67	T2DM, CVDRF	Physician Referral	Individual & Group Unsupervised	MDN, MDO	250	LFD	MetS
Casas, et al (2014)[48]	Spain	165	53%	67.7	T2DM, CVDRF	Physician Referral	Individual & Group, Unsupervised	MDN, MDO	52	LFD	CVDRF, inflam bio, BG
Casas, et al (2016)[103]	Spain	45	53%	66	T2DM, CVDRF	Physician Referral	Individual & Group, Unsupervised	MDN, MDO	260	LFD	IDDM, CVDRF
Esposito, et al (2009)[104]	Italy	215	51%	52.2	OverWT, NIDDM, CVDRF	Clinical Practice of Investigators Referral	Individual, Unsupervised	HypoMD, low CHO	208	HypoLFD	IDDM, CVDRF
Estruch, et al (2006)[105]	Spain	772	56%	68.9	CVDRF, T2DM, OverWT/Ob	Primary physician referral	Individual & Group, Unsupervised	MDN, MDO	12	LFD	CVDRF, inflam bio, IR
Itsiopoulos, et al (2010)[106]	Australia	27	41%	59	IDDM, NIDDM, CVDRF, Ob (59%)	Newspaper ad	Individual, Unsupervised	MD	24	Habitual Diet	HbA1c, IR, CVDRF, inflam bio
Jula, et al (2016)[107]	Finland	120	0%	48.2	High Chol, High TG	Occupational Health Services	Individual & Group, Unsupervised	MD	12	Habitual Diet	Serum lipids, IR, BG
Michalsen, et al (2005)[108]	Germany	101	23%	59.4	CAD (100%)	Hospital referral, advertisement	Group, Unsupervised	MD immersive education	52	MD written materials only	Inflam bio, CVDRF
Salas-Salvado, et al (2008)[109]	Spain	1224	53%	67.4	T2DM, CVDRF	Primary Physician referral	Individual & Group, Unsupervised	MDO, MDN	52	LFD	MetS, MS RF
Simoni, et al (1994)[110]	Italy	12	42%	70	High serum lipids, Lp(a)	Subsample of an Unnamed Study	Unsupervised	MD	8	None	Serum lipids, Lp(a)
Singh, et al (2002)[111]	India	1000	NR	48.5	Angina, MI, T2DM, HTN, CVDRF	Advertisement	Individual, Unsupervised	MDN	104	NCEP diet	Cardiac events, MI, CVDRF
Tuttle, et al (2008)[112]	USA	101	36%	58	MI (100%), T2DM, CVDRF	Physician referral	Individual, Unsupervised	MD	104	LFD	Cardiac events, MI, CD, CVDRF

Note. N, number of participants at baseline; F, females; T2DM, Type 2 Diabetes Mellitus; NR, not reported; MDN, Mediterranean diet with nuts supplemented; MDO, Mediterranean diet with olive oil supplemented; LFd, low fat; MetS, Metabolic Syndrome; CVDRF, Cardiovascular Disease risk factors; inflam bio, inflammatory biomarkers; IDDM, Insulin Dependent Diabetes Mellitus; OverWT, Overweight; Ob, Obese; IR, Insulin Resistance; NIDDM, Non-insulin Dependent Diabetes Mellitus; Chol, cholesterol; TG, Triglycerides; BG, Blood Glucose; CAD, Coronary Artery Disease; Lp(a), lipoprotein-a; MI, Myocardial Infarction; HTN, Hypertension; NCEP, National Cholesterol Education Program diet; CD, cardiac death; HypoMD, hypocaloric Mediterranean diet; CHO, carbohydrate; HypoLFD, hypocaloric low-fat.

Table 2: Description of Included Low-Fat Diet Studies

Study	Country	*N*	% F	Age	Diseases	Recruitment	Dietary Assessment	Type of Diet	Duration (weeks)	Control	Outcome
Andrews, et al (1997)[113]	USA	40	30%	67	CAD, HLD, DM	NR	Individual, Unsupervised	AHA Step 1 Statin	24	AHA Step 1	Serum lipids, ischemia
Aquilani, et al (1998)[114]	Italy	126	0%	57.2	CAD, HLD	Outpt referral	Individual, Unsupervised	VLFD, AHA Step 1, AHA Step 2 Statin	24	Hypocaloric Diet Statin	Serum lipids
Bak, et al (1998)[115]	The Netherlands	215	0%	55.1	HLD	Population-based Screening Program	Individual, Unsupervised	AHA Step 1 Statin, AHA Step 2 Statin	24	AHA Step 1 Placebo, AHA Step 2 Placebo	Serum lipids
Bakker-Arkema, et al (1996)[116]	USA and Canada	56	14%	51	HLD	Study Centers	Individual, Unsupervised	AHA Step 1 Statin	4	AHA Step 1 Placebo	Serum lipids
Bradford, et al (1993)[117]	USA	3390	100%	58.4	HTN, CAD, DYS	Clinical Centers	Unsupervised	AHA Step 1 Statin	48	AHA Step 1 Placebo	Serum lipids
Brown, et al (1998)[118]	USA	318	32%	64	ASCVD, HLD	Primary/ Secondary Care Referral	Group, Unsupervised	AHA Step 1, AHA Step 2	54	None	Serum lipids
Chisholm, et al (1994)[119]	New Zealand	19	58%	51	FH, HLD	Lipid Clinic	Individual & Group, Unsupervised	LFD Statin	32	HFD Statin	Serum lipids
Clifton, et al (1991)[120]	Australia	19	74%	55	HLD, HTN	Lipid Clinic, advertisement	Individual, Unsupervised	LFD, LFD Statin	20	HFD, HFD Statin	Serum lipids
Coban, et al (2007)[121]	Turkey	30	43%	48	High MPV, DYS	Primary Physician referral	Unsupervised	LFD Statin	12	Habitual Diet	Serum lipids, MPV
Cobb, et al (1991)[83]	USA	29	41%	53	HLD	NR	Individual, Unsupervised	LFD, LFD Statin, HFD, HFD Statin	20	LFD Placebo, HFD Placebo	Serum lipids
Forti (1993)[122]	Brazil	126	55%	56	HLD	Physician Referral	Individual, Unsupervised	LFD	12	None	Serum lipids, BG
Galvan, et al (1996)[123]	Italy	20	35%	44.7	FH	Lipid Clinic	Individual, Unsupervised	LFD Statin, LFD	8	LFD Placebo	Serum lipids, BG, IR
Hodis, et al (1996)[124]	USA	188	8%	58	HTN, CAD, 50% stenosis	MARS study	Individual, Unsupervised	LFD Statin, LCD Statin	208	LFD, LCD Placebo	CAIMT, serum lipids
Hunninghake, et al (1993)[125]	USA	111	40%	54	HLD	Lipid Clinic, advertisement	Individual, Unsupervised	AHA Step 2 statin and Placebo, HFD Statin	36	HFD Placebo	Serum lipids
Jenkins, et al (2003)[126]	Canada	46	46%	59	DYS	Outpt care referral, News Ad	Individual, Unsupervised	High PS, Soy protein, fiber, almonds	4	LFD w/ WG	CRP,CHD Risk, Serum lipids

Koh, et al (2001)[127]	South Korea	13	NR	67	DYS	Canadian Cardiovascular Society	Individual, Unsupervised	AHA Step 2 Statin	14	AHA Step 2	Serum lipids, inflam bio
Koh, et al (2004)[128]	South Korea	63	41%	62	HTN, DM, CAD	Canadian Cardiovascular Society	Individual, Unsupervised	AHA Step 1 Statin	14	AHA Step 1 Placebo	Inflam bio, ICAM-1, mitrate, MDA
Mizuno, et al (2004)[129]	Japan	299	23%	58.7	ASCVD, HLD	Hospital Referral	Individual, Unsupervised	LFD Statin	104	LFD	Serum lipids, MOD, MSD
Ose, et al (2000)[130]	USA	1105	42%	52.8	HLD	NR	Individual, Unsupervised	AHA Step 1 Statin	48	None	Serum lipids
Ose, et al (1995)[131]	Norway	432	47%	52.6	HLD, CHD	NR	Unsupervised	LFD Statin	6	LFD Placebo	Serum lipids
Schafer, et al (2001)[132]	USA	47	31%	61	CHD, OverWt/ Ob, DYS	NR	Individual, Unsupervised	VLFD, LCD Statin	10	None	Serum lipids
Ziegler, et al (1990)[133]	France	184	30%	46	HLD	NR	Individual, Unsupervised	LFD	10	None	Serum lipids

Note. N, number of participants at baseline; F, females; CAD, Coronary Artery Disease; High Chol, High Total and LDL Cholesterol; HLD, Hyperlipidemia; DM, Diabetes Mellitus; NR, not reported; AHA step 1 or 2, American Heart Association Step 1 or Step 2 Diet; Chol, Cholesterol; VLFD, Very Low-Fat Diet; TG, Triglycerides; HTN, Hypertension; ASCVD, Atherosclerotic Cardiovascular Disease; FH, Familial Hypercholesterolemia; LFD, Low-fat diet; HFD, High-fat diet; MPV, Mean Platelet Volume; DYS, dyslipidemia; BG, Blood Glucose; IR, Insulin Resistance; LCD, Low Cholesterol Diet, CAIMT, Carotid Arterial Intima-Media Thickness; Outpt, Outpatient; PS, Plant Sterols; WG, Whole Grains; CRP, C-Reactive Protein; CHD Risk, Coronary Heart Disease Risk Percentage; ICAM-1, Intracellular adhesion molecule- type 1; MDA, malondialdehyde; MOD, Minimum Obstruction Diameter; MSD, Mean Segment Diameter; inflam, inflammation.

Note on Dietary Assessment column:

- *Individual:* A dietitian performed a dietary assessment, providing individualized needs for caloric intake and recommendations, for each participant.
- *Group:* The study provided general dietary recommendations for the participants, such as a range of servings of certain food groups, calories based on gender, as opposed to tailoring diets to individual needs based on weight and height.
- *Supervised:* Participants consumed foods in a supervised setting, where the researchers had control over participant food choices and quantity of food served.
- *Unsupervised:* Participants food consumption was unsupervised by researchers, such as eating at home.

Table 3: Mediterranean Diet Publication Bias Results

Outcome	Egger's	Begg's
Triglycerides	p=0.73	p=0.16
Total Cholesterol	p=0.90	p=1.000
LDL	p=0.61	p=0.12
HDL	p=0.45	p=0.44

Table 4: Low Fat Diet Publication Bias Results

Outcome	Egger's	Begg's
Low-Fat Diet without Statins		
Triglycerides	p=0.47	p=0.82
Total Cholesterol	p=0.01	p=0.60
LDL	p=0.01	p=0.44
HDL	p=0.36	p=0.21
Low-Fat Diet with Statins		
Triglycerides	p=0.39	p=0.06
Total Cholesterol	p=0.07	p=0.75
LDL	p=0.23	p=0.12
HDL	p=0.101	p=0.80

Table 5: Mediterranean Diet Summary of Results

Outcome	K	Fixed-Effects	Random-Effects	Q	I^2	P-value
Triglycerides	13	-0.45 (-0.51, -0.40)	-0.45 (-0.79, -0.12)	224.42	96.89%	.0084
Total Cholesterol	10	-0.67 (-0.74, -0.60)	-0.66 (-0.96, -0.35)	73.24	91.84%	<.0001
LDL	12	-0.46 (-0.51, -0.40)	-0.52 (-0.76, -0.27)	147.39	93.25%	<.0001
HDL	13	0.16 (0.11, 0.22)	0.24 (0.01, 0.46)	116.74	93.53%	.04

Table 6: Low-Fat Diet Summary of Results

Low-Fat Diet Without Statins						
Outcome	**K**	**Fixed-Effects**	**Random-Effects**	**Q**	**I^2**	**P-value**
Triglycerides	16	-0.17 (-0.22, -0.12)	-0.12 (-0.25, 0.02)	94.24	79.47%	0.10
Total Cholesterol	17	-0.14 (-0.19, -0.09)	-0.39 (-0.57, -0.20)	183.94	91.12%	<.0001
LDL	17	-0.11 (-0.16, -0.07)	-0.24 (-0.36, -0.11)	70.92	79.50%	0.0002
HDL	19	0.03 (-0.01, 0.08)	-0.06 (-0.27, 0.16)	140.08	95.01%	0.62
Low-Fat Diet With Statins						
Triglycerides	27	-0.50 (-0.54, -0.46)	-0.43 (-0.57, -0.30)	264.50	86.35%	<.0001
Total Cholesterol	37	-1.90 (-1.94, -1.86)	-1.68 (-1.90, -1.46)	600.61	95.59%	<.0001
LDL	36	-1.92 (-1.97, -1.88)	-1.75 (-2.01, -1.49)	723.97	96.75%	<.0001
HDL	35	0.45 (0.42, 0.48)	0.37 (0.29, 0.45)	299.10	84.32%	<.0001

Table 7: Mediterranean Diet Significant Moderator Analysis Results

Variable	Outcome	Category	K	d+(95%CI)	R^2	p-value
Statins	TG	0%	13	-0.39 (-1.00, 0.22)	0.00%	0.80
		7% (min)	13	-0.40 (-0.95, 0.15)	0.00%	0.80
		10%	13	-0.40 (-0.93, 0.12)	0.00%	0.80
		25%	13	-0.43 (-0.84, -0.01)	0.00%	0.80
		50%	13	-0.46 (-0.82, -0.10)	0.00%	0.80
		75%	13	-0.50 (-0.99, -0.01)	0.00%	0.80
		100% (max)	13	-0.53 (-1.24, 0.18)	0.00%	0.80
	Total Cholesterol	0%	10	-0.65 (-1.17, -0.14)	0.00%	0.96
		7% (min)	10	-0.65 (-1.12, -0.19)	0.00%	0.96
		10%	10	-0.66 (-1.10, -0.21)	0.00%	0.96
		25%	10	-0.66 (-1.02, -0.30)	0.00%	0.96
		50%	10	-0.66 (-1.02, -0.32)	0.00%	0.96
		75%	10	-0.67 (-1.16, -0.18)	0.00%	0.96
		100%	10	-0.68 (-1.37, 0.02)	0.00%	0.96
	LDL	0%	12	-0.38 (-0.86, 0.10)	0.00%	0.47
		7% (min)	12	-0.40 (-0.83, 0.02)	0.00%	0.47
		10%	12	-0.41 (-0.82, -0.01)	0.00%	0.47
		25%	12	-0.46 (-0.78, -0.14)	0.00%	0.47
		50%	12	-0.54 (-0.81, -0.27)	0.00%	0.47
		75%	12	-0.62 (-1.00, -0.25)	0.00%	0.47
		100% (max)	12	-0.70 (-1.25, -0.15)	0.00%	0.47
	HDL	0%	13	0.39 (0.01, 0.78)	2.08%	0.32
		7% (min)	13	0.37 (-0.02, 0.72)	2.08%	0.32
		10%	13	0.36 (0.03, 0.69)	2.08%	0.32
		25%	13	0.30 (0.04, 0.57)	2.08%	0.32
		50%	13	0.21 (-0.1, 0.44)	2.08%	0.32
		75%	13	0.12 (-0.19, 0.44)	2.08%	0.32

		100% (max)	13	0.03 (-0.43, 0.49)	2.08%	0.32
Dyslipidemia	TG	15% (min)	10	0.75 (-0.26, 1.75)	14.36%	0.15
		100% (max)	10	-0.75 (-0.51, 0.33)	14.36%	0.15
	Total Cholesterol	15% (min)	8	-0.95 (-1.49, -0.42)	1.40%	0.53
		100% (max)	8	-0.68 (-1.13, -0.22)	1.40%	0.53
	LDL	15% (min)	9	0.45 (-0.71, 1.61)	11.07%	0.06
		100% (max)	9	-1.25 (-1.95, -0.54)	11.07%	0.06
	HDL	15% (min)	10	0.94 (0.61, 1.27)	81.20%	<0.0001
		100% (max)	10	-0.31 (-0.57, -0.05)	81.20%	<0.0001
Subjects Taking Blood Pressure Medication	TG	Yes	13	-0.22 (-1.14, 0.70)	0.00%	0.59
		No	13	-0.49 (-0.87, -0.12)	0.00%	0.59
	Total Cholesterol	Yes	10	-1.15 (-2.01, -0.29)	0.00%	0.23
		No	10	-0.58 (-0.93, -0.23)	0.00%	0.23
	LDL	Yes	12	-1.26 (-1.97, -0.55)	14.03%	0.03
		No	12	-0.43 (-0.67, -0.18)	14.03%	0.03
	HDL	Yes	13	-0.01 (-0.64, 0.61)	0.35%	0.40
		No	13	0.27 (0.03, 0.51)	0.35%	0.40
Subjects Taking Aspirin	TG	Yes	13	-0.57 (-1.54, 0.41)	0.00%	0.87
		No	11	-0.48 (-0.94, -0.02)	0.00%	0.87
	Total Cholesterol	Yes	9	-0.65 (-1.29, -0.01)	0.00%	0.83
		No	9	-0.58 (-0.91, -0.24)	0.00%	0.83
	LDL	Yes	10	0.00 (-0.78, 0.78)	2.19%	0.24
		No	10	-0.47 (-0.71, -0.23)	2.19%	0.24
	HDL	Yes	11	0.78 (0.30, 1.26)	35.78%	0.02
		No	11	0.17 (-0.05, 0.38)	35.78%	0.02
Subjects Using Insulin	TG	Yes	8	-0.99 (-1.23, -0.75)	98.32%	<0.0001
		No	8	-0.19 (-0.27, -0.11)	98.32%	<0.0001

	Total Cholesterol	Yes	6	-1.24 (-1.99, -0.49)	31.11%	0.10
		No	6	-0.54 (-0.89, -0.19)	31.11%	0.10
	LDL	Yes		Insufficient data to analyze		
		No		Insufficient data to analyze		
Length (weeks)	TG	Minimum (8)	13	-0.30 (-0.75, 0.15)	0.00%	0.33
		Maximum (260)	13	-0.76 (-1.48, -0.05)	0.00%	0.33
	Total Cholesterol	Minimum (8)	8	-0.35 (-0.67, -0.04)	54.74%	0.02
		Maximum (260)	8	-1.04 (-1.45, -0.64)	54.74%	0.02
	LDL	Minimum (8)	12	-0.34 (-0.62, -0.07)	32.10%	0.07
		Maximum (26)	12	-0.90 (-1.38, -0.43)	32.10%	0.07
	HDL	Minimum (8)	13	0.54 (0.09, 0.99)	13.30%	0.13
		Maximum (260)	13	0.09 (-0.20, 0.37)	13.30%	0.13
Intervention level	TG	1-on-1	13	-0.26 (-0.58, 0.06)	32.00%	0.02
		Small group	13	-0.97 (-1.51, -0.42)	28.16%	0.03
	Total Cholesterol	1-on-1	10	-0.74 (-1.10, -0.38)	0.00%	0.37
		Small group	10	-0.70 (-1.35, -0.04)	0.00%	0.91
	LDL	1-on-1	12	-0.54 (-0.85, -0.23)	0.00%	0.86
		Small group	12	-0.66 (-1.15, -0.18)	0.00%	0.50
	HDL	1-on-1	13	0.30 (0.04, 0.56)	0.03%	0.31
Number Follow Up	TG	Minimum (1)	13	-0.17 (-0.39, 0.06)	70.30%	<0.0001
		Maximum (8)	13	-1.40 (-1.88, -0.92)	70.30%	<0.0001
	Total Cholesterol	Minimum (1)	10	-0.54 (-0.88, -0.21)	12.75%	0.23
		Maximum (8)	10	-1.02 (-1.67, -0.36)	12.75%	0.23
	LDL	Minimum (1)	12	-0.45 (-0.73, -0.18)	4.17%	0.33
		Maximum (8)	12	-0.82 (-1.47, -0.17)	4.17%	0.33
	HDL	Minimum (1)	13	0.21 (-0.07, 0.48)	0.00%	0.70
		Maximum (8)	13	0.34 (-0.23, 0.91)	0.00%	0.70

Participants Lost F/U	TG	Minimum (0)	13	-0.11 (-0.22, 0.003)	96.47%	<0.0001
		Maximum (14)	13	-1.56 (-1.83, -1.30)	96.47%	<0.0001
	Total Cholesterol	Minimum (0)	10	-0.50 (-0.84, -0.16)	16.14%	0.14
		Maximum (14)	10	-1.28 (-2.15, -0.40)	16.14%	0.14
	LDL	Minimum (0)	12	-0.46 (-0.75, -0.18)	0.00%	0.43
		Maximum (14)	12	-0.78 (-1.49, -0.08)	0.00%	0.43
	HDL	Minimum (0)	13	-0.22 (-0.06, 0.51)	0.00%	0.88
		Maximum (14)	13	0.28 (-0.32, 0.88)	0.00%	0.88
Government Funding	TG		11	-0.50 (-1.29, 0.30)	0.00%	0.89
	Total Cholesterol		8	-1.52 (-2.28, -0.76)	42.96%	0.01
	LDL		10	-0.63 (-1.43, 0.18)	0.00%	0.65
	HDL		11	0.84 (0.49, 1.19)	61.22%	<0.0001
	HDL	Yes	8	1.12 (0.71, 1.52)	78.57%	<0.0001
		No	8	0.19 (0.04, 0.35)	78.57%	<0.0001

Table 8: Low-Fat Diet Significant Moderator Analysis Results

Variable	Outcome	Category	K	d+(95%CI)	R^2	p-value
Age	TG	Minimum (43)	16	-0.45 (-0.74, -0.16)	31.93%	0.02
		Maximum (69.5)	16	0.15 (-0.10, 0.39)	31.93%	0.02
	Total Cholesterol	Minimum (43)	17	-0.53 (-1.03, -0.02)	0.00%	0.57
		Maximum (69.5)	17	-0.27 (-0.71, 0.17)	0.00%	0.57
	LDL	Minimum (43)	17	-0.39 (-0.71, -0.07)	0.00%	0.32
		Maximum (69.5)	17	-0.13 (-0.37, 0.11)	0.00%	0.32
	HDL	Minimum (43)	19	0.02 (-0.54, 0.58)	0.00%	0.77
		Maximum (69.5)	19	-0.12 (-0.57, 0.34)	0.00%	0.77
Female	TG	Minimum (0)	16	-0.44 (-0.71, -0.16)	0.00%	0.93
		Maximum (1.0)	16	-0.17 (-0.61, 0.27)	0.00%	0.93
	Total Cholesterol	Minimum (0)	17	-0.49 (-0.75, -0.22)	18.29%	0.06
		Maximum (1.0)	10	-0.17 (-0.62, 0.29)	18.29%	0.06
	LDL	Minimum (0)	17	-0.30 (-0.48, -0.13)	34.79%	0.04
		Maximum (1.0)	17	-0.10 (-0.36, 0.17)	34.79%	0.04
	HDL	Minimum (0)	19	0.10 (-0.23, 0.43)	0.00%	0.58
		Maximum (1.0)	19	-0.39 (-0.95, 0.18)	0.00%	0.58
Number with CVD	TG	Minimum (0)	6	-0.40 (-0.79, -0.01)	0.00%	0.02
		Maximum (107)	6	0.19 (-0.01, 0.39)	0.00%	0.02
	Total Cholesterol	Minimum (0)	8	-0.99 (-1.75, -0.24)	4.11%	0.15
		Maximum (107)	8	-0.19 (-0.74, 0.36)	4.11%	0.15
	LDL	Minimum (0)	8	-0.50 (-1.02, 0.02)	0.00%	0.36
		Maximum (107)	8	-0.17 (-0.51, 0.17)	0.00%	0.36
	HDL	Minimum (0)	9	0.21 (-0.19, 0.62)	0.00%	0.65
		Maximum (107)	9	0.09 (-0.11, 0.29)	0.00%	0.65
Proportion with Dyslipidemia	TG	Minimum (0)	14	-0.70 (-1.47, 0.07)	0.00%	0.06
		Maximum (1.0)	14	-0.05 (-0.22, 0.12)	0.00%	0.06
	Total	Minimum	16	-0.92	0.00%	0.33

	Cholesterol	(0)		(-2.10, 0.26)		
		Maximum (1.0)	16	-0.35 (-0.56, -0.13)	0.00%	0.33
	LDL	Minimum (0)	16	-0.35 (-1.10, 0.41)	0.00%	0.71
		Maximum (1.0)	16	-0.23 (-0.38, -0.08)	0.00%	0.71
	HDL	Minimum (0)	17	-1.48 (-2.53, -0.44)	21.94%	0.01
		Maximum (1.0)	17	-0.08 (-0.13, 0.30)	21.94%	0.01
Proportion with Hypertension	TG	Minimum (0.35)	7	-0.31 (-0.61, -0.01)	59.12%	0.007
		Maximum (0.946)	7	0.24 (-0.11, 0.60)	59.12%	0.007
	Total Cholesterol	Minimum (0.35)	8	-0.92 (-2.10, 0.26)	0.00%	0.35
		Maximum (0.946)	8	-0.35 (-0.56, -0.13)	0.00%	0.35
	LDL	Minimum (0.35)	9	-0.16 (-0.42, 0.09)	0.00%	0.40
		Maximum (0.946)	9	-0.15 (-0.50, 0.19)	0.00%	0.40
	HDL	Minimum (0.35)	10	-0.02 (-0.78, 0.74)	0.00%	0.35
		Maximum (0.946)	10	-0.23 (-1.21, 0.75)	0.00%	0.35
Number with Hypertension	TG	Minimum (0)	7	-0.14 (-0.53, 0.25)	0.00%	0.81
		Maximum (328)	7	-0.01 (-0.80, 0.79)	0.00%	0.81
	Total Cholesterol	Minimum (0)	7	-0.66 (-1.07, -0.25)	36.21%	0.048
		Maximum (328)	7	0.30 (-0.41, 1.01)	36.21%	0.048
	LDL	Minimum (0)	8	-0.39 (-0.58, -0.20)	78.06%	0.02
		Maximum (328)	8	-0.11 (-0.07, 0.30)	78.06%	0.02
	HDL	Minimum (0)	9	-0.54 (-1.14, 0.07)	1.03%	0.21
		Maximum (328)	9	-0.37 (-0.67, 1.42)	1.03%	0.21
Proportion Taking ACE Inhibitors	TG	Minimum (0%)	10	-0.13 (-0.28, 0.02)	99.99%	0.006
		Maximum (54%)	10	0.19 (0.05, 0.32)	99.99%	0.006
	Total Cholesterol	Minimum (0%)	9	-0.49 (-0.88, -0.11)	0.00%	0.96
		Maximum (54%)	9	-0.45 (-1.70, 0.80)	0.0%	0.96
	LDL	Minimum (0%)	11	-0.32 (-0.59, -0.05)	0.00%	0.61
		Maximum	11	-0.18	0.00%	0.61

		(54%)		(-0.59, 0.23)		
	HDL	Minimum (0%)	11	0.11 (-0.09, 0.30)	0.00%	0.92
		Maximum (54%)	11	0.09 (-0.17, 0.35)	0.00%	0.92
Number Taking ACE Inhibitors	TG	Minimum (0)	10	-0.09 (-0.21, 0.04)	99.99%	0.006
		Maximum (114)	10	0.16 (0.04, 0.28)	99.99%	0.006
	Total Cholesterol	Minimum (0)	9	-0.47 (-0.83, -0.11)	0.00%	0.89
		Maximum (114)	9	-0.97 (-8.09, 6.15)	0.00%	0.89
	LDL	Minimum (0)	11	-0.33 (-0.55, -0.11)	2.26%	0.28
		Maximum (114)	11	-0.04 (-0.49, 0.42)	2.26%	0.28
	HDL	Minimum (0)	11	-0.11 (-0.06, 0.28)	0.00%	0.83
		Maximum (114)	11	-0.07 (-0.24, 0.38)	0.00%	0.83
Length (weeks)	TG	Minimum (4)	16	-0.03 (-0.20, 0.14)	31.86%	0.04
		Maximum (260)	16	-0.33 (-0.63, -0.02)	31.86%	0.04
	Total Cholesterol	Minimum (4)	17	-0.37 (-0.63, -0.12)	0.00%	0.70
		Maximum (260)	17	-0.42 (-0.83, 0.05)	0.00%	0.70
	LDL	Minimum (4)	17	-0.27 (-0.44, -0.11)	0.00%	0.55
		Maximum (260)	17	-0.13 (-0.50, 0.23)	0.00%	0.55
	HDL	Minimum (4)	19	-0.15 (-0.44, 0.14)	0.00%	0.35
		Maximum (260)	19	0.21 (-0.36, 0.77)	0.00%	0.35
Sample Size	TG	Minimum (30)	16	-0.09 (-0.28, 0.10)	0.00%	0.65
		Maximum (5850)	16	-0.75 (-3.50, 2.00)	0.00%	0.65
	Total Cholesterol	Minimum (30)	17	-0.46 (-0.65, -0.27)	21.20%	0.0501
		Maximum (5850)	17	0.64 (-0.39, 1.68)	21.20%	0.0501
	LDL	Minimum (30)	17	-0.29 (-0.42, -0.16)	32.80%	0.04
		Maximum (5850)	17	0.35 (-0.22, 0.93)	32.80%	0.04
	HDL	Minimum (30)	19	-0.09 (-0.34, 0.16)	0.00%	0.55
		Maximum (5850)	19	0.40 (-1.13, 1.93)	0.00%	0.55
Region	TG	United States	16	-0.16 (-0.32, -0.01)	5.54%	0.22

		Europe	16	-0.02 (-0.23, 0.19)	0.00%	0.96
	Total Cholesterol	United States	17	-0.51 (-0.71, -0.32)	22.71%	0.03
		Europe	17	-0.29 (-0.54, -0.04)	0.00%	0.45
	LDL	United States	17	-0.30 (-0.46, -0.14)	0.00%	0.54
		Europe	17	-0.24 (-0.42, -0.07)	0.00%	0.38
	HDL	United States	19	-0.15 (-0.41, 0.11)	1.97%	0.16
		Europe	19	-0.03 (-0.34, 0.27)	0.00%	0.73
Fat Intake	TG	Minimum (24.6%)	11	0.11 (-0.36, 0.58)	0.00%	0.72
		Maximum (38.2%)	11	-0.59 (-1.60, 0.42)	0.00%	0.72
	Total Cholesterol	Minimum (24.6%)	14	-0.62 (-1.03, -0.21)	33.73%	0.008
		Maximum (38.2%)	14	0.43 (-0.50, 1.36)	33.73%	0.008
	LDL	Minimum (24.6%)	12	-0.49 (-0.92, -0.06)	27.57%	0.049
		Maximum (38.2%)	12	-0.26 (-0.63, 1.14)	27.57%	0.049
	HDL	Minimum (24.6%)	14	-0.15 (-0.43, 0.14)	0.00%	0.69
		Maximum (38.2%)	14	0.47 (-0.15, 1.10)	0.00%	0.69
Protein Intake	TG	Minimum (10%)	7	-0.07 (-0.45, 0.31)	0.00%	0.89
		Maximum (22.2%)	7	-0.02 (-0.46, 0.43)	0.00%	0.89
	Total Cholesterol	Minimum (10%)	9	0.16 (-0.45, 0.77)	1.42%	0.19
		Maximum (22.2%)	9	-0.63 (-1.27, 0.01)	1.42%	0.19
	LDL	Minimum (10%)	9	-0.06 (-0.47, 0.35)	0.00%	0.26
		Maximum (22.2%)	9	-0.55 (-1.07, 0.03)	0.00%	0.26
	HDL	Minimum (10%)	9	0.31 (-0.04, 0.66)	13.83%	0.04
		Maximum (22.2%)	9	-0.45 (-0.89, -0.01)	13.83%	0.04
Cholesterol Intake	TG	Minimum (28)	7	0.11 (-0.20, 0.41)	0.00%	0.44
		Maximum (300)	7	-0.05 (-0.21, 0.11)	0.00%	0.44
	Total Cholesterol	Minimum (28)	9	-0.65 (-1.23, -0.08)	13.38%	0.11
		Maximum (300)	9	-0.10 (-0.34, 0.14)	13.38%	0.11
	LDL	Minimum (28)	9	-0.84 (-1.39, -0.29)	35.05%	0.03

		Maximum (300)	9	-0.12 (-0.34, 0.10)	35.05%	0.03
	HDL	Minimum (28)	9	-0.54 (-0.85, -0.23)	100%	<.0001
		Maximum (300)	9	0.19 (0.12, 0.26)	100%	<.0001
Fiber Intake	TG	Minimum (23.6)	6	-0.24 (-0.50, 0.0006)	43.23%	0.09
		Maximum (57)	6	0.40 (-0.21, 1.02)	43.23%	0.09
	Total Cholesterol	Minimum (23.6)	8	-0.05 (-0.37, 0.27)	13.50%	0.13
		Maximum (57)	8	-0.83 (-1.64, -0.03)	13.50%	0.13
	LDL	Minimum (23.6)	8	-0.07 (-0.39, 0.25)	18.26%	0.10
		Maximum (57)	8	-0.94 (-1.76, -0.11)	18.26%	0.10
	HDL	Minimum (23.6)	8	0.20 (-0.10, 0.50)	15.64%	0.04
		Maximum (57)	8	-0.81 (-1.60, -0.02)	15.64%	0.04

Table 9: Low-Fat Diet with Statins Significant Moderator Analysis Results

Variable	Outcome	Category	K	d+(95%CI)	R^2	p-value
Proportion of Females	TG	0% (min)	27	-0.44 (-0.71, -0.16)	0.00%	0.98
		100% (max)	27	-0.43 (-0.97, 0.12)	0.00%	0.98
	Total Cholesterol	0% (min)	37	-1.35 (-1.73, -0.96)	10.43%	0.04
		100% (max)	37	-2.13 (-2.62, -1.65)	10.43%	0.04
	LDL	0% (min)	36	-1.31 (-1.75, -0.18)	14.76%	0.02
		100% (max)	36	-2.37 (-2.93, -1.80)	14.76%	0.02
	HDL	0% (min)	37	0.27 (0.13, 0.41)	16.62%	0.08
		100% (max)	37	0.50 (0.35, 0.66)	16.62%	0.08
Number of Subjects with Cardiovascular Disease	TG	5 (min)	12	-0.34 (-0.80, 0.11)	0.00%	0.60
		113 (max)	12	-0.62 (-1.30, 0.06)	0.00%	0.60
	Total Cholesterol	5 (min)	21	-0.99 (-1.40, -0.59)	49.05%	<.0001
		113 (max)	21	-2.55 (-3.02, -2.08)	49.05%	<.0001
	LDL	5 (min)	21	-0.96 (-1.33, -0.60)	60.15%	<.0001
		113 (max)	21	-2.67 (-3.09, -2.25)	60.15%	<.0001
	HDL	5 (min)	21	0.22 (0.05, 0.38)	25.43%	0.008
		113 (max)	21	0.59 (0.42, 0.76)	25.43%	0.008
Length of Intervention	TG	3 (min)	27	-0.45 (-0.65, -0.26)	0.00%	0.77
		208 (max)	27	-0.31 (-1.14, 0.52)	0.00%	0.77
	Total Cholesterol	3 (min)	37	-1.39 (-1.67, -1.11)	19.22%	0.004
		208 (max)	37	-3.71 (-5.09, -2.33)	19.22%	0.004
	LDL	3 (min)	36	-1.40 (-1.73, -1.08)	23.64%	0.003
		208 (max)	36	-4.10 (-5.67, -2.53)	23.64%	0.003
	HDL	3 (min)	37	0.29 (0.18, 0.41)	8.93%	0.06
		208 (max)	37	0.85 (0.35, 1.35)	8.93%	0.06
Intervention Group Size	TG	19 (min)	27	-0.34 (-0.49, -0.19)	16.73%	0.04
		3390 (max)	27	-0.96 (-1.48, -0.45)	16.73%	0.04

	Total Cholesterol	19 (min)	37	-1.46 (-1.71, -1.22)	22.16%	0.003
		3390 (max)	37	-2.36 (-2.85, -1.88)	22.16%	0.003
	LDL	19 (min)	36	-1.52 (-1.81, -1.23)	19.23%	0.009
		3390 (max)	36	-2.45 (-3.02, -1.87)	19.23%	0.009
	HDL	19 (min)	36	0.30 (0.20, 0.39)	16.58%	0.02
		3390 (max)	36	0.55 (0.39, 0.70)	16.58%	0.02
Number of Intervention Groups	TG	1 (min)	27	-0.46 (-0.74, -0.18)	0.00%	0.81
		5 (max)	27	-0.40 (-0.71, -0.09)	0.00%	0.81
	Total Cholesterol	1 (min)	37	-1.17 (1.62, -0.72)	17.62%	0.01
		5 (max)	37	-2.07 (-2.43, -1.71)	17.62%	0.01
	LDL	1 (min)	36	-1.29 (-1.83, -0.75)	12.26%	0.06
		5 (max)	36	-2.09 (-2.52, -1.66)	12.26%	0.06
	HDL	1 (min)	36	0.12 (-0.03, 0.27)	35.03%	<.0001
		5 (max)	36	0.57 (0.45, 0.68)	35.03%	<.0001
Funding Source	TG	Government	17	-0.58 (-0.83, -0.32)	5.64%	0.13
		Private	17	-0.26 (-0.59, 0.08)	5.64%	0.13
	Total Cholesterol	Government	27	-1.76 (-2.08, -1.43)	3.94%	0.23
		Private	27	-1.36 (-1.92, -0.80)	3.94%	0.23
	LDL	Government	26	-1.72 (-2.09, -1.36)	0.00%	0.48
		Private	26	-1.46 (-2.09, -0.83)	0.00%	0.48
	HDL	Government	26	0.48 (0.38, 0.58)	16.44%	0.003
		Private	26	0.15 (-0.05, 0.34)	16.44%	0.003
Proportion of Recommended Fat Intake	TG	17% (min)	27	-0.36 (-0.64, -0.09)	0.00%	0.56
		30% (max)	27	-0.49 (-0.55, -0.31)	0.00%	0.56
	Total Cholesterol	17% (min)	37	-1.43 (-1.94, -0.93)	9.66%	0.048
		30% (max)	37	-1.72 (-1.96, -1.49)	9.66%	0.048
	LDL	17% (min)	36	-2.13 (-2.82, -1.44)	0.00%	0.25

		30% (max)	36	-1.70 (-1.97, -1.42)	0.00%	0.25
	HDL	17% (min)	37	0.27 (0.07, 0.47)	2.47%	0.26
		30% (max)	37	0.39 (0.31, 0.47)	2.47%	0.26
Proportion of Recommended Carbohydrate Intake	TG	42.1% (min)	18	-0.67 (-1.24, -0.10)	0.00%	0.50
		67% (max)	18	-0.31 (-0.85, 0.23)	0.00%	0.50
	Total Cholesterol	42.1% (min)	28	-2.88 (-3.67, -2.09)	26.85%	0.003
		67% (max)	28	-0.64 (-1.37, 0.10)	26.85%	0.003
	LDL	42.1% (min)	27	-2.64 (-3.59, -1.68)	11.90%	0.046
		67% (max)	27	-0.83 (-1.72, 0.06)	11.90%	0.046
	HDL	42.1% (min)	27	0.36 (-0.01, 0.73)	0.00%	0.84
		67% (max)	27	0.43 (0.08, 0.79)	0.00%	0.84
Proportion of Recommended Protein Intake	TG	15% (min)	18	-0.53 (-0.73, -0.32)	0.00%	0.35
		21% (max)	18	-0.13 (-0.90, 0.65)	0.00%	0.35
	Total Cholesterol	15% (min)	28	-1.76 (-2.01, -1.51)	1.84%	0.30
		21% (max)	28	-1.23 (-2.16, -0.30)	1.84%	0.30
	LDL	15% (min)	27	-1.74 (-2.02, -1.45)	0.60%	0.42
		21% (max)	27	-1.13 (-2.55, 0.29)	0.60%	0.42
	HDL	15% (min)	27	0.43 (0.33, 0.52)	12.52%	0.04
		21% (max)	27	-0.21 (-0.80, 0.38)	12.52%	0.04
Recommended Cholesterol Intake	TG	31 (min)	20	-0.13 (-0.58, 0.33)	7.30%	0.10
		300(max)	20	-0.59 (-0.79, -0.38)	7.30%	0.10
	Total Cholesterol	31 (min)	30	-1.17 (-1.90, -0.45)	6.94%	0.11
		300(max)	30	-1.85 (-2.12, -1.58)	6.94%	0.11
	LDL	31 (min)	29	-1.16 (-2.03, -0.29)	4.62%	0.19
		300(max)	29	-1.82 (-2.12, -1.52)	4.62%	0.19
	HDL	31 (min)	29	-0.0062 (-0.34, 0.33)	18.05%	0.02

		300(max)	29	0.44 (0.35, 0.53)	18.05%	0.02
Reported Macronutrient Distribution	TG	Yes	27	-0.36 (-0.66, -0.07)	0.00%	0.60
		No	27	-0.45 (-0.60, -0.30)	0.00%	0.60
	Total Cholesterol	Yes	37	-1.82 (-2.42, -1.22)	0.00%	0.62
		No	37	-0.16 (-0.81, -1.42)	0.00%	0.62
	LDL	Yes	36	-2.39 (-3.08, -1.70)	5.39%	0.049
		No	36	-1.65 (-1.92, -1.34)	5.39%	0.049
	HDL	Yes	36	0.34 (0.13, 0.55)	0.00%	0.76
		No	36	0.34 (0.29, 0.46)	0.00%	0.76
Provision of Food	TG	Yes	27	-0.46 (-0.60, -0.32)	2.93%	0.19
		No	27	-0.16 (-0.59, 0.27)	2.93%	0.19
	Total Cholesterol	Yes	37	-1.75 (-1.96, -1.54)	14.38%	0.02
		No	37	-0.81 (-1.57, -0.05)	14.38%	0.02
	LDL	Yes	36	-1.82 (-2.07, -1.56)	9.88%	0.06
		No	36	-0.92 (-1.81, -0.03)	9.88%	0.06
	HDL	Yes	36	0.39 (-0.65, 0.07)	5.12%	0.12

Table 10: Non-Significant Moderators

Mediterranean Diet	Low-Fat Diet	Low-Fat Diet with Statins
Journal impact factor	Impact Per Publication	Journal impact factor
Intervention setting	Score	Intervention setting
Publication year	Methodological Quality	Publication year
Methodological quality	Score	Methodological quality
coding score	Government Funding	coding score
Subjects recruited by a	Private Party Funding	Subjects recruited by a
hospital	Intervention Group Size	hospital
Subject ethnicity	Current Smokers	Subject ethnicity
Mean subject age	Proportion of Subjects	Proportion with
Proportion with	with Cardiovascular	hypertension
hypertension	Disease	Proportion with
Proportion with Diabetes	Proportion of Subjects	cardiovascular disease
Mellitus	with Type II Diabetes	Proportion of current
Proportion taking ACE	Mellitus	smokers
inhibitors	Number of Subjects with	Statin dose (mg)
Number taking ACE	Type II Diabetes Mellitus	Recommended sodium
inhibitors	Number of Subjects with	intake
Proportion taking statins	Dyslipidemia	Length of weeks between
Proportion of females	Proportion of Subjects	follow-up
Proportion of current	Using Diuretics	Number of follow-up
smokers	Number of Subjects	sessions
Provision of food	Using Diuretics	Number of subjects lost
Reported macronutrient	Subjects Taking Aspirin	to follow-up
distribution	Supervision Level – One-	
Dietary fat intake	on-One	
Monitoring dietary	Supervision Level –	
adherence	Small Group	
Weight loss	Weight Loss	
Number of intervention	Number of Follow-Ups	
groups	Length (in Weeks)	
Type of control group	Between Follow-Ups	
Length of weeks between	Monitoring Diet During	
follow-ups	Intervention	
	Assessment of	
	Compliance	
	Number of Subjects Lost	
	to Follow-Up	
	Recommended	
	Saturated Fat Intake	

Table 11: Moderators Unable to Analyze Due to Lack of Reported Information

Mediterranean Diet	Low-Fat Diet	Low-Fat Diet with Statins
Proportion with Cardiovascular Disease	Subject Ethnicity	Proportion with Diabetes Mellitus
Proportion with Metabolic Syndrome	Method of Recruiting Subjects	Proportion with Metabolic Syndrome
Use of beta-blockers	Proportion with Overweight/Obesity	Use of ACE inhibitors
Use of nitrates	Number with Overweight/Obesity	Use of beta-blockers
Use of diuretics	Proportion with Metabolic Syndrome	Use of nitrates
Use of NSAIDs	Number with Metabolic Syndrome	Use of diuretics
Use of fibrates	Proportion Using Beta-Blockers	Use of fibrates
Recommended protein intake	Number Using Beta-Blockers	Use of calcium channel blockers
Recommended dietary sodium intake	Proportion Using Nitrates	Adherence to dietary intervention
Recommended dietary cholesterol intake	Number Using Nitrates	Weight loss
Recommended dietary saturated fat intake	Proportion Using Calcium Channel Blockers	Provision of food
Recommended dietary fiber intake	Number Using Calcium Channel Blockers	Recommended dietary unsaturated fat intake
Recommended vegetable servings	Oral Contraceptive or Hormone Replacement Therapy	Recommended vegetable servings
Recommended dairy servings	Alcohol Consumption	Recommended dairy servings
Recommended meat servings	Weight gain	Recommended meat servings
Recommended poultry servings	Weight maintenance	Recommended poultry servings
Recommended fish servings	Caloric Intake	Recommended fish servings
Academic/University funding source	Unsaturated Fat Intake	Alcohol use
Private funding source	Recommended Sodium Intake	
	Servings of Vegetables	
	Servings of Dairy	
	Servings of Wine	
	Servings of Grains	
	Servings of Fish	
	Servings of Oil	
	Servings of Nuts	
	Servings of Legumes	
	Servings of Meat	
	Servings of Poultry	
	Quality of Life	

Appendix

Appendix 1: Comprehensive Literature Search: Mediterranean Diet

PubMed (1940s to present)
Terms were searched in all fields; however, field labels were used to restrict specific terms/phrases to the Medical Subject Headings [Mesh], publication type [pt] and journal name [ta] fields.
("Mediterranean diet" OR "Mediterranean diets" OR "Mediterranean dietary" OR "Mediterranean style diet" OR "Mediterranean style diets" OR "Diet, Mediterranean"[Mesh]) AND (“Antihyperlipidemic medication” OR “Antihyperlipidemic medications” OR statin OR statins OR “HMG-CoA Reductase” OR “cholesterol lowering agents” OR “lipid lowering agents” OR “HMG-CoA” OR “bile acid sequestrants” OR “resins” OR “nicotinic acid” OR niacin OR “fibric acid derivatives” OR “fibrates” OR “cholesterol absorption inhibitors” OR “hydroxymethylglutaryl-CoA” OR "hydroxymethylglutaryl-coa reductase inhibitors"[Pharmacological Action] OR "hydroxymethylglutaryl-coa reductase inhibitors"[MeSH Terms] OR ("hydroxymethylglutaryl-coa"[All Fields] AND "reductase"[All Fields] AND "inhibitors"[All Fields]) OR statin* OR "HMG-CoA Reductase"[All Fields] OR "HMG-CoA"[All Fields] OR "hydroxymethylglutaryl-CoA"[All Fields] OR "atorvastatin" OR "simvastatin"[MeSH Terms] OR "simvastatin" OR "rosuvastatin" OR "pravastatin"[MeSH Terms] OR "pravastatin" OR "lovastatin"[MeSH Terms] OR "lovastatin" OR "pitavastatin"[Supplementary Concept] OR "pitavastatin" OR "fluvastatin"[Supplementary Concept] OR "fluvastatin" OR "cerivastatin"[Supplementary Concept] OR "cerivastatin" OR "mevastatin"[Supplementary Concept] OR "mevastatin" OR "cardiovascular disease" OR "Cardiovascular Diseases"[Mesh] OR "cardiovascular diseases" OR "heart disease" OR "heart diseases" OR CVD OR CVDs OR "Hypertension"[Mesh] OR hypertension OR hypertensive* OR "high blood pressure" OR "Myocardial Infarction"[Mesh] OR "myocardial infarction" OR "myocardial infarct" OR "MI" OR "heart attack" OR "Stroke"[Mesh] OR stroke OR "Coronary Artery Disease"[Mesh] OR "coronary artery disease" OR "coronary arterial disease" OR "coronary heart disease" OR "Cerebrovascular Disorders"[Mesh] OR "Cerebrovascular Disorders" OR "cerebrovascular disease" OR "cerebrovascular diseases" OR "Atherosclerosis"[Mesh] OR atherosclerosis OR "Arteriosclerosis"[Mesh] OR arteriosclerosis OR "Peripheral Vascular Diseases"[Mesh] OR "peripheral vascular diseases" OR "peripheral vascular disease" OR "peripheral angiopathy" OR "peripheral angiopathies" OR "Peripheral Arterial Disease"[Mesh] OR "peripheral arterial disease" OR "peripheral arterial diseases" OR "peripheral artery disease" OR "peripheral artery diseases" OR "Venous Thrombosis"[Mesh] OR "venous thrombosis" OR "venous thromboses" OR "deep vein thrombosis" OR "deep vein thromboses" OR "Pulmonary Embolism"[Mesh] OR "pulmonary embolism" OR "pulmonary embolisms" OR "Dyslipidemias"[Mesh] OR dyslipidemia OR dyslipidemias OR "Hypercholesterolemia"[Mesh] OR hypercholesterolemia OR hypercholesterolemias OR "Aortic Valve Stenosis"[Mesh] OR "Aortic Valve Stenosis" OR "aortic stenosis" OR "aortic stenoses" OR "Aneurysm"[Mesh] OR Aneurysm OR aneurysms OR Aneurism OR regurgitation OR prolapse) AND (("clinical"[tiab] AND "trial"[tiab]) OR "clinical trials as topic"[mesh] OR "clinical trial"[pt] OR random*[tiab] OR "random allocation"[mesh] OR "therapeutic

use"[sh]) NOT ("Case Reports"[pt] OR Comment[pt] OR Editorial[pt] OR Letter[pt] OR "case control"[ti] OR "case report"[ti] OR "case study"[ti] OR "case series"[ti] OR "Case-Control Studies"[Mesh] OR "Follow-Up Studies"[Mesh] OR "observational study"[ti] OR "prospective cohort"[ti] OR "cohort studies" [Mesh:NoExp] OR "cohort study"[ti] OR "Follow-Up Studies"[mesh] OR "Retrospective Studies"[mesh] OR "non-randomized"[ti] OR "follow up study"[ti] OR rat[ti] OR rats[ti] OR mice[ti] OR mouse[ti] OR dog[ti] OR dogs[ti] OR cats[ti] OR (animals[MH] NOT humans[MH]))
Results: 607

EMBASE (via Scopus) (1823 to present)
Limits: Article, review, conference papers, journals
All terms (unless otherwise noted) were searched in "Article Title, Abstract, Keywords". Because of character restrictions in Scopus, this search was run in parts and assembled using the "Search history".
"Mediterranean diet" OR "Mediterranean diets" OR "Mediterranean dietary" OR "Mediterranean style diet" OR "Mediterranean style diets"
AND
"cardiovascular disease" OR "cardiovascular diseases" OR "heart disease" OR "heart diseases" OR "CVD" OR "CVDs" OR "hypertension" OR "high blood pressure" OR "myocardial infarction" OR "MI" OR "heart attack" OR "stroke" OR "coronary artery disease" OR "coronary heart disease" OR "cerebrovascular disease" OR "atherosclerosis" OR "arteriosclerosis" OR "peripheral vascular disease" OR "peripheral artery disease" OR "deep vein thrombosis" OR "pulmonary embolism" OR "dyslipidemia" OR "hypercholesterolemia" OR "aortic stenosis" OR "Aneurism" OR "regurgitation" OR "prolapse"
AND
Option 1: (clinical AND trial)
OR
Option 2: "Clinical Trials" OR "clinical trial" OR random* OR "therapeutic use"
AND NOT
(in title) rat OR rats OR mice OR mouse OR dog OR dogs OR cats OR "case report" OR comment OR editorial OR letter OR "case control" OR "case study" OR "case series" OR "follow-up study" OR "observational study" OR "prospective cohort" OR "cohort study" OR "retrospective study" OR "non-randomized"
Results: 343

CINAHL (1981-present)
All terms were searched in all fields (unless otherwise noted)
Excluded: MEDLINE Records
Limited: Research Article
Due to database limitations, search was run in parts and assembled using the search history.
"Mediterranean diet" OR "Mediterranean diets" OR "Mediterranean dietary" OR "Mediterranean style diet" OR "Mediterranean style diets"
AND
(“Antihyperlipidemic medication” OR “Antihyperlipidemic medications” OR statin OR statins OR “HMG-CoA Reductase” OR “cholesterol lowering agents”

OR “lipid lowering agents” OR “HMG-CoA” OR “bile acid sequestrants” OR “resins” OR “nicotinic acid” OR niacin OR “fibric acid derivatives” OR “fibrates” OR “cholesterol absorption inhibitors” OR “hydroxymethylglutaryl-CoA” OR statin* OR "atorvastatin" OR "simvastatin" OR "simvastatin" OR "rosuvastatin" OR "pravastatin” OR "lovastatin" OR "pitavastatin" OR "fluvastatin" OR "cerivastatin" OR "mevastatin" OR "cardiovascular disease" OR "cardiovascular diseases" OR "heart disease" OR "heart diseases" OR CVD OR CVDs OR hypertension OR hypertensive* OR "high blood pressure" OR "myocardial infarction" OR "myocardial infarct" OR "MI" OR "heart attack" OR stroke OR "coronary artery disease" OR "coronary arterial disease" OR "coronary heart disease" OR "Cerebrovascular Disorders" OR "cerebrovascular disease" OR "cerebrovascular diseases" OR atherosclerosis OR arteriosclerosis OR "peripheral vascular diseases" OR "peripheral vascular disease" OR "peripheral angiopathy" OR "peripheral angiopathies" OR "peripheral arterial disease" OR "peripheral arterial diseases" OR "peripheral artery disease" OR "peripheral artery diseases" OR "venous thrombosis" OR "venous thromboses" OR "deep vein thrombosis" OR "deep vein thromboses" OR "Pulmonary Embolism" OR "pulmonary embolisms" OR dyslipidemia OR dyslipidemias OR hypercholesterolemia OR hypercholesterolemias OR "Aortic Valve Stenosis" OR "aortic stenosis" OR "aortic stenoses" OR Aneurysm OR aneurysms OR Aneurism OR regurgitation OR prolapse)

AND
Option 1: (clinical AND trial)
OR
Option 2: (MH "Clinical Trials+") OR "clinical trial" OR random* OR (MH "Random Assignment") OR "therapeutic use"
NOT
(in title) rat OR rats OR mice OR mouse OR dog OR dogs OR cats OR "case report" OR comment OR editorial OR letter OR "case control" OR "case study" OR "case series" OR "follow-up study" OR "observational study" OR "prospective cohort" OR "cohort study" OR "retrospective study" OR "non-randomized"
Results : 9

PsycINFO (1872 to present)
Limits: academic journals
Due to database limitations, search was run in parts and assembled using the search history.
"Mediterranean diet" OR "Mediterranean diets" OR "Mediterranean dietary" OR "Mediterranean style diet" OR "Mediterranean style diets"
AND
"cardiovascular disease" OR "cardiovascular diseases" OR "heart disease" OR "heart diseases" OR "CVD" OR "CVDs" OR "hypertension" OR "high blood pressure" OR "myocardial infarction" OR "MI" OR "heart attack" OR "stroke" OR "coronary artery disease" OR "coronary heart disease" OR "cerebrovascular disease" OR "atherosclerosis" OR "arteriosclerosis" OR "peripheral vascular disease" OR "peripheral artery disease" OR "deep vein

thrombosis" OR "pulmonary
embolism" OR "dyslipidemia" OR "hypercholesterolemia" OR "aortic
stenosis" OR "Aneurism" OR "regurgitation" OR "prolapse"
AND
Option 1: (clinical AND trial)
OR
Option 2: (DE "Clinical Trials") OR "clinical trial" OR random* OR (DE "Random Sampling") OR "therapeutic use"
NOT
(in title) rat OR rats OR mice OR mouse OR dog OR dogs OR cats OR "case report" OR comment OR editorial OR letter OR "case control" OR "case study" OR "case series" OR "follow-up study" OR "observational study" OR "prospective cohort" OR "cohort study" OR "retrospective study" OR "non-randomized"
Results: 14

Academic Search Premier (1980s to present)
Limit: Scholarly (Peer Reviewed) Journals
"Mediterranean diet" OR "Mediterranean diets" OR "Mediterranean dietary" OR "Mediterranean style diet" OR "Mediterranean style diets"
AND
"cardiovascular disease" OR "cardiovascular diseases" OR "heart disease" OR "heart
diseases" OR "CVD" OR "CVDs" OR "hypertension" OR "high blood pressure" OR "myocardial infarction" OR "MI" OR "heart
attack" OR "stroke" OR "coronary artery disease" OR "coronary heart disease" OR "cerebrovascular
disease" OR "atherosclerosis" OR "arteriosclerosis" OR "peripheral vascular disease" OR "peripheral artery disease" OR "deep vein
thrombosis" OR "pulmonary
embolism" OR "dyslipidemia" OR "hypercholesterolemia" OR "aortic
stenosis" OR "Aneurism" OR "regurgitation" OR "prolapse"
AND
Option 1: (clinical AND trial)
OR
Option 2: (random* OR "therapeutic use")
NOT
(in title) rat OR rats OR mice OR mouse OR dog OR dogs OR cats OR "case report" OR comment OR editorial OR letter OR "case control" OR "case study" OR "case series" OR "follow-up study" OR "observational study" OR "prospective cohort" OR "cohort study" OR "retrospective study" OR "non-randomized"
Results: 208

Agricola (1970-present)
Searched in "All Fields"
Limits: academic journals
"Mediterranean diet" OR "Mediterranean diets" OR "Mediterranean dietary" OR "Mediterranean style diet" OR "Mediterranean style diets"
AND
"cardiovascular disease" OR "cardiovascular diseases" OR "heart disease" OR "heart
diseases" OR "CVD" OR "CVDs" OR "hypertension" OR "high blood

pressure" OR "myocardial infarction" OR "MI" OR "heart
attack" OR "stroke" OR "coronary artery disease" OR "coronary heart
disease" OR "cerebrovascular
disease" OR "atherosclerosis" OR "arteriosclerosis" OR "peripheral vascular
disease" OR "peripheral artery disease" OR "deep vein
thrombosis" OR "pulmonary
embolism" OR "dyslipidemia" OR "hypercholesterolemia" OR "aortic
stenosis" OR "Aneurism" OR "regurgitation" OR "prolapse"
AND
Option 1: (clinical AND trial)
OR
Option 2: (random* OR "therapeutic use")
NOT
(in title) rat OR rats OR mice OR mouse OR dog OR dogs OR cats OR "case report" OR comment OR editorial OR letter OR "case control" OR "case study" OR "case series" OR "follow-up study" OR "observational study" OR "prospective cohort" OR "cohort study" OR "retrospective study" OR "non-randomized"
Results: 40

CAB Direct (1973-present)
Limit to Document Type: Journal article and Evidence based research articles only
"Mediterranean diet" OR "Mediterranean diets" OR "Mediterranean
dietary" OR "Mediterranean style diet" OR "Mediterranean style diets"
AND
"cardiovascular disease" OR "cardiovascular diseases" OR "heart
disease" OR "heart
diseases" OR "CVD" OR "CVDs" OR "hypertension" OR "high blood
pressure" OR "myocardial infarction" OR "MI" OR "heart
attack" OR "stroke" OR "coronary artery disease" OR "coronary heart
disease" OR "cerebrovascular
disease" OR "atherosclerosis" OR "arteriosclerosis" OR "peripheral vascular
disease" OR "peripheral artery disease" OR "deep vein
thrombosis" OR "pulmonary
embolism" OR "dyslipidemia" OR "hypercholesterolemia" OR "aortic
stenosis" OR "Aneurism" OR "regurgitation" OR "prolapse"
AND
Option 1: (clinical AND trial)
OR
Option 2: (random* OR "therapeutic use")
NOT
(in title) rat OR rats OR mice OR mouse OR dog OR dogs OR cats OR "case report" OR comment OR editorial OR letter OR "case control" OR "case study" OR "case series" OR "follow-up study" OR "observational study" OR "prospective cohort" OR "cohort study" OR "retrospective study" OR "non-randomized"

Results: 0 results

Grand Total 1221

Appendix 2: Comprehensive Literature Search: Low-Fat Diet

PubMed (1940s to present)
Terms were searched in all fields; however, field labels were used to restrict specific terms/phrases to the Medical Subject Headings [Mesh], publication type [pt] and journal name [ta] fields.

(diet[majr] OR diet[ti] OR diets[ti] OR dietary[ti] OR "Dietary Fats" [majr] OR "low fat"[ti] OR "reduced fat"[ti] OR ("American Heart Association"[tiab] AND diet) OR ("Therapeutic lifestyle change" AND diet) OR ("therapeutic lifestyle changes" AND diet) OR "DASH" OR "Dietary Approaches to Stop Hypertension" OR ("National Cholesterol Education Program" AND diet) OR "fat restricted"[ti] OR "lower fat"[ti] OR "hypolipidemic"[ti])
AND ("Antihyperlipidemic medication" OR "Antihyperlipidemic medications" OR statin OR statins OR "HMG-CoA Reductase" OR "cholesterol lowering agents" OR "lipid lowering agents" OR "HMG-CoA" OR "bile acid sequestrants" OR "resins" OR "fibric acid derivatives" OR "fibrates" OR "cholesterol absorption inhibitors" OR "hydroxymethylglutaryl-CoA" OR "hydroxymethylglutaryl-coa reductase inhibitors"[Pharmacological Action] OR "hydroxymethylglutaryl-coa reductase inhibitors"[MeSH Terms] OR ("hydroxymethylglutaryl-coa"[All Fields] AND "reductase"[All Fields] AND "inhibitors"[All Fields]) OR statin* OR "HMG-CoA Reductase"[All Fields] OR "HMG-CoA"[All Fields] OR "hydroxymethylglutaryl-CoA"[All Fields] OR "atorvastatin" OR "simvastatin"[MeSH Terms] OR "simvastatin" OR "rosuvastatin" OR "pravastatin"[MeSH Terms] OR "pravastatin" OR "lovastatin"[MeSH Terms] OR "lovastatin" OR "pitavastatin"[Supplementary Concept] OR "pitavastatin" OR "fluvastatin"[Supplementary Concept] OR "fluvastatin" OR "cerivastatin"[Supplementary Concept] OR "cerivastatin" OR "mevastatin"[Supplementary Concept] OR "mevastatin" OR pravachol OR Zocor OR Lipitor) AND ("cardiovascular disease" OR "Cardiovascular Diseases"[Mesh] OR "cardiovascular diseases" OR "heart disease" OR "heart diseases" OR CVD OR CVDs OR "Hypertension"[Mesh] OR hypertension OR hypertensive* OR "high blood pressure" OR "Myocardial Infarction"[Mesh] OR "myocardial infarction" OR "myocardial infarct" OR "MI" OR "heart attack" OR "Stroke"[Mesh] OR stroke OR "Coronary Artery Disease"[Mesh] OR "coronary artery disease" OR "coronary arterial disease" OR "coronary heart disease" OR "Cerebrovascular Disorders"[Mesh] OR "Cerebrovascular Disorders" OR "cerebrovascular disease" OR "cerebrovascular diseases" OR "Atherosclerosis"[Mesh] OR atherosclerosis OR "Arteriosclerosis"[Mesh] OR arteriosclerosis OR "Peripheral Vascular Diseases"[Mesh] OR "peripheral vascular diseases" OR "peripheral vascular disease" OR "peripheral angiopathy" OR "peripheral angiopathies" OR "Peripheral Arterial Disease"[Mesh] OR "peripheral arterial disease" OR "peripheral arterial diseases" OR "peripheral artery disease" OR "peripheral artery diseases" OR "Venous Thrombosis"[Mesh] OR "venous thrombosis" OR "venous thromboses" OR "deep vein thrombosis" OR "deep vein thromboses" OR "Pulmonary Embolism"[Mesh] OR "pulmonary embolism" OR "pulmonary embolisms" OR "Dyslipidemias"[Mesh] OR dyslipidemia OR dyslipidemias OR "Hypercholesterolemia"[Mesh] OR hypercholesterolemia OR hypercholesterolemias OR "Aortic Valve Stenosis"[Mesh] OR "Aortic Valve Stenosis" OR "aortic stenosis" OR "aortic stenoses" OR "Aneurysm"[Mesh] OR Aneurysm OR aneurysms OR Aneurism OR regurgitation OR prolapse) AND (("clinical"[tiab] AND "trial"[tiab])

OR "clinical trials as topic"[mesh] OR "clinical trial"[pt] OR random*[tiab] OR "random allocation"[mesh] OR "therapeutic use"[sh]) NOT (review[pt] OR "Case Reports"[pt] OR Comment[pt] OR Editorial[pt] OR Letter[pt] OR "case control"[ti] OR polymorphism*[ti] OR allele*[ti] OR "case report"[ti] OR "case study"[ti] OR "case series"[ti] OR "Case-Control Studies"[Mesh] OR "Follow-Up Studies"[Mesh] OR "observational study"[ti] OR "prospective cohort"[ti] OR "cohort studies" [Mesh:NoExp] OR "cohort study"[ti] OR "Follow-Up Studies"[mesh] OR "Retrospective Studies"[mesh] OR "non-randomized"[ti] OR "follow up study"[ti] OR rat[ti] OR rats[ti] OR rabbit*[ti] OR mice[ti] OR mouse[ti] OR dog[ti] OR dogs[ti] OR cats[ti] OR animal*[ti] OR (animals[MH] NOT humans[MH]) OR "Renal Insufficiency, Chronic"[MeSH] OR renal[ti] OR renoprotection[ti] OR (("infant"[MeSH Terms] OR "child"[MeSH Terms] OR "adolescent"[MeSH Terms]) NOT "adult"[MeSH Terms]))
Results: 409

EMBASE (via Scopus) (1823 to present)
Limits: Article, review, conference papers, journals
All terms (unless otherwise noted) were searched in "Article Title, Abstract, Keywords". Because of character restrictions in Scopus, this search was run in parts and assembled using the "Search history".
(in title) diet OR diets OR dietary OR “low fat” OR “reduced fat” OR “therapeutic lifestyle changes” OR “DASH” OR “National Cholesterol Education Program” OR “fat restricted” OR “lower fat” OR “hypolipidemic”

AND

"cardiovascular disease" OR "cardiovascular diseases" OR "heart disease" OR "heart diseases" OR "CVD" OR "CVDs" OR "hypertension" OR "high blood pressure" OR "myocardial infarction" OR "MI" OR "heart attack" OR "stroke" OR "coronary artery disease" OR "coronary heart disease" OR "cerebrovascular disease" OR "atherosclerosis" OR "arteriosclerosis" OR "peripheral vascular disease" OR "peripheral artery disease" OR "deep vein thrombosis" OR "pulmonary embolism" OR "dyslipidemia" OR "hypercholesterolemia" OR "aortic stenosis" OR "Aneurism" OR "regurgitation" OR "prolapse"

AND

“Antihyperlipidemic medication” OR “Antihyperlipidemic medications” OR statin OR statins OR “HMG-CoA Reductase” OR “cholesterol lowering agents” OR Lipitor OR pravachol OR Zocor OR “lipid lowering agents” OR “HMG-CoA” OR “bile acid sequestrants” OR “resins” OR “fibric acid derivatives” OR “fibrates” OR “cholesterol absorption inhibitors” OR “hydroxymethylglutaryl-CoA” OR statin* OR "atorvastatin" OR "simvastatin" OR "simvastatin" OR "rosuvastatin" OR "pravastatin” OR "lovastatin" OR "pitavastatin" OR "fluvastatin" OR "cerivastatin" OR "mevastatin"

Option 1: (clinical AND trial)
OR
Option 2: "Clinical Trials" OR "clinical trial" OR random* OR "therapeutic use"

AND NOT

(in title) rat OR rats OR mice OR mouse OR dog OR dogs OR cats OR "case report" OR comment OR editorial OR letter OR "case control" OR "case study" OR "case series" OR "follow-up study" OR "observational study" OR "prospective cohort" OR "cohort study" OR "retrospective study" OR "non-randomized" OR allele* OR polymorphism* OR animal* OR review OR renal OR renoprotect*
Results 165

CINAHL (1981-present)
All terms were searched in all fields (unless otherwise noted)
Excluded: MEDLINE Records
Limited: Research Article
(in title) diet OR diets OR dietary OR “low fat” OR “reduced fat” OR “therapeutic lifestyle changes” OR “DASH” OR “National Cholesterol Education Program” OR “fat restricted” OR “lower fat” OR “hypolipidemic”

AND

"cardiovascular disease" OR "cardiovascular diseases" OR "heart disease" OR "heart diseases" OR "CVD" OR "CVDs" OR "hypertension" OR "high blood pressure" OR "myocardial infarction" OR "MI" OR "heart attack" OR "stroke" OR "coronary artery disease" OR "coronary heart disease" OR "cerebrovascular disease" OR "atherosclerosis" OR "arteriosclerosis" OR "peripheral vascular disease" OR "peripheral artery disease" OR "deep vein thrombosis" OR "pulmonary embolism" OR "dyslipidemia" OR "hypercholesterolemia" OR "aortic stenosis" OR "Aneurism" OR "regurgitation" OR "prolapse"

AND

“Antihyperlipidemic medication” OR “Antihyperlipidemic medications” OR statin OR statins OR “HMG-CoA Reductase” OR “cholesterol lowering agents” OR Lipitor OR pravachol OR Zocor OR “lipid lowering agents” OR “HMG-CoA” OR “bile acid sequestrants” OR “resins” OR “fibric acid derivatives” OR “fibrates” OR “cholesterol absorption inhibitors” OR “hydroxymethylglutaryl-CoA” OR statin* OR "atorvastatin" OR "simvastatin" OR "simvastatin" OR "rosuvastatin" OR "pravastatin” OR "lovastatin" OR "pitavastatin" OR "fluvastatin" OR "cerivastatin" OR "mevastatin"

NOT
(in title) rat OR rats OR mice OR mouse OR dog OR dogs OR cats OR "case report" OR comment OR editorial OR letter OR "case control" OR "case study" OR "case series" OR "follow-up study" OR "observational study" OR "prospective cohort" OR "cohort study" OR "retrospective study" OR "non-randomized" OR allele* OR polymorphism* OR animal* OR review OR renal OR renoprotect*
Results: 6

PsycINFO (1872 to present)
Limits: peer reviewed journals

(in title) diet OR diets OR dietary OR “low fat” OR “reduced fat” OR “therapeutic lifestyle changes” OR “DASH” OR “National Cholesterol Education Program” OR “fat restricted” OR “lower fat” OR “hypolipidemic”

AND

"cardiovascular disease" OR "cardiovascular diseases" OR "heart disease" OR "heart diseases" OR "CVD" OR "CVDs" OR "hypertension" OR "high blood pressure" OR "myocardial infarction" OR "MI" OR "heart attack" OR "stroke" OR "coronary artery disease" OR "coronary heart disease" OR "cerebrovascular disease" OR "atherosclerosis" OR "arteriosclerosis" OR "peripheral vascular disease" OR "peripheral artery disease" OR "deep vein thrombosis" OR "pulmonary embolism" OR "dyslipidemia" OR "hypercholesterolemia" OR "aortic stenosis" OR "Aneurism" OR "regurgitation" OR "prolapse"

AND

“Antihyperlipidemic medication” OR “Antihyperlipidemic medications” OR statin OR statins OR “HMG-CoA Reductase” OR “cholesterol lowering agents” OR Lipitor OR pravachol OR Zocor OR “lipid lowering agents” OR “HMG-CoA” OR “bile acid sequestrants” OR “resins” OR “fibric acid derivatives” OR “fibrates” OR “cholesterol absorption inhibitors” OR “hydroxymethylglutaryl-CoA” OR statin* OR "atorvastatin" OR "simvastatin" OR "simvastatin" OR "rosuvastatin" OR "pravastatin” OR "lovastatin" OR "pitavastatin" OR "fluvastatin" OR "cerivastatin" OR "mevastatin"

NOT
(in title) rat OR rats OR mice OR mouse OR dog OR dogs OR cats OR "case report" OR comment OR editorial OR letter OR "case control" OR "case study" OR "case series" OR "follow-up study" OR "observational study" OR "prospective cohort" OR "cohort study" OR "retrospective study" OR "non-randomized" OR allele* OR polymorphism* OR animal* OR review OR renal OR renoprotect*
Results: 0

Academic Search Premier (1980s to present)
Limit: Scholarly (Peer Reviewed) Journals
(in title) diet OR diets OR dietary OR “low fat” OR “reduced fat” OR “therapeutic lifestyle changes” OR “DASH” OR “National Cholesterol Education Program” OR “fat restricted” OR “lower fat” OR “hypolipidemic”

AND

"cardiovascular disease" OR "cardiovascular diseases" OR "heart disease" OR "heart diseases" OR "CVD" OR "CVDs" OR "hypertension" OR "high blood pressure" OR "myocardial infarction" OR "MI" OR "heart attack" OR "stroke" OR "coronary artery disease" OR "coronary heart disease" OR "cerebrovascular disease" OR "atherosclerosis" OR "arteriosclerosis" OR "peripheral vascular disease" OR "peripheral artery disease" OR "deep vein thrombosis" OR "pulmonary embolism" OR "dyslipidemia" OR "hypercholesterolemia" OR "aortic stenosis" OR "Aneurism" OR "regurgitation" OR "prolapse"

AND

“Antihyperlipidemic medication” OR “Antihyperlipidemic medications” OR statin OR statins OR “HMG-CoA Reductase” OR “cholesterol lowering agents” OR Lipitor OR pravachol OR Zocor OR “lipid lowering agents” OR “HMG-CoA” OR “bile acid sequestrants” OR “resins” OR “fibric acid derivatives” OR “fibrates” OR “cholesterol absorption inhibitors” OR “hydroxymethylglutaryl-CoA” OR statin* OR "atorvastatin" OR "simvastatin" OR "simvastatin" OR "rosuvastatin" OR "pravastatin” OR "lovastatin" OR "pitavastatin" OR "fluvastatin" OR "cerivastatin" OR "mevastatin"

NOT
(in title) rat OR rats OR mice OR mouse OR dog OR dogs OR cats OR "case report" OR comment OR editorial OR letter OR "case control" OR "case study" OR "case series" OR "follow-up study" OR "observational study" OR "prospective cohort" OR "cohort study" OR "retrospective study" OR "non-randomized" OR allele* OR polymorphism* OR animal* OR review OR renal OR renoprotect*
Results: 0

Agricola (1970-present)
Limits: journal article
(in title) diet OR diets OR dietary OR “low fat” OR “reduced fat” OR “therapeutic lifestyle changes” OR “DASH” OR “National Cholesterol Education Program” OR “fat restricted” OR “lower fat” OR “hypolipidemic”

AND

"cardiovascular disease" OR "cardiovascular diseases" OR "heart disease" OR "heart diseases" OR "CVD" OR "CVDs" OR "hypertension" OR "high blood pressure" OR "myocardial infarction" OR "MI" OR "heart attack" OR "stroke" OR "coronary artery disease" OR "coronary heart disease" OR "cerebrovascular disease" OR "atherosclerosis" OR "arteriosclerosis" OR "peripheral vascular disease" OR "peripheral artery disease" OR "deep vein thrombosis" OR "pulmonary embolism" OR "dyslipidemia" OR "hypercholesterolemia" OR "aortic stenosis" OR "Aneurism" OR "regurgitation" OR "prolapse"

AND

“Antihyperlipidemic medication” OR “Antihyperlipidemic medications” OR statin OR statins OR “HMG-CoA Reductase” OR “cholesterol lowering agents” OR Lipitor OR pravachol OR Zocor OR “lipid lowering agents” OR “HMG-CoA” OR “bile acid sequestrants” OR “resins” OR “fibric acid derivatives” OR “fibrates” OR “cholesterol absorption inhibitors” OR “hydroxymethylglutaryl-CoA” OR statin* OR "atorvastatin" OR "simvastatin" OR "simvastatin" OR "rosuvastatin" OR "pravastatin” OR "lovastatin" OR "pitavastatin" OR "fluvastatin" OR "cerivastatin" OR "mevastatin"

NOT
(in title) rat OR rats OR mice OR mouse OR dog OR dogs OR cats OR "case report" OR comment OR editorial OR letter OR "case control" OR "case study" OR "case series" OR "follow-up study" OR "observational study" OR "prospective cohort" OR "cohort study" OR "retrospective study" OR "non-randomized" OR allele* OR polymorphism* OR animal* OR review OR renal OR renoprotect*
Results: 0

CAB Direct (1973-present)
Limit to Document Type: Journal article and Evidence based research articles only
(in title) diet OR diets OR dietary OR “low fat” OR “reduced fat” OR “therapeutic lifestyle changes” OR “DASH” OR “National Cholesterol Education Program” OR “fat restricted” OR “lower fat” OR “hypolipidemic”

AND

"cardiovascular disease" OR "cardiovascular diseases" OR "heart disease" OR "heart diseases" OR "CVD" OR "CVDs" OR "hypertension" OR "high blood pressure" OR "myocardial infarction" OR "MI" OR "heart attack" OR "stroke" OR "coronary artery disease" OR "coronary heart disease" OR "cerebrovascular disease" OR "atherosclerosis" OR "arteriosclerosis" OR "peripheral vascular disease" OR "peripheral artery disease" OR "deep vein thrombosis" OR "pulmonary embolism" OR "dyslipidemia" OR "hypercholesterolemia" OR "aortic stenosis" OR "Aneurism" OR "regurgitation" OR "prolapse"

AND

“Antihyperlipidemic medication” OR “Antihyperlipidemic medications” OR statin OR statins OR “HMG-CoA Reductase” OR “cholesterol lowering agents” OR Lipitor OR pravachol OR Zocor OR “lipid lowering agents” OR “HMG-CoA” OR “bile acid sequestrants” OR “resins” OR “fibric acid derivatives” OR “fibrates” OR “cholesterol absorption inhibitors” OR “hydroxymethylglutaryl-CoA” OR statin* OR "atorvastatin" OR "simvastatin" OR "simvastatin" OR "rosuvastatin" OR "pravastatin” OR "lovastatin" OR "pitavastatin" OR "fluvastatin" OR "cerivastatin" OR "mevastatin"

NOT
(in title) rat OR rats OR mice OR mouse OR dog OR dogs OR cats OR "case report" OR comment OR editorial OR letter OR "case control" OR "case study" OR "case series" OR "follow-up study" OR "observational study" OR "prospective cohort" OR "cohort study" OR "retrospective study" OR "non-randomized" OR allele* OR polymorphism* OR animal* OR review OR renal OR renoprotect*

Results: 0

Total: 580

Appendix 3: Coding Form

MEDITERRANEAN DIET CODING FORM (JUNE 2016)

CODER_____ **Coder** (Marisa=1, Other=2)

Study Information

ID _____ **Study ID** (first 3 letters of 1st author's last name & unique ID#: *Pescatello= PES001*), _____ *(Last name, Yr)*

PUB_YR _____ **Publication year** *(consider this missing if unpublished)*

DATA _____ **Estimated year of data collection** *(earliest date for data collection or manuscript submission/publication; if unpublished and date unknown, use year manuscript was acquired; for dissertation or thesis, use year)*

LANG _____ **Language of report** 1=English 2=Spanish 3=Japanese 4=Other, specify: _____

SOURCE_____ **Publication Type** 1=journal 2=book 3=thesis/dissertation 4=conference paper 5= unpublished

SCORE _____ **Impact Score of the Journal** *(use ISI Web of Knowledge journal citation reports)*

JOURNAL NAME _____

PUBMED NAME/ ABBR. _____

FUNDING SOURCE_____ 1= Gov'nt (i.e., CDC, NIH, etc) 2= Academic/University 3= Private 4= Other

For all, *specify source/grant:* _____

NOTE_STUDY_____ **study notes (*make note of multiple arms; ex. MD vs. low fat vs. low carb + MD vs. CONTROL*):** _____

_____

Sample Characteristics *(proportion: 0.0- 1.0)* ***Note: IF ethnicity is reported, ETH_EST will be == 0***

ETH _____ **Ethnicity reported?** 1 = yes; 0 = no

PROP_WH _____ Proportion White; whole #____ **PROP_BLK** _____ Proportion Black/ whole #____

PROP_ASIAN _____ Proportion Asian/ whole #____ **PROP_MIX** _____ Proportion Mixed (other)/ whole #____

PROP_HISP _____ Proportion Latino/Hispanic/ whole #____

PROP_CARIB _____ Proportion Caribbean/ whole #____

ETH_EST _____ Assumed ethnicity (0= n/a, 1= White, 2= Asian, 3= Black, 4= Unreported, 5= Hispanic/Latino)

NUM_FemCON _____ **# of Females in Sample; Proportion (*#females/total sample*):**_____

NUM_FemIN1 _____ **# of Females in Sample; Proportion (*#females/total sample*):**_____

NUM_FemIN2 _____ **# of Females in Sample; Proportion (*#females/total sample*):**_____

NUM_FemIN3 _____ **# of Females in Sample; Proportion (*#females/total sample*):**_____

REGION_____ **Location of sample** *(if unreported, use location of first author as estimate of study location)*

1=American city: _____ **US_ZIP**_____ 2=other US region (*city= unreported*):_____

3=Canada (city: _____) 4=Europe (city: _____)

5=South/Central America, Mexico, Caribbean (city: _____) 6=Africa (city: _____)

7=Asia (city: _____) 8=Australia (city: _____)

POP _____ Population0=not reported 1=school/college 2=community (senior center, flyers, etc.) _____

3= clinical/hospital (e.g., cardiac rehab, outpatient clinic, etc.) _____

NOTE_RECRUIT **Notes on recruitment/ sample location** _____

Risk Characteristics*- report values of* ***baseline data*** *(check methods or descriptive tables)* ***KEEP DATA SEPARATE FOR GROUPS***

TOTAL_POP _____ **Reported as total sample?** (1=yes, 0=no) **if data is collapsed, not separate for groups, chose YES*

Characteristic	CONTROL/ COMPARISON *n*=____ (total sample)	IN1 *n*=____ (total sample), specify intervention_____	IN2 *n*=____ (total sample), specify intervention_____	IN3 *n*=____ (total sample), specify intervention_____
Mean age (years)	AGE	AGE	AGE	AGE
SD for age (years)	AGE_SD	AGE_SD	AGE_SD	AGE_SD
Known disease/ chronic conditions 0= Healthy 1= CVD(s) (i.e., CAD, PAD, HF, MI) 2= Stroke 3= Diabetes 4= MetS 5= Arthritis 6= Dyslipidemia 7= Obesity 8= Other, specify:_____ 9= Multiple, specify #s:_____	DISEASE	DISEASE	DISEASE	DISEASE
If disease: report prop. & number	PROP_DISEASE	PROP_DISEASE	PROP_DISEASE	PROP_DISEASE

Characteristic	CONTROL/ COMPARISON n=____ (total sample)	IN1 n=____ (total sample), specify intervention_____	IN2 n=____ (total sample), specify intervention_____	IN3 n=____ (total sample), specify intervention_____
If "healthy" denote 0= n/a; if missing="."	NumberDisease	NumberDisease	NumberDisease	NumberDisease
Medication use (0=no, 1= yes)	MED	MED	MED	MED
Lipid-lowering drug use (0=no, 1= yes)	LIP_LOW	LIP_LOW	LIP_LOW	LIP_LOW
Lipid-lowering Drug Type ***(if none= 0)*** 1= Statins 2= Fibrates 3= Nicotinic Acid 4= PCSK9 Inhibitors 5= Bile acid resins 6=Type not specified ("lipid-lowering med") 7= Other, specify: _____ 8= Multiple, specify: _____	LIP_TYPE	LIP_TYPE	LIP_TYPE	LIP_TYPE
If yes, report prop & number; *if no meds, use 0=NA (if missing =".")*	PROP_LIP NumberLIP	PROP_LIP NumberLIP	PROP_LIP NumberLIP	PROP_LIP NumberLIP
Lipid-lowering Drug Dosage? (. = Dose missing)	LIP_DOSE	LIP_DOSE	LIP_DOSE	LIP_DOSE
BP Medication use *(1= yes, 0=no) If unreported == "."*	BPMedUse	BPMedUse	BPMedUse	BPMedUse
BP Med Type ***(if no meds= 0)*** 1= β Blockers 2= Nitrates 3= Angiotensin II receptor blockers 4= Angiotension Converting Enzyme (ACE) Inhibitors 5= Diuretics 6= Alpha blockers 7= Ca^{2} Channel Blockers 8= Alpha-2 Receptor Antagonist 9= Type not specified ("antihypertensive") 10= Other, specify: 11= Multiple, specify: _____	BPMed_TYPE	BPMed_TYPE	BPMed_TYPE	BPMed_TYPE
If yes, report prop. & number *(if "no"=0, NA; if missing denote=".")*	BPMedProp BPMedNumber	BPMedProp BPMedNumber	BPMedProp BPMedNumber	BPMedProp BPMedNumber
If taking meds, is BP controlled? yes= 1, if SBP≤140 **OR** DBP≤90; **no= 0,** SBP>140 OR DBP>90 *("if no BP use == NA)*	BPControl	BPControl	BPControl	BPControl
Other Medication use (0=no, 1= yes)	MED_OTHER	MED_OTHER	MED_OTHER	MED_OTHER
Medication Type ***(if no meds= 0)*** 1= NSAIDs 2= Aspirin 3= Insulin 4= Anti-coagulant 5= Oral hypoglycemic agent 6= Anti-platelet aggregation 7= Multiple, specify: _____	MED_TYPE	MED_TYPE	MED_TYPE	MED_TYPE
LIFESTYLE VARIABLES				
Oral Contraceptive (0=no, 1= yes) OR **Hormone replacement therapy**	OC_USE HRT_USE	OC_USE HRT_USE	OC_USE HRT_USE	OC_USE HRT_USE
Smokers/smokers (≤6 months) (0=no,1=yes; if missing = ".")	SMOKE	SMOKE	SMOKE	SMOKE
If yes, report smoker prop. & number	PROP_SMOKE NumberSMOKE	PROP_SMOKE NumberSMOKE	PROP_SMOKE NumberSMOKE	PROP_SMOKE NumberSMOKE
Nutritional Supplements Permitted? (0=no, 1=yes)	SUPP	SUPP	SUPP	SUPP
If yes, specify type	TYPE	TYPE	TYPE	TYPE

Characteristic	CONTROL/ COMPARISON *n*=____ (total sample)	IN1 *n*=____ (total sample), specify intervention_____	IN2 *n*=____ (total sample), specify intervention_____	IN3 *n*=____ (total sample), specify intervention_____
Consume Alcohol? (0=no, 1=yes)	ALC	ALC	ALC	ALC
If yes, how many drinks/week?	AMT	AMT	AMT	AMT
If yes, what type of alcohol?	ALCTYPE	ALCTYPE	ALCTYPE	ALCTYPE
Amount of exercise per week (in min)	EX	EX	EX	EX
Type of exercise (e.g., cardio, strength training)				

NOTE_RISK **Notes on risk characteristics relevant to coding** _____

Methods & Design

CON_GRP _____ **Type of control group used**

1= random assignment of individuals to conditions including a non-diet control group, specify_____
2= random assignment of individuals to conditions including non-diet control session
3= random assignment of individuals to non-MD condition/diet
4= random assignment of individuals a non-diet control group
5= other, specify: _____

Experiment/ Intervention Conditions

EXPERIMENT_____ **INTERVENTIONS/EXPERIMENTAL CONDITION(S)**

1= non-diet control/comparison + 1 intervention
2= non-diet control/comparison + 2 interventions
3= non-diet control/comparison + 3 interventions
4= diet control/comparison + 1 intervention
5= diet control/comparison + 2 interventions
6= diet control/comparison + 3 interventions
7= crossover design

EXP_SETTING_____ **Setting of intervention(s)** 1= hospital 2= clinic 3= academic/research lab 4= fitness center, gym
5= Other, specify: _____ 6= multiple, specify:_____

DIET_MONITOR_____ **Was diet adherence monitored?** (0= none; 1= yes) **If yes, specify:**
_____

BEHAV_TECH_____**Behavioral technique/monitoring system used?**(0=none, 1=yes) **If yes, specify-**
_____
Examples: positive reinforcement/contingency management, exercise & lifestyle information/lectures; PA logs, etc.

INTER_LVL_____ **Level of intervention *or supervision* used in the study**
1=primarily 1-on-1 2=small group processes (supervisor & group members) 3= supervised session(s)
4= unsupervised session(s) 5=incentive (payment based on sessions attended)
6= multiply, specify #'s:_____

NOTE_EXP & METHODS **Notes related to study design & delivery of intervention:** _____

Diet Intervention Characteristics

DIET CHARACTERISTICS	CONTROL/ COMPARISON	IN1	IN2	IN3
LENGTH___(in weeks)	LENGTH__	LENGTH__	LENGTH__	LENGTH__
WTGain/WTLoss___ (1=loss, 2=gain, 3=maintain, 4=unspecified)	WTGain/WTLoss___	WTGain/WTLoss___	WTGain/WTLoss___	WTGain/WTLoss___
PART_LOST # *of drop outs*				
ADHERENCE (report %) *If reported as # of sessions completed, use==* ($\frac{\text{completed sessions}}{\text{total sessions}}$ x 100)				
Were medications used as part of the intervention? (0=no, 1=yes)	MEDS__	MEDS__	MEDS__	MEDS__

MEDITERRANEAN DIET CODING FORM (JUNE 2016)

DIET CHARACTERISTICS	CONTROL/ COMPARISON	IN1	IN2	IN3
If yes, specify 1= β Blockers 2= Nitrates 3= Ca^{2} Channel Blockers 4= Angiotension Converting Enzyme (ACE) Inhibitors 5= Diuretics 6= Vasodilators 7= NSAIDs 8= Aspirin 9= Statins 10=Other, specify: 11= Multiple, specify: _____	MED__TYPE	MED__TYPE	MED__TYPE	MED__TYPE
MED_DOSE 1 = Yes, specify _____mg 2 = No	MED_DOSE	MED_DOSE	MED_DOSE	MED_DOSE
DIET__TYPE **(1=MedDiet, 2=low-fat, 3=high protein, 4=low-carb, 5=other, specify)**	DIET__TYPE	DIET__TYPE	DIET__TYPE	DIET__TYPE
Provision of Med Diet Foods? (0=no, 1=yes)				
If yes, type and amount___ 1=olive oil (amt:____) 2=nuts (amt:____) 3=fruits (amt:____) 4=fish (amt:____) 5=dairy (amt:____) 6=multiple				
Diet specification reported as a distribution of macronutrients? (0=no, 1=yes)				
If yes, specify PropCHO___ PropSatFAT___ PropTotFAT___ PropPRO___	PropCHO___ PropSatFAT___ PropTotFAT___ PropPRO___	PropCHO___ PropSatFAT___ PropTotFAT___ PropPRO___	PropCHO___ PropSatFAT___ PropTotFAT___ PropPRO___	PropCHO___ PropSatFAT___ PropTotFAT___ PropPRO___
KCAL_TOTAL_BASE(kcal/day) **KCAL_TOTAL_END** (kcal/day) **KCAL_Rx** Prescribed kcals per day **KCAL_REPORT** Reported kcals per day	_____ _____ _____ _____	_____ _____ _____ _____	_____ _____ _____ _____	_____ _____ _____ _____
Energy restriction (kcal or %) **KCAL_RES** (unit= kcal) OR **RES_PERCENT** (%)				
SOD_INTAKE (mg/day)				
POT_INTAKE (mg/day)				
FAT_INTAKE (g/day) *Unsaturated*: **FAT_UNSAT** *Saturated*: **FAT_SAT** *Cholesterol*: **FAT_CHOL**	_____ _____ _____	_____ _____ _____	_____ _____ _____	_____ _____ _____
Dietary Fiber Intake (g/day) **FIB_INTAKE**				
Servings/week: Fruit and/or Vegetables VEG_SER				
Servings/week: Dairy DAIRY_SER				
Servings/week: Wine WINE_SER				
Servings/week: Whole Grains GRAIN_SER				
Servings/week: Fish FISH_SER				
Servings/week: Olive Oil OIL_SER				
Servings/week: Nuts NUTS_SER				
Servings/week: Legumes LEG_SER				
Servings/week: Red/processed meat MEAT_SER				
Servings/week: Poultry POUL_SER				

MEDITERRANEAN DIET CODING FORM (JUNE 2016)

DIET CHARACTERISTICS	CONTROL/ COMPARISON	IN1	IN2	IN3
Dietary Compliance & Counseling				
DI_COMPLIANCE *Was Dietary compliance assessed?* 0= No; 1= Yes)				
If yes, specify: (1=FFQ, 2=Food journal, 3=phone interviewing, 4=24 hr recall, 5=other,specify____)				
Was diet adherence measured pre, during, or post intervention? (1=pre, 2=during, 3=post, 4=pre,during, and post, 5=pre and post, 6=not reported)				
Is a scale used to measure adherence? (0=no, 1=yes)				
If yes, specify type of scale used___				
DI_COUNSELING *Participation in dietary counseling?* 0= no; 1= yes				
If Dietary Counseling was provided, report: **COUNSEL_HR** *hours per week* **COUNSEL_SESS** *sessions per week*	_____ _____	_____ _____	_____ _____	_____ _____
DIET_TOPIC *If Dietary Counseling was provided, briefly state topics covered*				
QoL *Was Quality of Life (QoL) assessed?* 0=no, 1=yes, *if yes, report tool or scale*				
NOTE_DIET *Report here any notes relevant to the dietary intervention, counseling, implementation, etc.*				
# of follow-ups				
Interval of follow-ups				

Appendix 4: Methodological Quality Control Coding Form

- MQ1____ Random assignment
  - 0 =Violated randomization and/or nonequivalence of comparison group was not addressed
  - 1 = Quasi-experimental design; arbitrary assignment; sequential; how: _____
  - 2 = Random assignment of groups of individuals. What unit: _____
  - 3 = Matching individuals on some variable What variable/s: _____
  - 4 = True randomization (i.e., participants had equal chance of receiving intervention)
- MQ2____ Quality control 0 = No standardization of treatment is specified
  - 1 = Treatment standardized by manual, specific training, content coding, video as main intervention strategy, etc
- MQ3____ Pretest post-test design (at least one measure pre-post)? (0 = No, 1 = Yes)
- MQ4____ Follow-up rate (i.e., largest FU rate at any delayed post-test, overall)
  - 2 = 85-100% completed 1 = 70 – 84% completed 0 = <70%
- MQ5____ Follow-up length (i.e., final assessment interval)
  - 2 = 6 months or longer 1 = > 3 months or < 6 months 0 = less than 3 months
- MQ6____ Anonymity attempted (if face-to-face interviews, mark as '0')
  - (0 = No/NR, 1 = Yes)
- MQ7____ Low reactivity of measure completion (If they do not mention, code ".")
  - 0 = no, intervention and measurement staff same and face-to-face interviews used
  - 1 = yes, used different personnel for intervention and measurement (face-to-face) or measurement technique not highly reactive (written rather than oral questions, even if given by same person as intervention)
- MQ8____ Collateral verification of self-report
  - 0 = No collateral verification, not reported
  - 1 = At least some collaterals interviewed; if known, _____%
- MQ9____ Used objective measures (at FUP, not just baseline or for inclusion criteria)
- MQ10____ Withdrawal/Drop-outs (**This category applies to cases that withdrew after randomization)
  - 0 = Not reported or all non-completers were excluded from analyses
  - 1 = Enumerated and/or compared with completed cases (e.g., intent-to-treat; baseline differences)
- MQ11____Attrition (**This category applies to cases lost to follow-up after treatment) 0 = Cases lost to follow-up are not considered in outcome reporting
  - 1 = Enumerated and considered in outcome reporting (e.g., included in all possible analyses, imputed the mean for lost cases, compared with non-attrition at baseline)
- MQ12____ Independent/Double-blinding
  - 0 = Follow-up non-blind, unspecified, or questionnaire only
  - 1 = Follow-up assessment completed by independent interviewer blind to group assignment
- MQ13____Analyses
  - 0 = No inferential statistical analysis; inappropriate, or unspecified
  - 1 = Appropriate statistical analyses of group or time points differences (e.g., comparing two groups/measures using at least a t or F test but did not control for other characteristics). Code this category as well if they mention that groups were comparable but do not report any statistical information about them at baseline or they do not mention any statistical test they used to demonstrate they did it.(i.e. test to compare group at FUP)
  - 2 = Controlled for baseline and/or other characteristics in appropriate statistical analyses of group differences (e.g., compared two groups using at least a t or F test) (i.e. test to compare groups at FUP that controls for baseline, or no baseline differences found through test and thus no need to control for post comparison)
- MQ14____Pilot testing 0 = None previous pilot testing of the intervention.
  - 1 = There was a previous pilot testing of the intervention.
- MQ15____Intervention content matched to

○ 0 = No objective measure used or unspecified (i.e., self-report only) ○ 1 = Objective measures used in more than 50% of the cases	sample (0 = No/NR, 1 = Yes) • MQ16____Incentives Offered (0 = No, 1 = Yes) • MQ17____Total Methodological Quality Score (out of 22 pts)

Appendix 5: SAS Code

```
proc means data=mdstatin n sum mean max min range std;
run;
proc freq data=mdstatin;
run;

proc means data=LFDstatin n sum mean max min range std;
run;
proc freq data=LFDstatin;
run;
```

Appendix 6: R Code for Mediterranean Diet

Fixed- and Random-Effects Models

```
> model1<-rma(d.ex.,var_d.ex.,subset=(Diet==1&Outcome==1),
data=MedDietStatins, method="FE")
> model1

> model2<-rma(d.ex.,var_d.ex.,subset=(Diet==1&Outcome==1),
data=MedDietStatins, method="REML")
> model2

>model3<-rma(d.ex.,var_d.ex.,subset=(Diet==1&Outcome==2),
data=MedDietStatins, method="FE")
> model3

> model4<-rma(d.ex.,var_d.ex.,subset=(Diet==1&Outcome==2),
data=MedDietStatins, method="REML")
> model4

> model5<-rma(d.ex.,var_d.ex.,subset=(Diet==1&Outcome==3),
data=MedDietStatins, method="FE")
> model5

>model6<-rma(d.ex.,var_d.ex.,subset=(Diet==1&Outcome==3),
data=MedDietStatins, method="REML")
> model6

> model7<-rma(d.ex.,var_d.ex.,subset=(Diet==1&Outcome==4),
data=MedDietStatins, method="FE")
> model7
```

```
> model8<-rma(d.ex.,var_d.ex.,subset=(Diet ==1&Outcome==4),
data=MedDietStatins, method="REML")
> model8
```

Forest Plots

```
forest(model2, xlim=c(-10,10), xlab="Standardized Mean Difference", cex=0.8,
efac=2, col="dark red", border="black")
op<-par(cex=1.00, font=2, col="black")
op<-par(cex=0.85, font=2, col="dark red")
text (0,15.5, "Triglycerides") #the first number indicates where the title starts and
the second number how high in the plot
text(c(-4,4),14.5,c("Favors Intervention", "Favors Baseline"))
text(-10,14.5, "Author(s) and Year", pos=4)
text(8,14.5, "d[95%CI]", pos=4)
par(op)

forest(model4, xlim=c(-10,10), xlab="Standardized Mean Difference", cex=0.8,
efac=2, col="dark red", border="black")
op<-par(cex=0.85, font=2, col="black")
op<-par(cex=0.85, font=2, col="dark red")
text (0,12.5, "Total Cholesterol")
text(c(-4,4),11.5,c("Favors Intervention", "Favors Baseline"))
text(-10,11.5, "Author(s) and Year", pos=4)
text(8,11.5, "d[95%CI]", pos=4)
par(op)

forest(model6, xlim=c(-10,10), xlab="Standardized Mean Difference", cex=0.8,
efac=2, col="dark red", border="black")
op<-par(cex=0.85, font=2, col="black")
op<-par(cex=0.85, font=2, col="dark red")
text (0,14.5, "LDL-Cholesterol")
text(c(-4,4),13.5,c("Favors Intervention", "Favors Baseline"))
text(-10,13.5, "Author(s) and Year", pos=4)
text(8,13.5, "d[95%CI]", pos=4)
par(op)

forest(model8, xlim=c(-10,10), xlab="Standardized Mean Difference", cex=0.8,
efac=2, col="dark red", border="black")
op<-par(cex=0.85, font=2, col="black")
op<-par(cex=0.85, font=2, col="dark red")
text (0,15.5, "HDL-Cholesterol")
text(c(-4,4),14.5,c("Favors Baseline", "Favors Intervention"))
text(-10,14.5, "Author(s) and Year", pos=4)
text(8,14.5, "d[95%CI]", pos=4)
par(op)
```

Publication Bias

```
#Egger's
> regtest(model1, model="lm", data=MedDietStatins)
```

```
> regtest(model3, model="lm", data= MedDietStatins)

> regtest(model5, model="lm", data= MedDietStatins)

> regtest(model7, model="lm", data= MedDietStatins)

#Begg's
> ranktest(model1, data= MedDietStatins)

> ranktest(model3, data= MedDietStatins)

> ranktest(model5, data= MedDietStatins)

> ranktest(model7, data= MedDietStatins)

#Trim-and-Fill with Funnel Plots
> MTGtrim=trimfill(model1, data= MedDietStatins)
> funnel(MTGtrim)

> MTCtrim=trimfill(model3, data= MedDietStatins)
> funnel(MTCtrim)

>MLDLtrim=trimfill(model5, data= MedDietStatins)
>funnel(MLDLtrim)

> MHDLtrim=trimfill(model7, data= MedDietStatins)
>funnel(MHDLtrim)
```

Risk of Bias

```
RanSeq
> MTGbias <-rma(d.ex.,var_d.ex., subset=(Diet==1 & Outcome==1),
mods=~factor(RanSeq), data=Quality, method="REML")
> Summary(MTGbias)

>MCholbias<-rma(d.ex.,var_d.ex., subset=(Diet==1 & Outcome==2),
mods=~factor(RanSeq), data=Quality, method="REML")
> Summary(MTGbias)

>MLDLbias<-rma(d.ex.,var_d.ex., subset=(Diet==1 & Outcome==3),
mods=~factor(RanSeq), data=Quality, method="REML")
> Summary(MTGbias)

>MHDLbias<-rma(d.ex.,var_d.ex., subset=(Diet==1 & Outcome==4),
mods=~factor(AllCon)-1, data=Quality, method="REML")
> Summary(MHDLbias)
RanSeq-1
> MTGbias <-rma(d.ex.,var_d.ex., subset=(Diet==1&Outcome==1), mods= ~
factor(RanSeq)-1, data=Quality, method="REML")
> Summary(MTGbias)
```

>MCholbias<-rma(d.ex.,var_d.ex., subset=(Diet==1 & Outcome==2),
mods=~factor(RanSeq)-1, data=Quality, method="REML")
> Summary(MTGbias)

>MLDLbias<-rma(d.ex.,var_d.ex., subset=(Diet==1 & Outcome==3),
mods=~factor(RanSeq)-1, data=Quality, method="REML")
> Summary(MTGbias)

>MHDLbias<-rma(d.ex.,var_d.ex., subset=(Diet==1 & Outcome==4),
mods=~factor(RanSeq)-1, data=Quality, method="REML")
> Summary(MHDLbias)

AllCon
> MTGbias <-rma(d.ex.,var_d.ex., subset=(Diet==1 & Outcome==1),
mods=~factor(AllCon), data=Quality, method="REML")
> Summary(MTGbias)

>MCholbias<-rma(d.ex.,var_d.ex., subset=(Diet==1 & Outcome==2),
mods=~factor(AllCon), data=Quality, method="REML")
> Summary(MTGbias)

>MLDLbias<-rma(d.ex.,var_d.ex., subset=(Diet==1 & Outcome==3),
mods=~factor(AllCon), data=Quality, method="REML")
> Summary(MTGbias)

>MHDLbias<-rma(d.ex.,var_d.ex., subset=(Diet==1 & Outcome==4),
mods=~factor(AllCon), data=Quality, method="REML")
> Summary(MHDLbias)

AllCon-1
> MTGbias <-rma(d.ex.,var_d.ex., subset=(Diet==1 & Outcome==1),
mods=~factor(AllCon)-1, data=Quality, method="REML")
> Summary(MTGbias)

>MCholbias<-rma(d.ex.,var_d.ex., subset=(Diet==1 & Outcome==2),
mods=~factor(AllCon)-1, data=Quality, method="REML")
> Summary(MTGbias)

>MLDLbias<-rma(d.ex.,var_d.ex., subset=(Diet==1 & Outcome==3),
mods=~factor(AllCon)-1, data=Quality, method="REML")
> Summary(MTGbias)

>MHDLbias<-rma(d.ex.,var_d.ex., subset=(Diet==1 & Outcome==4),
mods=~factor(AllCon)-1, data=Quality, method="REML")
> Summary(MHDLbias)
Blinding
> MTGbias <-rma(d.ex.,var_d.ex., subset=(Diet==1 & Outcome==1),
mods=~factor(Blinding), data= Quality, method="REML")
> Summary(MTGbias)

```
>MCholbias<-rma(d.ex.,var_d.ex., subset=(Diet==1 & Outcome==2),
mods=~factor(Blinding), data= Quality, method="REML")
> Summary(MTGbias)

>MLDLbias<-rma(d.ex.,var_d.ex., subset=(Diet==1 & Outcome==3),
mods=~factor(Blinding), data= Quality, method="REML")
> Summary(MTGbias)

>MHDLbias<-rma(d.ex.,var_d.ex., subset=(Diet==1 & Outcome==4),
mods=~factor(Blinding), data=Quality, method="REML")
> Summary(MHDLbias)
```

Blinding-1

```
> MTGbias <-rma(d.ex.,var_d.ex., subset=(Diet==1 & Outcome==1),
mods=~factor(Blinding)-1, data=Quality, method="REML")
> Summary(MTGbias)

>MCholbias<-rma(d.ex.,var_d.ex., subset=(Diet==1 & Outcome==2),
mods=~factor(Blinding)-1, data=Quality, method="REML")
> Summary(MTGbias)

>MLDLbias<-rma(d.ex.,var_d.ex., subset=(Diet==1 & Outcome==3),
mods=~factor(Blinding)-1, data=Quality, method="REML")
> Summary(MTGbias)

>MHDLbias<-rma(d.ex.,var_d.ex., subset=(Diet==1 & Outcome==4),
mods=~factor(Blinding)-1, data= Quality, method="REML")
> Summary(MHDLbias)
```

Incomp

```
> MTGbias <-rma(d.ex.,var_d.ex., subset=(Diet==1 & Outcome==1),
mods=~factor(Incomp), data= Quality, method="REML")
> Summary(MTGbias)

>MCholbias<-rma(d.ex.,var_d.ex., subset=(Diet==1 & Outcome==2),
mods=~factor(Incomp), data= Quality, method="REML")
> Summary(MTGbias)

>MLDLbias<-rma(d.ex.,var_d.ex., subset=(Diet==1 & Outcome==3),
mods=~factor(Incomp), data= Quality, method="REML")
> Summary(MTGbias)

>MHDLbias<-rma(d.ex.,var_d.ex., subset=(Diet==1 & Outcome==4),
mods=~factor(Incomp), data= Quality, method="REML")
> Summary(MHDLbias)
```

Incomp-1

```
> MTGbias <-rma(d.ex.,var_d.ex., subset=(Diet==1 & Outcome==1),
mods=~factor(Incomp)-1, data=Quality, method="REML")
> Summary(MTGbias)
```

>MCholbias<-rma(d.ex.,var_d.ex., subset=(Diet==1 & Outcome==2),
mods=~factor(Incomp)-1, data=Quality, method="REML")
> Summary(MTGbias)

>MLDLbias<-rma(d.ex.,var_d.ex., subset=(Diet==1 & Outcome==3),
mods=~factor(Incomp)-1, data= Quality, method="REML")
> Summary(MTGbias)

>MHDLbias<-rma(d.ex.,var_d.ex., subset=(Diet==1 & Outcome==4),
mods=~factor(Incomp)-1, data= Quality, method="REML")
> Summary(MHDLbias)

Select
> MTGbias <-rma(d.ex.,var_d.ex., subset=(Diet==1 & Outcome==1),
mods=~factor(Select), data= Quality, method="REML")
> Summary(MTGbias)

>MCholbias<-rma(d.ex.,var_d.ex., subset=(Diet==1 & Outcome==2),
mods=~factor(Select), data= Quality, method="REML")
> Summary(MTGbias)

>MLDLbias<-rma(d.ex.,var_d.ex., subset=(Diet==1 & Outcome==3),
mods=~factor(Select), data= Quality, method="REML")
> Summary(MTGbias)

>MHDLbias<-rma(d.ex.,var_d.ex., subset=(Diet==1 & Outcome==4),
mods=~factor(Select), data= Quality, method="REML")
> Summary(MHDLbias)

Select-1
> MTGbias <-rma(d.ex.,var_d.ex., subset=(Diet==1 & Outcome==1),
mods=~factor(Select)-1, data= Quality, method="REML")
> Summary(MTGbias)

>MCholbias<-rma(d.ex.,var_d.ex., subset=(Diet==1 & Outcome==2),
mods=~factor(Select)-1, data=Quality, method="REML")
> Summary(MTGbias)

>MLDLbias<-rma(d.ex.,var_d.ex., subset=(Diet==1 & Outcome==3),
mods=~factor(Select)-1, data=Quality, method="REML")
> Summary(MTGbias)

>MHDLbias<-rma(d.ex.,var_d.ex., subset=(Diet==1 & Outcome==4),
mods=~factor(Select)-1, data= Quality, method="REML")
> Summary(MHDLbias)

OtherBias
> MTGbias <-rma(d.ex.,var_d.ex., subset=(Diet==1 & Outcome==1),
mods=~factor(OtherBias), data= Quality, method="REML")
> Summary(MTGbias)

>MCholbias<-rma(d.ex.,var_d.ex., subset=(Diet==1 & Outcome==2),
mods=~factor(OtherBias), data= Quality, method="REML")
> Summary(MTGbias)

>MLDLbias<-rma(d.ex.,var_d.ex., subset=(Diet==1 & Outcome==3),
mods=~factor(OtherBias), data= Quality, method="REML")
> Summary(MTGbias)

>MHDLbias<-rma(d.ex.,var_d.ex., subset=(Diet==1 & Outcome==4),
mods=~factor(OtherBias), data= Quality, method="REML")
> Summary(MHDLbias)

OtherBias-1
> MTGbias <-rma(d.ex.,var_d.ex., subset=(Diet==1 & Outcome==1),
mods=~factor(OtherBias)-1, data= Quality, method="REML")
> Summary(MTGbias)

>MCholbias<-rma(d.ex.,var_d.ex., subset=(Diet==1 & Outcome==2),
mods=~factor(OtherBias)-1, data= Quality, method="REML")
> Summary(MTGbias)

>MLDLbias<-rma(d.ex.,var_d.ex., subset=(Diet==1 & Outcome==3),
mods=~factor(OtherBias)-1, data= Quality, method="REML")
> Summary(MTGbias)

>MHDLbias<-rma(d.ex.,var_d.ex., subset=(Diet==1 & Outcome==4),
mods=~factor(OtherBias)-1, data= Quality, method="REML")
> Summary(MHDLbias)

Moderator Analysis

#Statins
> model9<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1),
mods=Prop_Statins, data= MedDietStatins, method="REML")
> model9

> model10<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==2), mods=
Prop_Statins, data= MedDietStatins, method="REML")
> model10

> model11<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==3), mods=
Prop_Statins, data= MedDietStatins, method="REML")
>model11

> model12<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==4), mods=
Prop_Statins, data= MedDietStatins, method="REML")
> model12

Length of Intervention

```
> MTGwks<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1),
mods=Weeks, data= MedDietStatins, method="REML")
> MTGwks

> MCholwks<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==2), mods=
Weeks, data= MedDietStatins, method="REML")
> MCholwks

> MLDLwks<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==3), mods=
Weeks, data= MedDietStatins, method="REML")
> MLDLwks

> MHDLwks<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==4), mods=
Weeks, data= MedDietStatins, method="REML")
> MHDLwks

# Proportion of Females
> MTGfem<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1),
mods=Female, data= MedDietStatins, method="REML")
> MTGfem

> MCholfem<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==2), mods=
Female, data= MedDietStatins, method="REML")
> MCholfem

> MLDLfem<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==3), mods=
Female, data= MedDietStatins, method="REML")
> MLDLfem

> MHDLfem<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==4), mods=
Female, data= MedDietStatins, method="REML")
> MHDLfem

# Region (Europe)
> MTGregion<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1),
mods=(Region==2), data= MedDietStatins, method="REML")
> MTGregion

> MCholregion<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==2),
mods=(Region==2), data= MedDietStatins, method="REML")
> MCholregion

> MLDLregion<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==3), mods=
(Region==2), data= MedDietStatins, method="REML")
> MLDLregion

> MHDLregion<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==4),
mods=(Region==2), data= MedDietStatins, method="REML")
> MHDLregion

# Hypertension
```

```
> MTGHTN<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1), mods= HTN,
data= MedDietStatins, method="REML")
> MTGHTN

> MCholHTN<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==2), mods=
HTN, data= MedDietStatins, method="REML")
> MCholHTN

> MLDLHTN<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==3), mods=
HTN, data= MedDietStatins, method="REML")
> MLDLHTN

> MHDLHTN<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==4), mods=
HTN, data= MedDietStatins, method="REML")
> MHDLHTN

# Dyslipidemia
> MTGdys<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1), mods=Dys,
data= MedDietStatins, method="REML")
> MTGdys

> MCholdys<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==2), mods= Dys,
data= MedDietStatins, method="REML")
> MCholdys

> MLDLdys<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==3), mods= Dys,
data= MedDietStatins, method="REML")
> MLDLdys

#Med Diet and HDL-Cholesterol
> MHDLdys<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==4), mods= Dys,
data= MedDietStatins, method="REML")
> MHDLdys

# Current Smokers
> MTGSmoke<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1),
mods=Smoke, data= MedDietStatins, method="REML")
> MTGSmoke

> MCholSmoke <-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==2), mods=
Smoke, data= MedDietStatins, method="REML")
> MCholSmoke

> MLDLSmoke<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==3), mods=
Smoke, data= MedDietStatins, method="REML")
> MLDLSmoke

> MHDLSmoke<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==4), mods=
Smoke, data= MedDietStatins, method="REML")
> MHDLSmoke
```

```
# Impact Factor
> MTGIPP<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1), mods=IPP,
data= MedDietStatins, method="REML")
> MTGIPP

> MCholIPP <-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==2), mods=
IPP, data= MedDietStatins, method="REML")
> MCholIPP

> MLDLIPP<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==3), mods= IPP,
data= MedDietStatins, method="REML")
> MLDLIPP

> MHDLIPP<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==4), mods= IPP,
data= MedDietStatins, method="REML")
> MHDLIPP

#Mean Age
> MTGage<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1), mods=Age,
data= MedDietStatins, method="REML")
> MTGage

> MCholage <-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==2), mods=
Age, data= MedDietStatins, method="REML")
> MCholage

> MLDLage<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==3), mods= Age,
data= MedDietStatins, method="REML")
> MLDLage

> MHDLage <-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==4), mods=
Age, data= MedDietStatins, method="REML")
> MHDLage

#Proportion Fat Intake
> MTGfat<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1), mods=Fat,
data= MedDietStatins, method="REML")
> MTGfat

> MCholfat <-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==2), mods= Fat,
data= MedDietStatins, method="REML")
> MCholfat

> MLDLfat<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==3), mods= Fat,
data= MedDietStatins, method="REML")
> MLDLfat

> MHDLfat <-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==4), mods= Fat,
data= MedDietStatins, method="REML")
> MHDLfat
```

```
# Length Between Follow-Up
> MTGfu<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1), mods=
FollowUp, data= MedDietStatins, method="REML")
> MTGfu

> MCholfu <-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==2), mods=
FollowUp, data= MedDietStatins, method="REML")
> MCholfu

> MLDLfu<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==3), mods=
FollowUp, data= MedDietStatins, method="REML")
> MLDLfu

> MHDLfu <-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==4), mods=
FollowUp, data= MedDietStatins, method="REML")
> MHDLfu

# Number of Follow-Ups
> MTGnofu<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1),
mods=NoFollowUp, data= MedDietStatins, method="REML")
> MTGnofu

> MCholnofu <-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==2), mods=
NoFollowUp, data= MedDietStatins, method="REML")
> MCholnofu

> MLDLnofu<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==3), mods=
NoFollowUp, data= MedDietStatins, method="REML")
> MLDLnofu

> MHDLnofu <-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==4), mods=
NoFollowUp, data= MedDietStatins, method="REML")
> MHDLnofu

# Provision of Food
> MTGProv<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1),
mods=Provision, data= MedDietStatins, method="REML")
> MTGProv

> MCholProv <-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==2), mods=
Provision, data= MedDietStatins, method="REML")
> MCholProv

> MLDLProv<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==3), mods=
Provision, data= MedDietStatins, method="REML")
> MLDLProv

> MHDLProv <-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==4), mods=
Provision, data= MedDietStatins, method="REML")
> MHDLProv
```

```
#Level of Supervision in Intervention
> MTGInterlvl<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1),
mods=Interlvl, data= MedDietStatins, method="REML")
> MTGInterlvl

> MCholInterlvl <-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==2), mods=
Interlvl, data= MedDietStatins, method="REML")
> MCholInterlvl

> MLDLInterlvl<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==3), mods=
Interlvl, data= MedDietStatins, method="REML")
> MLDLInterlvl

> MHDLInterlvl <-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==4), mods=
Interlvl, data= MedDietStatins, method="REML")
> MHDLInterlvl

# Level of Supervision (One-on-one)
> MTGInterlvl1<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1),
mods=(Interlvl==1), data= MedDietStatins, method="REML")
> MTGInterlvl1

> MCholInterlvl1 <-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==2), mods=
(Interlvl==1), data= MedDietStatins, method="REML")
> MCholInterlvl1

> MLDLInterlvl1<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==3), mods=
(Interlvl==1), data= MedDietStatins, method="REML")
> MLDLInterlvl1

> MHDLInterlvl1 <-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==4), mods=
(Interlvl==1), data= MedDietStatins, method="REML")
> MHDLInterlvl1

#Level of Supervision (Small Group)
> MTGInterlvl2<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1),
mods=(Interlvl==2), data= MedDietStatins, method="REML")
> MTGInterlvl2

> MCholInterlvl2 <-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==2), mods=
(Interlvl==2), data= MedDietStatins, method="REML")
> MCholInterlvl2

> MLDLInterlvl2<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==3), mods=
(Interlvl==2), data= MedDietStatins, method="REML")
> MLDLInterlvl2

> MHDLInterlvl2 <-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==4), mods=
(Interlvl==2), data= MedDietStatins, method="REML")
> MHDLInterlvl2
```

```
# Methodological Quality Score
> MTGMQ<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1), mods=MQ,
data= MedDietStatins, method="REML")
> MTGMQ

> MCholMQ <-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==2), mods=
MQ, data= MedDietStatins, method="REML")
> MCholMQ

> MLDLMQ<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==3), mods= MQ,
data= MedDietStatins, method="REML")
> MLDLMQ

> MHDLMQ<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==4), mods= MQ,
data= MedDietStatins, method="REML")
> MHDLMQ

# Reported Use of Blood Pressure Medication
> MTGBPMed<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1),
mods=BPMed, data= MedDietStatins, method="REML")
> MTGBPMed

> MCholBPMed <-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==2), mods=
BPMed, data= MedDietStatins, method="REML")
> MCholBPMed

> MLDLBPMed<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==3), mods=
BPMed, data= MedDietStatins, method="REML")
> MLDLBPMed

> MHDLBPMed<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==4), mods=
BPMed, data= MedDietStatins, method="REML")
> MHDLBPMed

#No Blood Pressure Medication
> MTGBPMed0<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1),
(mods=BPMed==0), data= MedDietStatins, method="REML")
>MTGBPMed0

> MCholBPMed0 <-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==2),
mods=(BPMed==0), data= MedDietStatins, method="REML")
> MCholBPMed0

> MLDLBPMed0<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==3),
mods=(BPMed==0), data= MedDietStatins, method="REML")
> MLDLBPMed0

> MHDLBPMed0<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==4),
mods=(BPMed==0), data= MedDietStatins, method="REML")
>MHDLBPMed0
```

```
# Reported Use of Other Medications
> MTGOMed<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1),
mods=OtherMed, data= MedDietStatins, method="REML")
> MTGOMed

#Total Cholesterol
> MCholOMed <-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==2), mods=
OtherMed, data= MedDietStatins, method="REML")
> MCholOMed

> MLDLOMed<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==3), mods=
OtherMed, data= MedDietStatins, method="REML")
> MLDLOMed

> MHDLOMed<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==4), mods=
OtherMed, data= MedDietStatins, method="REML")
> MHDLOMed

#No Other Medications
> MTGOMed0<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1),
mods=(OtherMed==0), data= MedDietStatins, method="REML")
> MTGOMed0

> MCholOMed0 <-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==2),
mods=(OtherMed==0), data= MedDietStatins, method="REML")
> MCholOMed0

> MLDLOMed0<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==3),
mods=(OtherMed==0), data= MedDietStatins, method="REML")
> MLDLOMed0

> MHDLOMed0<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==4),
mods=(OtherMed==0), data= MedDietStatins, method="REML")
> MHDLOMed0

# Diabetes Mellitus
> MTGDM<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1), mods=DM,
data= MedDietStatins, method="REML")
> MTGDM

> MCholDM <-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==2), mods=
DM, data= MedDietStatins, method="REML")
> MCholDM

> MLDLDM<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==3), mods= DM,
data= MedDietStatins, method="REML")
> MLDLDM

> MHDLDM<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==4), mods= DM,
data= MedDietStatins, method="REML")
> MHDLDM
```

```
# Intervention Sample Size
> MTGIntN<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1), mods=
n_post, data= MedDietStatins, method="REML")
> MTGIntN

> MCholIntN <-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==2), mods=
n_post, data= MedDietStatins, method="REML")
> MCholIntN

> MLDLIntN<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==3), mods=
n_post, data= MedDietStatins, method="REML")
> MLDLIntN

> MHDLIntN<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==4), mods=
n_post, data= MedDietStatins, method="REML")
> MHDLIntN

# Total Sample Size
> MTGN<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1), mods=Ntotal,
data= MedDietStatins, method="REML")
> MTGN

> MCholN <-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==2), mods=
Ntotal, data= MedDietStatins, method="REML")
> MCholN

> MLDLN<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==3), mods= Ntotal,
data= MedDietStatins, method="REML")
> MLDLN

> MHDLN<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==4), mods= Ntotal,
data= MedDietStatins, method="REML")
> MHDLN

# Participants Lost to Follow-Up
> MTGlost<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1),
mods=Part_lost, data= MedDietStatins, method="REML")
> MTGlost

> MChollost <-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==2), mods=
Part_lost, data= MedDietStatins, method="REML")
> MChollost

> MLDLDlost<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==3), mods=
Part_lost, data= MedDietStatins, method="REML")
> MLDLlost

# HDL-Cholesterol
> MHDLlost<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==4), mods=
Part_lost, data= MedDietStatins, method="REML")
```

```
> MHDLlost

# Non-Diet Control + 3 interventions
> MTGctrl3<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1),
mods=(Controlgrp==3), data= MedDietStatins, method="REML")
> MTGctrl3

> MCholctrl3 <-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==2),
mods=(Controlgrp==3), data= MedDietStatins, method="REML")
> MCholctrl3

> MLDLctrl3<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==3),
mods=(Controlgrp==3), data= MedDietStatins, method="REML")
> MLDLctrl3

> MHDLctrl3<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==4),
mods=(Controlgrp==3), data= MedDietStatins, method="REML")
> MHDLctrl3

# Non-Diet Control Group
> MTGctrl4<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1),
mods=(Controlgrp==4), data= MedDietStatins, method="REML")
> MTGctrl4

> MCholctrl4 <-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==2),
mods=(Controlgrp==4), data= MedDietStatins, method="REML")
> MCholctrl4

> MLDLDctrl4<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==3),
mods=(Controlgrp==4), data= MedDietStatins, method="REML")
> MLDLctrl4

> MHDLctrl4<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==4),
mods=(Controlgrp==4), data= MedDietStatins, method="REML")
> MHDLctrl4

# Experimental Conditions: Diet Control Plus 1 Intervention
> MTGexp<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1),
mods=(Experiment==4), data= MedDietStatins, method="REML")
> MTGexp

> MCholexp <-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==2),
mods=(Experiment==4), data= MedDietStatins, method="REML")
> MCholexp

> MLDLexp<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==3),
mods=(Experiment==4), data= MedDietStatins, method="REML")
> MLDLexp

> MHDLexp<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==4),
mods=(Experiment==4), data= MedDietStatins, method="REML")
```

```
> MHDLexp

# Experimental Conditions: Diet Control Plus 2 Interventions
# Triglycerides
> MTGexp2<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1),
mods=(Experiment==5), data= MedDietStatins, method="REML")
> MTGexp2

> MCholexp2 <-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==2),
mods=(Experiment==5), data= MedDietStatins, method="REML")
> MCholexp2

> MLDLexp2<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==3),
mods=(Experiment==5), data= MedDietStatins, method="REML")
> MLDLexp2

> MHDLexp2<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==4),
mods=(Experiment==5), data= MedDietStatins, method="REML")
> MHDLexp2

#Experimental Setting (Hospital)
> MTGset<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1),
mods=(exp_setting==1), data= MedDietStatins, method="REML")
> MTGset

> MCholset <-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==2),
mods=(exp_setting==1), data= MedDietStatins, method="REML")
> MCholset

> MLDLset<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==3),
mods=(exp_setting==1), data= MedDietStatins, method="REML")
> MLDLset

> MHDLset<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==4),
mods=(exp_setting==1), data= MedDietStatins, method="REML")
> MHDLset

# Experimental Setting (Clinic)
> MTGset2<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1),
mods=(exp_setting==2), data= MedDietStatins, method="REML")
> MTGset2

> MCholset2 <-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==2),
mods=(exp_setting==2), data= MedDietStatins, method="REML")
> MCholset2

> MLDLset2<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==3),
mods=(exp_setting==2), data= MedDietStatins, method="REML")
> MLDLset2
```

```
> MHDLset2<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==4),
mods=(exp_setting==2), data= MedDietStatins, method="REML")
> MHDLset2

# Diet Adherence Monitored
> MTGMonitor<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1),
mods=(Monitor==1), data= MedDietStatins, method="REML")
> MTGMonitor

> MCholMonitor <-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==2),
mods=(Monitor==1), data= MedDietStatins, method="REML")
> MCholMonitor

> MLDLMonitor<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==3),
mods=(Monitor==1), data= MedDietStatins, method="REML")
> MLDLMonitor

> MHDLMonitor<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==4),
mods=(Monitor==1), data= MedDietStatins, method="REML")
> MHDLMonitor

 #Weight Loss
> MTGwtloss<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1), mods=(
WtGainLoss ==1), data= MedDietStatins, method="REML")
> MTGwtloss

> MCholwtloss <-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==2), mods=(
WtGainLoss ==1), data= MedDietStatins, method="REML")
> MCholwtloss

> MLDLwtloss<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==3), mods=(
WtGainLoss ==1), data= MedDietStatins, method="REML")
> MLDLwtloss

> MHDLwtloss<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==4),
mods=(WtGainLoss==1), data= MedDietStatins, method="REML")
> MHDLwtloss

#Proportion of Subjects Using ACE Inhibitors
> MTGace<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1),
mods=ACEProp, data= MedDietStatins, method="REML")
> MTGace

> MCholace <-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==2),
mods=ACEProp, data= MedDietStatins, method="REML")
> MCholace

> MLDLace<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==3), mods=
ACEProp, data= MedDietStatins, method="REML")
> MLDLace
```

```
> MHDLace<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==4),
mods=(WtGainLoss==1), data= MedDietStatins, method="REML")
> MHDLace

#Number of Subjects Using ACE Inhibitors
> MTGaceno<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1),
mods=ACENo, data= MedDietStatins, method="REML")
> MTGaceno

> MCholaceno <-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==2),
mods=ACENo, data= MedDietStatins, method="REML")
> MCholaceno

> MLDLaceno <-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==3),
mods=ACENo, data= MedDietStatins, method="REML")
> MLDLaceno

> MHDLaceno<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==4),
mods=ACENo, data= MedDietStatins, method="REML")
> MHDLaceno

#Subjects Taking Aspirin
> MTGaspirin<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1),
mods=(Aspirin==1), data= MedDietStatins, method="REML")
> MTGaspirin

> MCholaspirin <-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==2),
mods=(Aspirin==1), data= MedDietStatins, method="REML")
> MCholaspirin

> MLDLaspirin <-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==3),
mods=(Aspirin==1), data= MedDietStatins, method="REML")
> MLDLaspirin

> MHDLaspirin<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==4),
mods=(Aspirin==1), data= MedDietStatins, method="REML")
> MHDLaspirin

#No Subjects Taking Aspirin
> MTGasp<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1),
mods=(Aspirin==0), data= MedDietStatins, method="REML")
> MTGasp

> MCholasp <-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==2),
mods=(Aspirin==0), data= MedDietStatins, method="REML")
> MCholasp

> MLDLasp<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==3),
mods=(Aspirin==0), data= MedDietStatins, method="REML")
> MLDLasp
```

```
> MHDLasp<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==4),
mods=(Aspirin==0), data= MedDietStatins, method="REML")
> MHDLasp

#Funding Source (Government)
> MTGfund<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1),
mods=(Funding==1), data= MedDietStatins, method="REML")
> MTGfund

> MCholfund <-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==2),
mods=(Funding==1), data= MedDietStatins, method="REML")
> MCholfund

> MLDLfund <-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==3),
mods=(Funding==1), data= MedDietStatins, method="REML")
> MLDLfund

> MHDLfund<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==4),
mods=(Funding==1), data= MedDietStatins, method="REML")
> MHDLfund

#Recruitment (Clinical/Hospital)
> MTGrecruit<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1),
mods=(Recruit==3), data= MedDietStatins, method="REML")
> MTGrecruit

> MCholrecruit <-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==2),
mods=(Recruit==3), data= MedDietStatins, method="REML")
> MCholrecruit

> MLDLrecruit <-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==3),
mods=(Recruit==3), data= MedDietStatins, method="REML")
> MLDLrecruit

> MHDLrecruit<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==4),
mods=(Recruit==3), data= MedDietStatins, method="REML")
> MHDLrecruit

#Number of Intervention Groups
> MTGIntgrp<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1),
mods=NoIntGrps, data= MedDietStatins, method="REML")
> MTGIntgrp

> MCholIntgrp <-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==2), mods=
NoIntGrps, data= MedDietStatins, method="REML")
> MCholIntgrp

> MLDLIntgrp <-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==3), mods=
NoIntGrps, data= MedDietStatins, method="REML")
> MLDLIntgrp
```

```
> MHDLIntgrp<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==4), mods=
NoIntGrps, data= MedDietStatins, method="REML")
> MHDLIntgrp

#Subjects Using Insulin or Oral Hypoglycemic Agents
> MTGinsulin<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1),
mods=Insulin/OHA, data= MedDietStatins, method="REML")
> MTGinsulin

> MCholinsulin <-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==2), mods=
Insulin/OHA, data= MedDietStatins, method="REML")
> MCholinsulin

> MLDLinsulin <-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==3),
mods=Insulin/OHA, data= MedDietStatins, method="REML")
> MLDLinsulin

> MHDLinsulin<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==4), mods=
Insulin/OHA, data= MedDietStatins, method="REML")
> MHDLinsulin

#No Subjects Using Insulin or Oral Hypoglycemic Agents
> MTGinsulin0<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1),
(mods=InsulinOHA==0), data= MedDietStatins, method="REML")
> MTGinsulin0

> MCholinsulin0 <-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==2), mods=
(InsulinOHA==0), data= MedDietStatins, method="REML")
> MCholinsulin0

> MLDLinsulin0 <-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==3),
mods=(InsulinOHA==0), data= MedDietStatins, method="REML")
> MLDLinsulin0

> MHDLinsulin0<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==4), mods=
(InsulinOHA==0), data= MedDietStatins, method="REML")
> MHDLinsulin0

#Alcohol Intake Recommended
> MTGETOH<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1),
mods=ETOH, data= MedDietStatins, method="REML")
> MTGETOH

> MCholETOH <-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==2), mods=
ETOH, data= MedDietStatins, method="REML")
> MCholETOH

> MLDLETOH <-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==3),
mods=ETOH, data= MedDietStatins, method="REML")
> MLDLETOH
```

```
> MHDLETOH<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==4), mods=
ETOH, data= MedDietStatins, method="REML")
> MHDLETOH

#Reported Macronutrient Distribution
> MTGmacro<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1),
mods=MacroDis, data= MedDietStatins, method="REML")
> MTGmacro

> MCholmacro <-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==2), mods=
MacroDis, data= MedDietStatins, method="REML")
> MCholmacro

> MLDLmacro <-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==3), mods=
MacroDis, data= MedDietStatins, method="REML")
> MLDLmacro

> MHDLmacro<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==4), mods=
MacroDis, data= MedDietStatins, method="REML")
> MHDLmacro

#Publication Year
> MTGyear<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1), mods= Year,
data= MedDietStatins, method="REML")
> MTGyear

> MCholyear <-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==2), mods=
Year, data= MedDietStatins, method="REML")
> MCholyear

> MLDLyear <-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==3), mods=
Year, data= MedDietStatins, method="REML")
> MLDLyear

> MHDLyear<-rma(d.ex.,var_d.ex.,subset=(Diet ==1 & Outcome==4), mods=
Year, data= MedDietStatins, method="REML")
> MHDLyear

#Proportion Taking Statins Min 7%, Max 100%, plus 0%, 10%, 25%, 50%, and
75%
> maxstatins = 1-MedDietStatins$Prop_Statins
> maxstatins

> minstatins=MedDietStatins$Prop_Statins - 0.07
> minstatins

> threefourthsstatin= MedDietStatins$Prop_Statins - 0.75
> threefourthsstatin

> halfonstatins= MedDietStatins$Prop_Statins - 0.5
> halfonstatins
```

```
> quarterstat = MedDietStatins$Prop_Statins - 0.25
> quarterstat

> tenstat= MedDietStatins$Prop_Statins - 0.1
> tenstat

> nostat = maxstatins - 1
> nostat

> MTGStat<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1),
mods=maxstatins, data=MedDietStatins, method="REML", slab=
paste(Reference, Prop_Statins, sep =","))
> MTGStat

> MTG75Stat<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1),
mods=threefourthsstatin, data=MedDietStatins, method="REML", slab=
paste(Author, Prop_Statins, sep =","))
> MTG75Stat

> MTG50Stat<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1),
mods=halfonstatins, data=MedDietStatins, method="REML", slab= paste(Author,
Prop_Statins, sep =","))
> MTG50Stat

> MTG25stat<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1),
mods=quarterstat, data=MedDietStatins, method="REML", slab= paste(Author,
Prop_Statins, sep =","))
> MTG25stat

> MTG10stat<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1),
mods=tenstat, data=MedDietStatins, method="REML", slab= paste(Author,
Prop_Statins, sep =","))
>MTG10stat

> TGminstat<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1),
mods=minstatins, data=MedDietStatins, method="REML", slab= paste(Author,
Prop_Statins, sep =","))
> TGminstat

> MTGNoStat<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1),
mods=nostat, data=MedDietStatins, method="REML", slab= paste(Reference,
Prop_Statins, sep =","))
> MTGNoStat

Maximum, 100% on Statins
> MTCholMaxStat<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==2),
mods=maxstatins, data=MedDietStatins, method="REML", slab=
paste(Reference, Prop_Statins, sep =","))
> MTCholMaxStat
```

```
> MTChol75Stat<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==2),
mods=threefourthsstatin, data=MedDietStatins, method="REML", slab=
paste(Reference, Prop_Statins, sep =","))
> MTChol75Stat

> MTChol50Stat<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==2),
mods=halfonstatins, data=MedDietStatins, method="REML", slab=
paste(Reference, Prop_Statins, sep =","))
> MTChol50Stat

> MTChol25stat<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==2),
mods=quarterstat, data=MedDietStatins, method="REML", slab=
paste(Reference, Prop_Statins, sep =","))
> MTChol25stat

> MTChol10stat<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==2),
mods=tenstat, data=MedDietStatins, method="REML", slab= paste(Reference,
Prop_Statins, sep =","))
> MTChol10stat

> MTCholMinStat<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==2),
mods=minstatins, data=MedDietStatins, method="REML", slab=
paste(Reference, Prop_Statins, sep =","))
> MTCholMinStat

> MTCholNoStat<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==2),
mods=nostat, data=MedDietStatins, method="REML", slab= paste(Reference,
Prop_Statins, sep =","))
> MTCholNoStat

> MLDLMaxStat<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==3),
mods=maxstatins, data=MedDietStatins, method="REML", slab=
paste(Reference, Prop_Statins, sep =","))
> MLDLMaxStat

> MLDL75Stat<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==3),
mods=threefourthsstatin, data=MedDietStatins, method="REML", slab=
paste(Reference, Prop_Statins, sep =","))
> MLDL75Stat

> MLDL50Stat<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==3),
mods=halfonstatins, data=MedDietStatins, method="REML", slab=
paste(Reference, Prop_Statins, sep =","))
> MLDL50Stat

> MLDL25stat<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==3),
mods=quarterstat, data=MedDietStatins, method="REML", slab=
paste(Reference, Prop_Statins, sep =","))
> MLDL25stat
```

```
> MLDL10stat<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==3),
mods=tenstat, data=MedDietStatins, method="REML", slab= paste(Reference,
Prop_Statins, sep =","))
> MLDL10stat

> MLDLMinStat<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==3),
mods=minstatins, data=MedDietStatins, method="REML", slab=
paste(Reference, Prop_Statins, sep =","))
> MLDLMinStat

> MLDLNoStat<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==3),
mods=nostat, data=MedDietStatins, method="REML", slab= paste(Reference,
Prop_Statins, sep =","))
> MLDLNoStat

> MHDLMaxStat<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==4),
mods=maxstatins, data=MedDietStatins, method="REML", slab=
paste(Reference, Prop_Statins, sep =","))
> MHDLMaxStat

> MHDL75Stat<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==4),
mods=threefourthsstatin, data=MedDietStatins, method="REML", slab=
paste(Reference, Prop_Statins, sep =","))
> MHDL75Stat

> MHDL50Stat<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==4),
mods=halfonstatins, data=MedDietStatins, method="REML", slab=
paste(Reference, Prop_Statins, sep =","))
> MHDL50Stat

> MHDL25stat<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==4),
mods=quarterstat, data=MedDietStatins, method="REML", slab=
paste(Reference, Prop_Statins, sep =","))
> MHDL25stat

> MHDL10stat<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==4),
mods=tenstat, data=MedDietStatins, method="REML", slab= paste(Reference,
Prop_Statins, sep =","))
> HDL10stat

> MHDLMinStat<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==4),
mods=minstatins, data=MedDietStatins, method="REML", slab=
paste(Reference, Prop_Statins, sep =","))
> MHDLMinStat

> MHDLNoStat<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==4),
mods=nostat, data=MedDietStatins, method="REML", slab= paste(Reference,
Prop_Statins, sep =","))
> HDLNoStat

# Min Max for Hypertension
```

```
> maxHTN = 0.94-MedDietStatins$HTN
> maxHTN

> minHTN=MedDietStatins$HTN - 0.39
> minHTN

> MTGHTNmax<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1),
mods=maxHTN, data=MedDietStatins, method="REML", slab= paste(Reference,
HTN, sep =","))
> MTGHTNmax

> MTGHTNmin<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1),
mods=minHTN, data=MedDietStatins, method="REML", slab= paste(Reference,
HTN, sep =","))
> MTGHTNmin

> MTCholHTNmax<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==2),
mods=maxHTN, data=MedDietStatins, method="REML", slab= paste(Reference,
HTN, sep =","))
> MTCholHTNmax

> MTCholHTNmin<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==2),
mods=minHTN, data=MedDietStatins, method="REML", slab= paste(Reference,
HTN, sep =","))
> MTCholHTNmin

> MLDLHTNmax<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==3),
mods=maxHTN, data=MedDietStatins, method="REML", slab= paste(Reference,
HTN, sep =","))
> MLDLHTNmax

> MLDLHTNmin<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==3),
mods=minHTN, data=MedDietStatins, method="REML", slab= paste(Reference,
HTN, sep =","))
> MLDLHTNmin

> MHDLHTNmax<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==4),
mods=maxHTN, data=MedDietStatins, method="REML", slab= paste(Reference,
HTN, sep =","))
> MHDLHTNmax

> MHDLHTNmin<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==4),
mods=minHTN, data=MedDietStatins, method="REML", slab= paste(Reference,
HTN, sep =","))
> MHDLHTNmin

# Min Max for Proportion of Females
maxFemales = 0.60 -MedDietStatins$Female
> maxFemales

> minFemale = MedDietStatins$Female - 0.0
```

```
> minFemale

> MTGFemmax<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1),
mods=maxFemales, data=MedDietStatins, method="REML", slab=
paste(Reference, Female, sep =","))
> MTGFemmax

> MTGFemmin<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1),
mods=minFemale, data=MedDietStatins, method="REML", slab=
paste(Reference, Prop_Statins, sep =","))
> MTGFemmin

> MCholFemmax<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==2), mods=
maxFemales, data=MedDietStatins, method="REML", slab= paste(Reference,
Female, sep =","))
> MCholHTNmax

> MTCholFemmin<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==2),
mods=minFemale, data=MedDietStatins, method="REML", slab=
paste(Reference, Female, sep =","))
> MTCholFemmin

> MLDLFemmax<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==3), mods=
maxFemales, data=MedDietStatins, method="REML", slab= paste(Reference,
Female, sep =","))
>MLDLFemmax

> MLDLFemmin<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==3),
mods=minFemale, data=MedDietStatins, method="REML", slab=
paste(Reference, Female, sep =","))
> MLDLFemmin

> HDLFemmax<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==4), mods=
maxFemales, data=MedDietStatins, method="REML", slab= paste(Reference,
Female, sep =","))
> HDLFemmax

> MHDLFemmin<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==4),
mods=minFemale, data=MedDietStatins, method="REML", slab=
paste(Reference, Female, sep =","))
> MHDLFemmin

#Min Max for Dyslipidemia
> maxDys = 0.72-MedDietStatins$Dys
> maxDys

> minDys=MedDietStatins$Dys - 0.327
> minDysS
```

```
> MTGDysmax<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1),
mods=maxDys, data=MedDietStatins, method="REML", slab= paste(Reference,
Dys, sep =","))
> MTGDysmax

> MTGDysmin<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1),
mods=minDys, data=MedDietStatins, method="REML", slab= paste(Reference,
Dys, sep =","))
> MTGDysmin

> MCholDysmax<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==2), mods=
maxDys, data=MedDietStatins, method="REML", slab= paste(Reference, Dys,
sep =","))
> MCholDysmax

> MTCholDysmin<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==2),
mods=minDys, data=MedDietStatins, method="REML", slab= paste(Reference,
Dys, sep =","))
> MTCholDysmin

> MLDLDysmax<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==3), mods=
maxDys, data=MedDietStatins, method="REML", slab= paste(Reference, Dys,
sep =","))
> MLDLDysmax

> MLDLDysmin<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==3),
mods=minDys, data=MedDietStatins, method="REML", slab= paste(Reference,
Dys, sep =","))
> MLDLDysmin

> MHDLDysmax<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==4), mods=
maxDys, data=MedDietStatins, method="REML", slab= paste(Reference, Dys,
sep =","))
> MHDLDysmax

> MHDLDysmin<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==4),
mods=minDys, data=MedDietStatins, method="REML", slab= paste(Reference,
Dys, sep =","))
> MHDLDysmin

# Min Max for Length of Intervention
> maxWeeks = 260-MedDietStatins$Weeks
> maxWeeks

> minWeeks=MedDietStatins$Weeks - 8
> minWeeks

> MTGWksmax<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1),
mods=maxWeeks, data=MedDietStatins, method="REML", slab=
paste(Reference, Weeks, sep =","))
> MTGWksmax
```

```
> MTGWksmin<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1),
mods=minWeeks, data=MedDietStatins, method="REML", slab=
paste(Reference, Weeks, sep =","))
> MTGWksmin

> MCholWksmax<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==2), mods=
maxWeeks, data=MedDietStatins, method="REML", slab= paste(Reference,
Weeks, sep =","))
> MCholWksmax

> MCholWksmin<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==2),
mods=minWeeks, data=MedDietStatins, method="REML", slab=
paste(Reference, Weeks, sep =","))
> MCholWksmin

> MLDLWksmax<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==3), mods=
maxWeeks, data=MedDietStatins, method="REML", slab= paste(Reference,
Weeks, sep =","))
> MLDLWksmax

> MLDLWksmin<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==3),
mods=minWeeks, data=MedDietStatins, method="REML", slab=
paste(Reference, Weeks, sep =","))
> MLDLWksmin

> MHDLWksmax<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==4), mods=
maxWeeks, data=MedDietStatins, method="REML", slab= paste(Reference,
Weeks, sep =","))
> MHDLWksmax

> HDLWeeksmin<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==4),
mods=minWeeks, data=MedDietStatins, method="REML", slab=
paste(Reference, Weeks, sep =","))
> HDLWeeksmin

# Min Max for Current Smokers
> maxSmoke = 0.51-MedDietStatins$Smoke
> maxSmoke

> minSmoke=MedDietStatins$Smoke - 0
> minSmoke

> MTGSmokemax<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1),
mods=maxSmoke, data=MedDietStatins, method="REML", slab=
paste(Reference, Smoke, sep =","))
> MTGSmokemax

> MTGSmokemin<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1),
mods=minSmoke, data=MedDietStatins, method="REML", slab=
paste(Reference, Smoke, sep =","))
```

```
> MTGSmokemin

> MCholSmokemax<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==2),
mods=maxSmoke, data=MedDietStatins, method="REML", slab=
paste(Reference, Smoke, sep =","))
> MCholSmokemax

> MCholSmokemin<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==2),
mods=minSmoke, data=MedDietStatins, method="REML", slab=
paste(Reference, Smoke, sep =","))
> MCholSmokemin

> MLDLSmokemax<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==3),
mods= maxSmoke, data=MedDietStatins, method="REML", slab=
paste(Reference, Smoke, sep =","))
> MLDLSmokemax

> MLDLSmokemin<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==3),
mods=minSmoke, data=MedDietStatins, method="REML", slab=
paste(Reference, Smoke, sep =","))
> MLDLSmokemin

> MHDLSmokemax<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==4),
mods= maxSmoke, data=MedDietStatins, method="REML", slab=
paste(Reference, Smoke, sep =","))
> MHDLSmokemax

> MHDLSmokemin<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==4),
mods=minSmoke, data=MedDietStatins, method="REML", slab=
paste(Reference, Smoke, sep =","))
> MHDLSmokemin

#Min Max for Methodological Quality Score
> maxMQ = 17 -MedDietStatins$MQ
> maxMQ

> minMQ=MedDietStatins$MQ - 8
> minMQ

> MTGMQmax<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1),
mods=maxMQ, data=MedDietStatins, method="REML", slab= paste(Reference,
MQ, sep =","))
> MTGMQmax

> MTGMQmin<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1),
mods=minMQ, data=MedDietStatins, method="REML", slab= paste(Reference,
MQ, sep =","))
> MTGMQmin
```

```
> MCholMQmax<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==2),
mods=maxMQ, data=MedDietStatins, method="REML", slab= paste(Reference,
MQ, sep =","))
> MCholMQmax

> MCholMQmin<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==2),
mods=minMQ, data=MedDietStatins, method="REML", slab= paste(Reference,
MQ, sep =","))
> MCholMQmin

> MLDLMQmax<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==3), mods=
maxMQ, data=MedDietStatins, method="REML", slab= paste(Reference, MQ,
sep =","))
> MLDLMQmax

> MLDLMQmin<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==3),
mods=minMQ, data=MedDietStatins, method="REML", slab= paste(Reference,
MQ, sep =","))
> MLDLMQmin

> MHDLMQmax<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==4), mods=
maxMQ, data=MedDietStatins, method="REML", slab= paste(Reference, MQ,
sep =","))
> MHDLMQmax

> MHDLMQmin<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==4),
mods=minMQ, data=MedDietStatins, method="REML", slab= paste(Reference,
MQ, sep =","))
> MHDLMQmin

# Min Max for Number of Follow-Ups
> maxfu = 10 -MedDietStatins$NoFollowUp
> maxfu

> minfu=MedDietStatins$NoFollowUp - 1
> minfu

> MTGfumax<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1),
mods=maxfu, data=MedDietStatins, method="REML", slab= paste(Reference,
NoFollowUp, sep =","))
> MTGfumax

> MTGfumin<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1),
mods=minfu, data=MedDietStatins, method="REML", slab= paste(Reference,
NoFollowUp, sep =","))
> MTGfumin

> MCholfumax<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==2),
mods=maxfu, data=MedDietStatins, method="REML", slab= paste(Reference,
NoFollowUp, sep =","))
> MCholfumax
```

```
> MCholfumin<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==2),
mods=minfu, data=MedDietStatins, method="REML", slab= paste(Reference,
NoFollowUp, sep =","))
> MCholfumin

> MLDLfumax<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==3),
mods=maxfu, data=MedDietStatins, method="REML", slab= paste(Reference,
NoFollowUp, sep =","))
> MLDLfumax

> MLDLfumin<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==3),
mods=minfu, data=MedDietStatins, method="REML", slab= paste(Reference,
NoFollowUp, sep =","))
> MLDLfumin

> MHDLfumax<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==4),
mods=maxfu, data=MedDietStatins, method="REML", slab= paste(Reference,
NoFollowUp, sep =","))
> MHDLfumax

> MHDLfumin<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==4),
mods=minfu, data=MedDietStatins, method="REML", slab= paste(Reference,
NoFollowUp, sep =","))
> MHDLfumin

# Min Max for Participants Lost to Follow-Up
> maxlost = 14 -MedDietStatins$Part_lost
> maxlost

> minlost=MedDietStatins$ Part_lost - 0
> minlost

> MTGlostmax<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1),
mods=maxlost, data=MedDietStatins, method="REML", slab= paste(Reference,
Part_lost, sep =","))
> MTGlostmax

> MTGlostmin<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1),
mods=minlost, data=MedDietStatins, method="REML", slab= paste(Reference,
Part_lost, sep =","))
> MTGlostmin

> MChollostmax<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==2),
mods=maxlost, data=MedDietStatins, method="REML", slab= paste(Reference,
Part_lost, sep =","))
> MChollostmax

> MChollostmin<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==2),
mods=minlost, data=MedDietStatins, method="REML", slab= paste(Reference,
Part_lost, sep =","))
```

```
> MChollostmin

> MLDLlostmax<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==3),
mods=maxlost, data=MedDietStatins, method="REML", slab= paste(Reference,
Part_lost, sep =","))
> MLDLlostmax

> MLDLlostmin<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==3),
mods=minlost, data=MedDietStatins, method="REML", slab= paste(Reference,
Part_lost, sep =","))
> MLDLlostmin

> MHDLlostmax<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==4),
mods=maxlost, data=MedDietStatins, method="REML", slab= paste(Reference,
Part_lost, sep =","))
> MHDLlostmax

> MHDLlostmin<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==4),
mods=minlost, data=MedDietStatins, method="REML", slab= paste(Reference,
Part_lost, sep =","))
> MHDLlostmin
```

Meta-Regressions Plots

```
#Length of intervention
MTGwks<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1), mods=Weeks,
data=MedDietStatins, method="REML", slab= paste(Author, Weeks, sep =","))
MTGwkspred <- predict(MTGwks, newmods=cbind(seq(0, 260,.1)))
wi = MedDietStatins$w_d.ex.
min= min(wi,na.rm=TRUE)
max= max(wi,na.rm=TRUE)
size= 1.0 + 0.5 * (wi - min)/(max - min)
dietTG= subset(MedDietStatins, Diet==1 & Outcome==1)
plot(dietTG$Weeks,dietTG$d.ex.,pch= 20, col="black", bg = "black", cex=size,
xlab = "Number of Weeks",
ylab = "Triglycerides Effect Size (d)", xlim=c(0,260), ylim=c(-2, 0.5))
lines(seq(0,260,.1), MTGwkspred$pred, col = "dark red")
lines(seq(0,260,.1), MTGwkspred$ci.lb, lty = "dashed", col="dark red")
lines(seq(0,260,.1), MTGwkspred$ci.ub, lty = "dashed", col="dark red")
MTGwks<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1), mods = Weeks,
data=MedDietStatins, method="REML", slab= paste(Author, Year, sep =","))
MTGwkspred <- predict(MTGwks, newmods=cbind(seq(0,260,.1)))
MTGwks

MCholwks<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==2),
mods=Weeks,
data=MedDietStatins, method="REML", slab= paste(Author, Weeks, sep =","))
MCholwkspred <- predict(MCholwks, newmods=cbind(seq(0,260,.1)))
wi = MedDietStatins$w_d.ex.
min= min(wi,na.rm=TRUE)
max= max(wi,na.rm=TRUE)
```

```
size= 1.0 + 0.5 * (wi - min)/(max - min)
dietTChol= subset(MedDietStatins,Diet==1 & Outcome==2)
plot(dietTChol$Weeks,dietTChol$d.ex.,pch= 20, col="black", bg = "black",
cex=size,
xlab = "Number of Weeks", #Plotting here the observed values of the subsample
ylab = "Total Cholesterol Effect Size (d)", xlim=c(0, 260), ylim=c(-2, 0.5))
lines(seq(0,260,.1), MCholwkspred$pred, col = "dark red")
lines(seq(0,260,.1), MCholwkspred$ci.lb, lty = "dashed", col="dark red")
lines(seq(0,260,.1), MCholwkspred$ci.ub, lty = "dashed", col="dark red")
MCholwks<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==2), mods =
Weeks,
data=MedDietStatins, method="REML", slab= paste(Author, Year, sep =","))
MCholwkspred <- predict(MCholwks, newmods=cbind(seq(0,260,.1)))
MCholwks

MLDLwks<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==3), mods=Weeks,
data=MedDietStatins, method="REML", slab= paste(Author, Weeks, sep =","))
MLDLwkspred <- predict(MLDLwks, newmods=cbind(seq(0,260,.1)))
wi = MedDietStatins$w_d.ex.
min= min(wi,na.rm=TRUE)
max= max(wi,na.rm=TRUE)
size= 1.0 + 0.5 * (wi - min)/(max - min)
dietLDL= subset(MedDietStatins,Diet==1 & Outcome==3)
plot(dietLDL$Weeks,dietLDL$d.ex.,pch= 20, col="black", bg = "black", cex=size,
xlab = "Number of Weeks", #Plotting here the observed values of the subsample
ylab = "LDL Cholesterol Effect Size (d)", xlim=c(0, 260), ylim=c(-2, 0.5))
lines(seq(0,260,.1), MLDLwkspred$pred, col = "dark red")
lines(seq(0,260,.1), MLDLwkspred$ci.lb, lty = "dashed", col="dark red")
lines(seq(0,260,.1), MLDLwkspred$ci.ub, lty = "dashed", col="dark red")
MLDLwks<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==3), mods =
Weeks, data=MedDietStatins, method="REML", slab= paste(Author, Year, sep
=","))
MLDLwkspred <- predict(MLDLwks, newmods=cbind(seq(0,260,.1)))
MLDLwks

#Dyslipidemia
MHDLDys<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==4), mods=Dys,
data=MedDietStatins, method="REML", slab= paste(Author, Dys, sep =","))
MHDLDyspred <- predict(MHDLDys, newmods=cbind(seq(0,1.0,.1)))
wi = MedDietStatins$w_d.ex.
min= min(wi,na.rm=TRUE)
max= max(wi,na.rm=TRUE)
size= 1.0 + 0.5 * (wi - min)/(max - min)
dietHDL= subset(MedDietStatins,Diet==1 & Outcome==4)
plot(dietHDL$Dys,dietHDL$d.ex.,pch= 20, col="black", bg = "black", cex=size,
xlab = "Proportion of Dyslipidemia",
ylab = "HDL Cholesterol Effect Size (d)", xlim=c(0, 1.0), ylim=c(-1, 1.5))
lines(seq(0,1.0,.1), MHDLDyspred$pred, col = "dark red")
lines(seq(0,1.0,.1), MHDLDyspred$ci.lb, lty = "dashed", col="dark red")
lines(seq(0,1.0,.1), MHDLDyspred$ci.ub, lty = "dashed", col="dark red")
MHDLDys<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==4), mods = Dys,
```

```
data=MedDietStatins, method="REML", slab= paste(Author, Year, sep =","))
MHDLDyspred <- predict(MHDLDys, newmods=cbind(seq(0,1.0,.1)))
MHDLDys

#Number of follow-ups
MTGNofu<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1),
mods=NoFollowUp,
data=MedDietStatins, method="REML", slab= paste(Author, NoFollowUp, sep
=","))
MTGNofupred <- predict(MTGNofu, newmods=cbind(seq(0,8.0,1)))
wi = MedDietStatins$w_d.ex.
min= min(wi,na.rm=TRUE)
max= max(wi,na.rm=TRUE)
size= 1.0 + 0.5 * (wi - min)/(max - min)
dietTG= subset(MedDietStatins,Diet==1 & Outcome==1)
plot(dietTG$NoFollowUp,dietTG$d.ex.,pch= 20, col="black", bg = "black",
cex=size,
xlab = "Number of Follow-Up Sessions",
ylab = "Triglycerides Effect Size (d)", xlim=c(0, 8.0), ylim=c(-3, 0.5))
lines(seq(0,8.00,1), MTGNofupred$pred, col = "dark red")
lines(seq(0,8.00,1), MTGNofupred$ci.lb, lty = "dashed", col="dark red")
lines(seq(0,8.00,1), MTGNofupred$ci.ub, lty = "dashed", col="dark red")
MTGNofu<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1), mods =
NoFollowUp,
data=MedDietStatins, method="REML", slab= paste(Author, NoFollowUp, sep
=","))
MTGpred <- predict(MTGNofu, newmods=cbind(seq(0,8.00,1)))
MTGNofu

#Number of Subjects Lost to Follow-up
MTGlost<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1),
mods=Part_lost,
data=MedDietStatins, method="REML", slab= paste(Author, Part_lost, sep =","))
MTGlostpred <- predict(MTGlost, newmods=cbind(seq(0,14,0.1)))
wi = MedDietStatins$w_d.ex.
min= min(wi,na.rm=TRUE)
max= max(wi,na.rm=TRUE)
size= 1.0 + 0.5 * (wi - min)/(max - min)
dietTG= subset(MedDietStatins,Diet==1 & Outcome==1)
plot(dietTG$Part_lost,dietTG$d.ex.,pch= 20, col="black", bg = "black", cex=size,
xlab = "Number of Subjects Lost to Follow-Up",
ylab = "Triglycerides Effect Size (d)", xlim=c(0, 15.0), ylim=c(-2, 0.5))
lines(seq(0,14.0,.1), MTGlostpred$pred, col = "dark red")
lines(seq(0,14.0,.1), MTGlostpred$ci.lb, lty = "dashed", col="dark red")
lines(seq(0,14.0,.1), MTGlostpred$ci.ub, lty = "dashed", col="dark red")
MTGlost<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==1), mods =
Part_lost,
data=MedDietStatins, method="REML", slab= paste(Author, Part_lost, sep =","))
MTGpred <- predict(MTGlost, newmods=cbind(seq(0,14.0,0.1)))
MTGlost
```

Appendix 7: R Code for Low-Fat Diet

Random-Effect and Fixed-Effect Sizes

```
#Low Fat Diet without Statins
> model01<-rma(d.ex.,var_d.ex.,subset=(Diet==4&Outcome==1),
data=LFDalone, method="FE", slab= paste(Author, Year, sep =", "))
> model01

> model02<-rma(d.ex.,var_d.ex.,subset=(Diet==4&Outcome==1),
data=LFDalone, method="REML", slab= paste(Author, Year, sep =", "))
> model02

> model03<-rma(d.ex.,var_d.ex.,subset=(Diet==4&Outcome==2),
data=LFDalone, method="FE", slab= paste(Author, Year, sep =", "))
> model03

> model04<-rma(d.ex.,var_d.ex.,subset=(Diet==4&Outcome==2),
data=LFDalone, method="REML", slab= paste(Author, Year, sep =", "))
> model04

> model05<-rma(d.ex.,var_d.ex.,subset=(Diet==4&Outcome==3),
data=LFDalone, method="FE", slab= paste(Author, Year, sep =", "))
> model05

> model06<-rma(d.ex.,var_d.ex.,subset=(Diet==4&Outcome==3),
data=LFDalone, method="REML", slab= paste(Author, Year, sep =", "))
> model06

> model07<-rma(d.ex.,var_d.ex.,subset=(Diet==4&Outcome==4),
data=LFDalone, method="FE", slab= paste(Author, Year, sep =", "))
> model07

> model08<-rma(d.ex.,var_d.ex.,subset=(Diet ==4&Outcome==4),
data=LFDalone, method="REML", slab= paste(Author, Year, sep =", "))
> model08

#Low Fat Diet with Statins
> model13<-rma(d.ex.,var_d.ex.,subset=(Diet==5&Outcome==1),
data=LFDietStatins, method="FE")
> model13

> model14<-rma(d.ex.,var_d.ex.,subset=(Diet==5&Outcome==1),
data=LFDietStatins, method="REML")
> model14

> model15<-rma(d.ex.,var_d.ex.,subset=(Diet==5&Outcome==2),
data=LFDietStatins, method="FE")
> model15
```

```
> model16<-rma(d.ex.,var_d.ex.,subset=(Diet==5&Outcome==2),
data=LFDietStatins, method="REML")
> model16

> model17<-rma(d.ex.,var_d.ex.,subset=(Diet==5&Outcome==3),
data=LFDietStatins, method="FE")
> model17

> model18<-rma(d.ex.,var_d.ex.,subset=(Diet==5&Outcome==3),
data=LFDietStatins, method="REML")
> model18

> model19<-rma(d.ex.,var_d.ex.,subset=(Diet==5&Outcome==4),
data=LFDietStatins, method="FE")
> model19

> model20<-rma(d.ex.,var_d.ex.,subset=(Diet ==5&Outcome==4),
data=LFDietStatins, method="REML")
> model20

> model01<-rma(d.ex.,var_d.ex.,subset=(Diet==4&Outcome==1),
data=LFDalone, method="FE", slab= paste(Author, Year, sep =", "))
> model01

> model02<-rma(d.ex.,var_d.ex.,subset=(Diet==4&Outcome==1),
data=LFDalone, method="REML", slab= paste(Author, Year, sep =", "))
> model02

> model03<-rma(d.ex.,var_d.ex.,subset=(Diet==4&Outcome==2),
data=LFDalone, method="FE", slab= paste(Author, Year, sep =", "))
> model03

> model04<-rma(d.ex.,var_d.ex.,subset=(Diet==4&Outcome==2),
data=LFDalone, method="REML", slab= paste(Author, Year, sep =", "))
> model04

> model05<-rma(d.ex.,var_d.ex.,subset=(Diet==4&Outcome==3),
data=LFDalone, method="FE", slab= paste(Author, Year, sep =", "))
> model05

> model06<-rma(d.ex.,var_d.ex.,subset=(Diet==4&Outcome==3),
data=LFDalone, method="REML", slab= paste(Author, Year, sep =", "))
> model06

> model07<-rma(d.ex.,var_d.ex.,subset=(Diet==4&Outcome==4),
data=LFDalone, method="FE", slab= paste(Author, Year, sep =", "))
> model07

> model08<-rma(d.ex.,var_d.ex.,subset=(Diet ==4&Outcome==4),
data=LFDalone, method="REML", slab= paste(Author, Year, sep =", "))
> model08
```

Forest Plots

```
forest(model02, xlim=c(-10,10), xlab="Standardized Mean Difference", cex=0.8,
efac=2, col="dark red", border="black")
op<-par(cex=1.00, font=2, col="black")
op<-par(cex=0.85, font=2, col="dark red")
text (0,19, "Triglycerides")
text(c(-3,2.5),17.5,c("Favors Intervention", "Favors Baseline"))
text(-10,17.5, "Author(s) and Year", pos=4)
text(7.5,17.5, "d[95%CI]", pos=4)
par(op)


forest(model04, xlim=c(-10,10), xlab="Standardized Mean Difference", cex=0.8,
efac=2, col="dark red", border="black")
op<-par(cex=1.00, font=2, col="black")
op<-par(cex=0.85, font=2, col="dark red")
text (0,20, "Total Cholesterol")
text(c(-3.5,3.5),18.5,c("Favors Intervention", "Favors Baseline"))
text(-10,18.5, "Author(s) and Year", pos=4)
text(8,18.5, "d[95%CI]", pos=4)
par(op)

forest(model06, xlim=c(-10,10), xlab="Standardized Mean Difference", cex=0.8,
efac=2, col="dark red", border="black")
op<-par(cex=1.00, font=2, col="black")
op<-par(cex=0.85, font=2, col="dark red")
text (0,20, "LDL Cholesterol")
text(c(-3.5,3.5),18.5,c("Favors Intervention", "Favors Baseline"))
text(-10,18.5, "Author(s) and Year", pos=4)
text(8,18.5, "d[95%CI]", pos=4)
par(op)

forest(model08, xlim=c(-10,10), xlab="Standardized Mean Difference", cex=0.8,
efac=2, col="dark red", border="black")
op<-par(cex=1.00, font=2, col="black")
op<-par(cex=0.85, font=2, col="dark red")
text (0,22, "HDL Cholesterol")
text(c(-3.5,3.5),20.5,c("Favors Baseline", "Favors Intervention"))
text(-10,20.5, "Author(s) and Year", pos=4)
text(8,20.5, "d[95%CI]", pos=4)
par(op)

forest(model14, xlim=c(-8,8), xlab="Standardized Mean Difference", cex=0.8,
efac=2, col="dark red", border="black")
op<-par(cex=1.00, font=2, col="black”)
op<-par(cex=0.85, font=2, col="dark red")
text (0,30, "Triglycerides")
text(c(-3,2.5),29,c("Favors Intervention", "Favors Baseline"))
text(-8,29, "Author(s) and Year", pos=4)
```

```
text(6.25,29, "d[95%CI]", pos=4)
par(op)

forest(model16, xlim=c(-10,10), xlab="Standardized Mean Difference", cex=0.8,
efac=2, col="dark red", border="black")
op<-par(cex=1.00, font=2, col="black")
op<-par(cex=0.85, font=2, col="dark red")
text (0,40, "Total Cholesterol")
text(c(-4,3.5),39,c("Favors Intervention", "Favors Baseline"))
text(-10,39, "Author(s) and Year", pos=4)
text(8,39, "d[95%CI]", pos=4)
par(op)

forest(model18, xlim=c(-10,10), xlab="Standardized Mean Difference", cex=0.8,
efac=2, col="dark red", border="black")
op<-par(cex=1.00, font=2, col="black")
op<-par(cex=0.85, font=2, col="dark red")
text (0,39, "LDL Cholesterol")
text(c(-4,3.5),38,c("Favors Intervention", "Favors Baseline"))
text(-10,38, "Author(s) and Year", pos=4)
text(8,38, "d[95%CI]", pos=4)
par(op)

forest(model20, xlim=c(-10,10), xlab="Standardized Mean Difference", cex=0.8,
efac=2, col="dark red", border="black")
op<-par(cex=1.00, font=2, col="black")
op<-par(cex=0.85, font=2, col="dark red")
text (0,39, "HDL Cholesterol")
text(c(-4,3.5),38,c("Favors Baseline", "Favors Intervention"))
text(-10,38, "Author(s) and Year", pos=4)
text(8,38, "d[95%CI]", pos=4)
par(op)
```

Publication Bias

```
#Egger's
> regtest(model13, model="lm", data=LFDietStatins)

> regtest(model15, model="lm", data= LFDietStatins)

> regtest(model17, model="lm", data= LFDietStatins)

> regtest(model19, model="lm", data= LFDietStatins)

> regtest(model01, model="lm", data=LFDalone)

> regtest(model03, model="lm", data= LFDalone)

> regtest(model05, model="lm", data= LFDalone)

> regtest(model07, model="lm", data= LFDalone)
```

#Begg's
> ranktest(model13, data= LFDietStatins)

> ranktest(model15, data= LFDietStatins)

> ranktest(model17, data= LFDietStatins)

> ranktest(model19, data= LFDietStatins)

> ranktest(model01, data= LFDalone)

> ranktest(model03, data= LFDalone)

> ranktest(model05, data= LFDalone)

> ranktest(model07, data= LFDalone)

#Trim-and-Fill with Funnel Plots
>LFTGtrim=trimfill(model13, data= LFDietStatins)
>funnel(LFTGtrim)

>LFTCtrim=trimfill(model15, data= LFDietStatins)
>funnel(LFTCtrim)

>LFLDLtrim=trimfill(model17, data= LFDietStatins)
>funnel(LFLDLtrim)

>LFHDLtrim=trimfill(model19, data= LFDietStatins)
>funnel(LFHDLtrim)

>LFTGtrim=trimfill(model01, data= LFDalone)
>funnel(LFTGtrim)

>LFTCtrim=trimfill(model03, data= LFDalone)
>funnel(LFTCtrim)

>LFLDLtrim=trimfill(model05, data= LFDalone)
>funnel(LFLDLtrim)

>LFHDLtrim=trimfill(model07, data= LFDalone)
>funnel(LFHDLtrim)

Risk of Bias

RanSeq-1
> LTGbias <-rma(d.ex.,var_d.ex., subset=(Diet==5 & Outcome==1), mods=~factor(RanSeq)-1, data=LQuality, method="REML")
> Summary(LTGbias)

```
>LCholbias<-rma(d.ex.,var_d.ex., subset=(Diet==5 & Outcome==2),
mods=~factor(RanSeq)-1, data= LQuality, method="REML")
> Summary(LCholbias)

>LLDLbias<-rma(d.ex.,var_d.ex., subset=(Diet==5 & Outcome==3),
mods=~factor(RanSeq)-1, data= LQuality, method="REML")
> Summary(LLDLbias)

>LHDLbias<-rma(d.ex.,var_d.ex., subset=(Diet==5 & Outcome==4),
mods=~factor(RanSeq)-1, data= LQuality, method="REML")
> Summary(LHDLbias)
```

RanSeq

```
> LTGbias <-rma(d.ex.,var_d.ex., subset=(Diet==5 & Outcome==1),
mods=~factor(RanSeq), data= LQuality, method="REML")
> Summary(LTGbias)

>LCholbias<-rma(d.ex.,var_d.ex., subset=(Diet==5 & Outcome==2),
mods=~factor(RanSeq), data= LQuality, method="REML")
> Summary(LCholbias)

>LLDLbias<-rma(d.ex.,var_d.ex., subset=(Diet==5 & Outcome==3),
mods=~factor(RanSeq), data= LQuality, method="REML")
> Summary(LLDLbias)

>LHDLbias<-rma(d.ex.,var_d.ex., subset=(Diet==5 & Outcome==4),
mods=~factor(RanSeq), data= LQuality, method="REML")
> Summary(LHDLbias)
```

AllCon-1

```
> LTGbias <-rma(d.ex.,var_d.ex., subset=(Diet==5 & Outcome==1),
mods=~factor(AllCon)-1, data= LQuality, method="REML")
> Summary(LTGbias)

>LCholbias<-rma(d.ex.,var_d.ex., subset=(Diet==5 & Outcome==2),
mods=~factor(AllCon)-1, data= LQuality, method="REML")
> Summary(LCholbias)

>LLDLbias<-rma(d.ex.,var_d.ex., subset=(Diet==5 & Outcome==3),
mods=~factor(AllCon)-1, data= LQuality, method="REML")
> Summary(LLDLbias)

>LHDLbias<-rma(d.ex.,var_d.ex., subset=(Diet==5 & Outcome==4),
mods=~factor(AllCon)-1, data= LQuality, method="REML")
> Summary(LHDLbias)
```

AllCon

```
> LTGbias <-rma(d.ex.,var_d.ex., subset=(Diet==5 & Outcome==1),
mods=~factor(AllCon), data= LQuality, method="REML")
> Summary(LTGbias)
```

```
>LCholbias<-rma(d.ex.,var_d.ex., subset=(Diet==5 & Outcome==2),
mods=~factor(AllCon), data= LQuality, method="REML")
> Summary(LCholbias)

>LLDLbias<-rma(d.ex.,var_d.ex., subset=(Diet==5 & Outcome==3),
mods=~factor(AllCon), data= LQuality, method="REML")
> Summary(LLDLbias)

>LHDLbias<-rma(d.ex.,var_d.ex., subset=(Diet==5 & Outcome==4),
mods=~factor(AllCon), data= LQuality, method="REML")
> Summary(LHDLbias)
```

Blinding-1

```
> LTGbias <-rma(d.ex.,var_d.ex., subset=(Diet==5 & Outcome==1),
mods=~factor(Blinding)-1, data= LQuality, method="REML")
> Summary(MTGbias)

>LCholbias<-rma(d.ex.,var_d.ex., subset=(Diet==5 & Outcome==2),
mods=~factor(Blinding)-1, data= LQuality, method="REML")
> Summary(MTGbias)

>LLDLbias<-rma(d.ex.,var_d.ex., subset=(Diet==5 & Outcome==3),
mods=~factor(Blinding)-1, data= LQuality, method="REML")
> Summary(MTGbias)

>LHDLbias<-rma(d.ex.,var_d.ex., subset=(Diet==5 & Outcome==4),
mods=~factor(Blinding)-1, data= LQuality, method="REML")
> Summary(MHDLbias)
```

Blinding

```
> LTGbias <-rma(d.ex.,var_d.ex., subset=(Diet==5 & Outcome==1),
mods=~factor(Blinding), data= LQuality, method="REML")
> Summary(LTGbias)

>LCholbias<-rma(d.ex.,var_d.ex., subset=(Diet==5 & Outcome==2),
mods=~factor(Blinding), data= LQuality, method="REML")
> Summary(LCholbias)

>LLDLbias<-rma(d.ex.,var_d.ex., subset=(Diet==5 & Outcome==3),
mods=~factor(Blinding), data= LQuality, method="REML")
> Summary(LLDLbias)

>LHDLbias<-rma(d.ex.,var_d.ex., subset=(Diet==5 & Outcome==4),
mods=~factor(Blinding), data= LQuality, method="REML")
> Summary(LHDLbias)
```

Incomp-1

```
> LTGbias <-rma(d.ex.,var_d.ex., subset=(Diet==5 & Outcome==1),
mods=~factor(Incomp)-1, data= LQuality, method="REML")
> Summary(LTGbias)
```

```
>LCholbias<-rma(d.ex.,var_d.ex., subset=(Diet==5 & Outcome==2),
mods=~factor(Incomp)-1, data= LQuality, method="REML")
> Summary(LCholbias)

>LLDLbias<-rma(d.ex.,var_d.ex., subset=(Diet==5 & Outcome==3),
mods=~factor(Incomp)-1, data= LQuality, method="REML")
> Summary(LTGbias)

>LHDLbias<-rma(d.ex.,var_d.ex., subset=(Diet==5 & Outcome==4),
mods=~factor(Incomp)-1, data= LQuality, method="REML")
> Summary(LHDLbias)
```

Incomp

```
> LTGbias <-rma(d.ex.,var_d.ex., subset=(Diet==5 & Outcome==1),
mods=~factor(Incomp), data= LQuality, method="REML")
> Summary(LTGbias)

>LCholbias<-rma(d.ex.,var_d.ex., subset=(Diet==5 & Outcome==2),
mods=~factor(Incomp), data= LQuality, method="REML")
> Summary(LCholbias)

>LLDLbias<-rma(d.ex.,var_d.ex., subset=(Diet==5 & Outcome==3),
mods=~factor(Incomp), data= LQuality, method="REML")
> Summary(LLDLbias)

>LHDLbias<-rma(d.ex.,var_d.ex., subset=(Diet==5 & Outcome==4),
mods=~factor(Incomp), data= LQuality, method="REML")
> Summary(LHDLbias)
```

Select-1

```
> LTGbias <-rma(d.ex.,var_d.ex., subset=(Diet==5 & Outcome==1),
mods=~factor(Select)-1, data= LQuality, method="REML")
> Summary(LTGbias)

>LCholbias<-rma(d.ex.,var_d.ex., subset=(Diet==5 & Outcome==2),
mods=~factor(Select)-1, data= LQuality, method="REML")
> Summary(LCholbias)

>LLDLbias<-rma(d.ex.,var_d.ex., subset=(Diet==5 & Outcome==3),
mods=~factor(Select)-1, data= LQuality, method="REML")
> Summary(LLDLbias)

>LHDLbias<-rma(d.ex.,var_d.ex., subset=(Diet==5 & Outcome==4),
mods=~factor(Select)-1, data= LQuality, method="REML")
> Summary(LHDLbias)
```

Select

```
> LTGbias <-rma(d.ex.,var_d.ex., subset=(Diet==5 & Outcome==1),
mods=~factor(Select), data= LQuality, method="REML")
> Summary(LTGbias)
```

>LCholbias<-rma(d.ex.,var_d.ex., subset=(Diet==5 & Outcome==2),
mods=~factor(Select), data= LQuality, method="REML")
> Summary(LCholbias)

>LLDLbias<-rma(d.ex.,var_d.ex., subset=(Diet==5 & Outcome==3),
mods=~factor(Select), data= LQuality, method="REML")
> Summary(LLDLbias)

>LHDLbias<-rma(d.ex.,var_d.ex., subset=(Diet==5 & Outcome==4),
mods=~factor(Select), data= LQuality, method="REML")
> Summary(LHDLbias)

OtherBias-1
> LTGbias <-rma(d.ex.,var_d.ex., subset=(Diet==5 & Outcome==1),
mods=~factor(OtherBias)-1, data= LQuality, method="REML")
> Summary(LTGbias)

>LCholbias<-rma(d.ex.,var_d.ex., subset=(Diet==5 & Outcome==2),
mods=~factor(OtherBias)-1, data= LQuality, method="REML")
> Summary(LCholbias)

>LLDLbias<-rma(d.ex.,var_d.ex., subset=(Diet==5 & Outcome==3),
mods=~factor(OtherBias)-1, data= LQuality, method="REML")
> Summary(LLDLbias)

>LHDLbias<-rma(d.ex.,var_d.ex., subset=(Diet==5 & Outcome==4),
mods=~factor(OtherBias)-1, data= LQuality, method="REML")
> Summary(LHDLbias)

OtherBias
> LTGbias <-rma(d.ex.,var_d.ex., subset=(Diet==5 & Outcome==1),
mods=~factor(OtherBias), data= LQuality, method="REML")
> Summary(MTGbias)

>LCholbias<-rma(d.ex.,var_d.ex., subset=(Diet==5 & Outcome==2),
mods=~factor(OtherBias), data= LQuality, method="REML")
> Summary(LCholbias)

>LLDLbias<-rma(d.ex.,var_d.ex., subset=(Diet==5 & Outcome==3),
mods=~factor(OtherBias), data= LQuality, method="REML")
> Summary(LLDLbias)

>LHDLbias<-rma(d.ex.,var_d.ex., subset=(Diet==5 & Outcome==4),
mods=~factor(OtherBias), data= LQuality, method="REML")
> Summary(LHDLbias)

Moderator Analysis Low Fat Diet Without Statins

Length of Intervention
> lfdTGwks<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==1),
mods=Weeks, data= LFDalone, method="REML")

```
> lfdTGwks

> lfdCholwks<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==2),
mods=Weeks, data= LFDalone, method="REML")
> lfdCholwks

> lfdLDLwks<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==3),
mods=Weeks, data= LFDalone, method="REML")
> lfdLDLwks

> lfdHDLwks<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==4),
mods=Weeks, data= LFDalone, method="REML")
> lfdHDLwks

# Proprtion of Females
> lfdTGfem<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==1),
mods=Female, data= LFDalone, method="REML")
> lfdTGfem

> lfdCholfem<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==2),
mods=Female, data= LFDalone, method="REML")
> lfdCholfem

> lfdLDLfem<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==3),
mods=Female, data= LFDalone, method="REML")
> lfdLDLfem

> lfdHDLfem<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==4),
mods=Female, data= LFDalone, method="REML")
> lfdfHDLem

# Region (USA)
> lfdTGusa<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==1),
mods=(Region==1), data= LFDalone, method="REML")
> lfdTGusa

> lfdCholusa<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==2),
mods=(Region==1), data= LFDalone, method="REML")
> lfdCholusa

> lfdLDLusa<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==3),
mods=(Region==1), data= LFDalone, method="REML")
> lfdLDLusa

> lfdHDLusa<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==4),
mods=(Region==1), data= LFDalone, method="REML")
> lfdHDLusa

# Region (Europe)
> lfdTGregion<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==1),
mods=(Region==2), data= LFDalone, method="REML")
```

```
> lfdTGregion

> lfdCholregion<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==2),
mods=(Region==2), data= LFDalone, method="REML")
> lfdCholregion

> lfdLDLregion<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==3),
mods=(Region==2), data= LFDalone, method="REML")
> lfdLDLregion

> lfdHDLregion<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==4),
mods=(Region==2), data= LFDalone, method="REML")
> lfdHDLregion

# Intervention Sample Size
> LTGIntN<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==1), mods=
n_post, data= LFDalone, method="REML")
> LTGIntN

> LCholIntN <-rma(d.ex.,var_d.ex.,subset=(Diet ==4 & Outcome==2), mods=
n_post, data= LFDalone, method="REML")
> LCholIntN

> LLDLIntN<-rma(d.ex.,var_d.ex.,subset=(Diet ==4 & Outcome==3), mods=
n_post, data= LFDalone, method="REML")
> LLDLIntN

> LHDLIntN<-rma(d.ex.,var_d.ex.,subset=(Diet ==4 & Outcome==4), mods=
n_post, data= LFDalone, method="REML")
> LHDLIntN

# Total Sample Size
> LTGN<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==1), mods=Ntotal,
data= LFDalone, method="REML")
> LTGN

> LCholN <-rma(d.ex.,var_d.ex.,subset=(Diet ==4 & Outcome==2), mods=
Ntotal, data= LFDalone, method="REML")
> LCholN

> LLDLN<-rma(d.ex.,var_d.ex.,subset=(Diet ==4 & Outcome==3), mods= Ntotal,
data= LFDalone, method="REML")
> LLDLN

> LHDLN<-rma(d.ex.,var_d.ex.,subset=(Diet ==4 & Outcome==4), mods= Ntotal,
data= LFDalone, method="REML")
> LHDLN

# Proportion of Subjects with Dyslipidemia
> lfdTGdys<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==1), mods=Dys,
data= LFDalone, method="REML")
```

```
> lfdTGdys

> lfdCholdys <-rma(d.ex.,var_d.ex.,subset=(Diet ==4 & Outcome==2), mods=
Dys, data= LFDalone, method="REML")
> MCholdys

> lfdLDLdys<-rma(d.ex.,var_d.ex.,subset=(Diet ==4 & Outcome==3), mods= Dys,
data= LFDalone, method="REML")
> lfdLDLdys

> lfdHDLdys<-rma(d.ex.,var_d.ex.,subset=(Diet ==4 & Outcome==4), mods=
Dys, data= LFDalone, method="REML")
> lfdHDLdys

#Proportion of Subjects with HTN
> LTGhtn<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==1), mods=HTN,
data= LFDalone, method="REML")
> LTGhtn

> LCholhtn <-rma(d.ex.,var_d.ex.,subset=(Diet ==4 & Outcome==2), mods=
HTN, data= LFDalone, method="REML")
> LCholhtn

> LLDLhtn<-rma(d.ex.,var_d.ex.,subset=(Diet ==4 & Outcome==3), mods= HTN,
data= LFDalone, method="REML")
> LLDLhtn

> LHDLhtn<-rma(d.ex.,var_d.ex.,subset=(Diet ==4 & Outcome==4), mods= HTN,
data= LFDalone, method="REML")
> LHDLhtn

# Mean Age
> LTGage<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==1), mods= Age,
data= LFDalone, method="REML")
> LTGage

> LCholage<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==2), mods=Age,
data= LFDalone, method="REML")
> LCholage

> LLDLage<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==3), mods= Age,
data= LFDalone, method="REML")
> LLDLage

> LHDLage<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==4), mods= Age,
data= LFDalone, method="REML")
> LHDLage

# Carbohydrate intake
> LTGcarb<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==1), mods=
Carbs, data= LFDalone, method="REML")
```

```
> LTGcarb

> LCholcarb <-rma(d.ex.,var_d.ex.,subset=(Diet ==4 & Outcome==2), mods=
Carbs, data= LFDalone, method="REML")
> LCholcarb

> LLDLcarb<-rma(d.ex.,var_d.ex.,subset=(Diet ==4 & Outcome==3), mods=
Carbs, data= LFDalone, method="REML")
> LLDLcarb

> LHDLcarb<-rma(d.ex.,var_d.ex.,subset=(Diet ==4 & Outcome==4), mods=
Carbs, data= LFDalone, method="REML")
> LHDLcarb

# Fat intake
> LTGfat<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==1), mods= Fat,
data= LFDalone, method="REML")
> LTGfat

> LCholfat<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==2), mods= Fat,
data= LFDalone, method="REML")
> LCholfat

> LLDLfat<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==3), mods= Fat,
data= LFDalone, method="REML")
> LLDLfat

> LHDLfat<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==4), mods= Fat,
data= LFDalone, method="REML")
> LHDLfat

# Protein intake
> LTGpro<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==1), mods=
Protein, data= LFDalone, method="REML")
> LTGpro

> LCholpro<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==2), mods=
Protein, data= LFDalone, method="REML")
> LCholpro

> LLDLpro<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==3), mods=
Protein, data= LFDalone, method="REML")
> LLDLpro

> LHDLpro<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==4), mods=
Protein, data= LFDalone, method="REML")
> LHDLpro

# Proportion of Subjects Taking ACE Inhibitors
> LTGACE<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==1), mods=
PropACE, data= LFDalone, method="REML")
```

```
> LTGACE

> LCholACE<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==2), mods=
PropACE, data= LFDalone, method="REML")
> LCholACE

> LLDLACE<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==3), mods=
PropACE, data= LFDalone, method="REML")
> LLDLACE

> LHDLACE<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==4), mods=
PropACE, data= LFDalone, method="REML")
> LHDLACE

# Number of Subjects Taking ACE Inhibitors
> LTGnoACE<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==1), mods=
NoACE, data= LFDalone, method="REML")
> LTGnoACE

> LCholnoACE<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==2), mods=
NoACE, data= LFDalone, method="REML")
> LCholnoACE

> LLDLnoACE<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==3), mods=
NoACE, data= LFDalone, method="REML")
> LLDLnoACE

> LHDLnoACE<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==4), mods=
NoACE, data= LFDalone, method="REML")
> LHDLnoACE

# Number Subjects with HTN
> LTGnohtn<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==1), mods=
NoHTN, data= LFDalone, method="REML")
> LTGnohtn

> LCholnohtn<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==2), mods=
NoHTN, data= LFDalone, method="REML")
> LCholnohtn

> LLDLnohtn<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==3), mods=
NoHTN, data= LFDalone, method="REML")
> LLDLnohtn

> LHDLnohtn<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==4), mods=
NoHTN, data= LFDalone, method="REML")
> LHDLnohtn

# Number Subjects with CVD
> LTGnocvd<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==1), mods=
NoCVD, data= LFDalone, method="REML")
```

```
> LTGnocvd

> LCholnocvd<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==2), mods=
NoCVD, data= LFDalone, method="REML")
> LCholnocvd

> LLDLnocvd<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==3), mods=
NoCVD, data= LFDalone, method="REML")
> LLDLnocvd

> LHDLnocvd<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==4), mods=
NoCVD, data= LFDalone, method="REML")
> LHDLnocvd

# Cholesterol Intake
> LTGchol<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==1), mods=
Cholesterol, data= LFDalone, method="REML")
> LTGchol

> LCholchol<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==2), mods=
Cholesterol, data= LFDalone, method="REML")
> LCholchol

> LLDLchol<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==3), mods=
Cholesterol, data= LFDalone, method="REML")
> LLDLchol

> LHDLchol<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==4), mods=
Cholesterol, data= LFDalone, method="REML")
> LHDLchol

# Fiber Intake
> LTGFiber <-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==1), mods=
Fiber, data= LFDalone, method="REML")
> LTGFiber

> LCholFiber <-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==2), mods=
Fiber, data= LFDalone, method="REML")
> LCholFiber

> LLDLFiber<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==3), mods=
Fiber, data= LFDalone, method="REML")
> LLDLFiber

> LHDLFiber<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==4), mods=
Fiber, data= LFDalone, method="REML")
> LHDLFiber

#Moving Constant Technique
# Length of Intervention (Weeks)
> wksmax = 260 -LFDalone$Weeks
```

```
> wksmax

> wksmin =LFDalone$Weeks - 4
> wksmin

> LTGwksmax<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==1), mods=
wksmax, data= LFDalone, method="REML")
> LTGwksmax

> LTGwksmin<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==1), mods=
wksmin, data=LFDalone, method="REML")
> LTGwksmin

> LCholwksmax<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==2), mods=
wksmax, data=LFDalone, method="REML")
> LCholwksmax

> LCholwksmin<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==2), mods=
wksmin, data=LFDalone, method="REML")
> LCholwksmin

> LLDLwksmax<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==3), mods=
wksmax, data=LFDalone, method="REML")
> LLDLwksmax

> LLDLwksmin<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==3),
mods=wksmin, data=LFDalone, method="REML")
> LLDLwksmin

> LHDLwksmax<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==4), mods=
wksmax, data=LFDalone, method="REML")
> LHDLwksmax

> LHDLwksmin<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==4), mods=
wksmin, data=LFDalone, method="REML")
> LHDLwksmin

# Female
> femmax = 1.0 - LFDalone$Female
> femmax

> femmin =LFDalone$Female - 0
> femmin

> LTGfemmax<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==1), mods=
femmax, data= LFDalone, method="REML")
> LTGfemmax

> LTGfemmin<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==1), mods=
femmin, data=LFDalone, method="REML")
> LTGfemmin
```

```
> LCholfemmax<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==2), mods=
femmax, data=LFDalone, method="REML")
> LCholfemmax

> LCholfemmin<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==2), mods=
femmin, data=LFDalone, method="REML")
> LCholfemmin

> LLDLfemmax<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==3), mods=
femmax, data=LFDalone, method="REML")
> LLDLfemmax

> LLDLfemmin<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==3),
mods=femmin, data=LFDalone, method="REML")
> LLDLfemmin

> LHDLfemmax<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==4), mods=
femmax, data=LFDalone, method="REML")
> LHDLfemmax

> LHDLfemmin<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==4), mods=
femmin, data=LFDalone, method="REML")
> LHDLfemmin

# Total Sample Size
> lNmax = 5850 -LFDalone$Ntotal
> lNmax

> lNmin =LFDalone$Ntotal - 30
> lNmin

> LTGNmax<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==1), mods=
lNmax, data= LFDalone, method="REML")
> LTGNmax

> LTGNmin<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==1), mods=
lNmin, data=LFDalone, method="REML")
> LTGNmin

> LCholNmax<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==2), mods=
lNmax, data=LFDalone, method="REML")
> LCholNmax

> LCholNmin<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==2), mods=
lNmin, data=LFDalone, method="REML")
> LCholNmin

> LLDLNmax<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==3), mods=
lNmax, data=LFDalone, method="REML")
> LLDLNmax
```

```
> LLDLNmin<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==3),
mods=lNmin, data=LFDalone, method="REML")
> LLDLNmin

> LHDLNmax<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==4), mods=
lNmax, data=LFDalone, method="REML")
> LHDLNmax

> LHDLNmin<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==4), mods=
lNmin, data=LFDalone, method="REML")
> LHDLNmin

# Age
> agemax = 69.5 -LFDalone$Age
> agemax

> agemin =LFDalone$Age - 43
> agemin

> LTGagemax<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==1), mods=
agemax, data= LFDalone, method="REML")
> LTGagemax

> LTGagemin<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==1), mods=
agemin, data=LFDalone, method="REML")
> LTGagemin

> LCholagemax<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==2), mods=
agemax, data=LFDalone, method="REML")
> LCholagemax

> LCholagemin<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==2), mods=
agemin, data=LFDalone, method="REML")
> LCholagemin

> LLDLagemax<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==3), mods=
agemax, data=LFDalone, method="REML")
> LLDLagemax

> LLDLagemin<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==3),
mods=agemin, data=LFDalone, method="REML")
> LLDLagemin

> LHDLagemax<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==4), mods=
agemax, data=LFDalone, method="REML")
> LHDLagemax

> LHDLagemin<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==4), mods=
agemin, data=LFDalone, method="REML")
> LHDLagemin
```

```
# Proportion of Subjects with Dyslipidemia
> Dysmax = 1 -LFDalone$Dys
> Dysmax

> Dysmin =LFDalone$Dys - 0
> Dysmin

> LTGdysmax<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==1), mods=
Dysmax, data= LFDalone, method="REML")
> LTGdysmax

> LTGdysmin<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==1), mods=
Dysmin, data=LFDalone, method="REML")
> LTGdysmin

> LCholdysmax<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==2), mods=
Dysmax, data=LFDalone, method="REML")
> LCholdysmax

> LCholdysmin<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==2), mods=
Dysmin, data=LFDalone, method="REML")
> LCholdysmin

> LLDLdysmax<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==3), mods=
Dysmax, data=LFDalone, method="REML")
> LLDLdysmax

> LLDLdysmin<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==3),
mods=Dysmin, data=LFDalone, method="REML")
> LLDLdysmin

> LHDLdysmax<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==4), mods=
Dysmax, data=LFDalone, method="REML")
> LHDLdysmax

> LHDLdysmin<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==4), mods=
Dysmin, data=LFDalone, method="REML")
> LHDLdysmin

# Proportion of Subjects with Hypertension
> HTNmax = .946 -LFDalone$HTN
> HTNmax

> HTNmin =LFDalone$HTN - .35
> HTNmin

> LTGHTNmax<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==1), mods=
HTNmax, data= LFDalone, method="REML")
> LTGHTNmax
```

```
> LTGHTNmin<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==1), mods=
HTNmin, data=LFDalone, method="REML")
> LTGHTNmin

> LCholHTNmax<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==2), mods=
HTNmax, data=LFDalone, method="REML")
> LCholHTNmax

> LCholHTNmin<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==2), mods=
HTNmin, data=LFDalone, method="REML")
> LCholHTNmin

> LLDLHTNmax<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==3), mods=
HTNmax, data=LFDalone, method="REML")
> LLDLHTNmax

> LLDLHTNmin<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==3),
mods=HTNmin, data=LFDalone, method="REML")
> LLDLHTNmin

> LHDLHTNmax<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==4), mods=
HTNmax, data=LFDalone, method="REML")
> LHDLHTNmax

> LHDLHTNmin<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==4), mods=
HTNmin, data=LFDalone, method="REML")
> LHDLHTNmin

#Number of Subjects with Hypertension
> NHTNmax = 328 -LFDalone$NoHTN
> NHTNmax

> NHTNmin =LFDalone$NoHTN - 0
> NHTNmin

> LTGNHTNmax<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==1), mods=
NHTNmax, data= LFDalone, method="REML")
> LTGNHTNmax

> LTGNHTNmin<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==1), mods=
NHTNmin, data=LFDalone, method="REML")
> LTGNHTNmin

> LCholNHTNmax<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==2),
mods= NHTNmax, data=LFDalone, method="REML")
> LCholNHTNmax

> LCholNHTNmin<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==2), mods=
NHTNmin, data=LFDalone, method="REML")
> LCholNHTNmin
```

```
> LLDLNHTNmax<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==3),
mods= NHTNmax, data=LFDalone, method="REML")
> LLDLNHTNmax

> LLDLNHTNmin<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==3),
mods=NHTNmin, data=LFDalone, method="REML")
> LLDLNHTNmin

> LHDLNHTNmax<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==4),
mods= NHTNmax, data=LFDalone, method="REML")
> LHDLNHTNmax

> LHDLNHTNmin<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==4), mods=
NHTNmin, data=LFDalone, method="REML")
> LHDLNHTNmin

# Fat Intake
> fatmax = .382 -LFDalone$Fat
> fatmax

> fatmin =LFDalone$Fat - .246
> fatmin

> LTGfatmax<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==1), mods=
fatmax, data= LFDalone, method="REML")
> LTGHfatmax

> LTGHfatmin<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==1), mods=
fatmin, data=LFDalone, method="REML")
> LTGfatmin

> LCholfatmax<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==2), mods=
fatmax, data=LFDalone, method="REML")
> LCholfatmax

> LCholfatmin<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==2), mods=
fatmin, data=LFDalone, method="REML")
> LCholfatmin

> LLDLfatmax<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==3), mods=
fatmax, data=LFDalone, method="REML")
> LLDLfatmax

> LLDLfatmin<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==3),
mods=fatmin, data=LFDalone, method="REML")
> LLDLfatmin

> LHDLfatmax<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==4),
mods=fatmax, data=LFDalone, method="REML")
> LHDLfatmax
```

```
> LHDLfatmin<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==4), mods=
fatmin, data=LFDalone, method="REML")
> LHDLfatmin

# Protein Intake
> promax = .222 -LFDalone$Protein
> promax

> promin =LFDalone$Protein - .1
> promin

> LTGpromax<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==1), mods=
promax, data= LFDalone, method="REML")
> LTGHpromax

> LTGpromin<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==1), mods=
promin, data=LFDalone, method="REML")
> LTGpromin

> LCholpromax<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==2), mods=
promax, data=LFDalone, method="REML")
> LCholpromax

> LCholpromin<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==2), mods=
promin, data=LFDalone, method="REML")
> LCholpromin

> LLDLpromax<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==3), mods=
promax, data=LFDalone, method="REML")
> LLDLpromax

> LLDLpromin<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==3),
mods=promin, data=LFDalone, method="REML")
> LLDLpromin

> LHDLpromax<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==4),
mods=promax, data=LFDalone, method="REML")
> LHDLpromax

> LHDLpromin<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==4), mods=
promin, data=LFDalone, method="REML")
> LHDLpromin

# Proportion of Subjects Taking ACE inhibitors
> ACEmax = .54 - LFDalone$PropACE
> ACEmax

> ACEmin =LFDalone$PropACE - 0
> ACEmin
```

```
> LTGACEmax<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==1), mods=
ACEmax, data= LFDalone, method="REML")
> LTGHACEmax

> LTGHACEmin<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==1), mods=
ACEmin, data=LFDalone, method="REML")
> LTGACEmin

> LCholACEmax<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==2), mods=
ACEmax, data=LFDalone, method="REML")
> LCholACEmax

> LCholACEmin<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==2), mods=
ACEmin, data=LFDalone, method="REML")
> LCholACEmin

> LLDLACEmax<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==3), mods=
ACEmax, data=LFDalone, method="REML")
> LLDLACEmax

> LLDLACEmin<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==3),
mods=ACEmin, data=LFDalone, method="REML")
> LLDLACEmin

> LHDLACEmax<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==4),
mods=ACEmax, data=LFDalone, method="REML")
> LHDLACEmax

> LHDLACEmin<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==4), mods=
ACEmin, data=LFDalone, method="REML")
> LHDLACEmin

# Number of Subjects Taking ACE inhibitors
> NACEmax = 114 - LFDalone$NoACE
> NACEmax

> NACEmin =LFDalone$NoACE - 0
> NACEmin

> LTGNACEmax<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==1), mods=
NACEmax, data= LFDalone, method="REML")
> LTGHNACEmax

> LTGHNACEmin<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==1),
mods= NACEmin, data=LFDalone, method="REML")
> LTGNACEmin

> LCholNACEmax<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==2),
mods= NACEmax, data=LFDalone, method="REML")
> LCholNACEmax
```

```
> LCholNACEmin<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==2), mods=
NACEmin, data=LFDalone, method="REML")
> LCholNACEmin

> LLDLNACEmax<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==3),
mods= NACEmax, data=LFDalone, method="REML")
> LLDLNACEmax

> LLDLNACEmin<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==3),
mods=NACEmin, data=LFDalone, method="REML")
> LLDLNACEmin

> LHDLNACEmax<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==4),
mods=NACEmax, data=LFDalone, method="REML")
> LHDLNACEmax

> LHDLNACEmin<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==4), mods=
NACEmin, data=LFDalone, method="REML")
> LHDLNACEmin

# Number of Subjects with Cardiovascular Disease
> CVDmax = 107 - LFDalone$NoCVD
> CVDmax

> CVDmin =LFDalone$NoCVD - 0
> CVDmin

> LTGCVDmax<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==1), mods=
CVDmax, data= LFDalone, method="REML")
> LTGCVDmax

> LTGCVDmin<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==1), mods=
CVDmin, data=LFDalone, method="REML")
> LTGCVDmin

> LCholCVDmax<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==2), mods=
CVDmax, data=LFDalone, method="REML")
> LCholCVDmax

> LCholCVDmin<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==2), mods=
CVDmin, data=LFDalone, method="REML")
> LCholCVDmin

> LLDLCVDmax<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==3), mods=
CVDmax, data=LFDalone, method="REML")
> LLDLCVDmax

> LLDLCVDmin<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==3),
mods=CVDmin, data=LFDalone, method="REML")
> LLDLCVDmin
```

```
> LHDLCVDmax<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==4), mods=
CVDmax, data=LFDalone, method="REML")
> LHDLCVDmax

> LHDLCVDmin<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==4), mods=
CVDmin, data=LFDalone, method="REML")
> LHDLCVDmin

# Cholesterol Intake
> Cmax = 300 - LFDalone$Cholesterol
> Cmax

> Cmin =LFDalone$Cholesterol - 28
> Cmin

> LTGCmax<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==1), mods=
Cmax, data= LFDalone, method="REML")
> LTGCmax

> LTGCmin<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==1), mods=
Cmin, data=LFDalone, method="REML")
> LTGCmin

> LCholCmax<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==2), mods=
Cmax, data=LFDalone, method="REML")
> LCholCmax

> LCholCmin<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==2), mods=
Cmin, data=LFDalone, method="REML")
> LCholCmin

> LLDLCmax<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==3), mods=
Cmax, data=LFDalone, method="REML")
> LLDLCmax

> LLDLCmin<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==3),
mods=Cmin, data=LFDalone, method="REML")
> LLDLCmin

> LHDLCmax<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==4), mods=
Cmax, data=LFDalone, method="REML")
> LHDLCmax

> LHDLCmin<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==4), mods=
Cmin, data=LFDalone, method="REML")
> LHDLCmin

# Fiber Intake
> Fmax = 57 - LFDalone$Fiber
> Fmax
```

```
> Fmin =LFDalone$Fiber – 23.6
> Fmin

> LTGFmax<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==1), mods=
Fmax, data= LFDalone, method="REML")
> LTGFmax

> LTGFmin<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==1), mods= Fmin,
data=LFDalone, method="REML")
> LTGFmin

> LCholFmax<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==2), mods=
Fmax, data=LFDalone, method="REML")
> LCholFmax

> LCholFmin<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==2), mods=
Fmin, data=LFDalone, method="REML")
> LCholFmin

> LLDLFmax<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==3), mods=
Fmax, data=LFDalone, method="REML")
> LLDLFmax

> LLDLFmin<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==3),
mods=Fmin, data=LFDalone, method="REML")
> LLDLFmin

> LHDLFmax<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==4), mods=
Fmax, data=LFDalone, method="REML")
> LHDLFmax

> LHDLFmin<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==4), mods=
Fmin, data=LFDalone, method="REML")
> LHDLFmin

#Region Study Conducted
> LTGUSA<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==1), mods=
(Region==1), data= LFDalone, method="REML")
> LTGUSA

> LCholUSA<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==2), mods=
(Region==1), data=LFDalone, method="REML")
> LCholUSA

> LLDLUSA<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==3), mods=
(Region==1), data=LFDalone, method="REML")
> LLDLUSA

> LHDLUSA<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==4), mods=
(Region==1), data=LFDalone, method="REML")
> LHDLUSA
```

```
> LTGeuro<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==1), mods=
(Region==4), data= LFDalone, method="REML")
> LTGeuro

> LCholeuro<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==2), mods=
(Region==4), data=LFDalone, method="REML")
> LCholeuro

> LLDLeuro<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==3), mods=
(Region==4), data=LFDalone, method="REML")
> LLDLeuro

> LHDLeuro<-rma(d.ex.,var_d.ex.,subset=(Diet==4 & Outcome==4), mods=
(Region==4), data=LFDalone, method="REML")
> LHDLeuro
```

Moderator Analysis Low Fat Diet with Statins

```
# Length of Intervention
> lfdTGwks<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1),
mods=Weeks, data= LFDietStatins, method="REML")
> lfdTGwks

> lfdCholwks<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==2),
mods=Weeks, data= LFDietStatins, method="REML")
> lfdCholwks

> lfdLDLwks<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==3),
mods=Weeks, data= LFDietStatins, method="REML")
> lfdLDLwks

> lfdHDLwks<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==4),
mods=Weeks, data= LFDietStatins, method="REML")
> lfdHDLwks

# Proprtion of Females
> lfdTGfem<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1),
mods=Female, data= LFDietStatins, method="REML")
> lfdTGfem

> lfdCholfem<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==2),
mods=Female, data= LFDietStatins, method="REML")
> lfdCholfem

> lfdLDLfem<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==3),
mods=Female, data= LFDietStatins, method="REML")
> lfdLDLfem
```

```
> lfdHDLfem<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==4),
mods=Female, data= LFDietStatins, method="REML")
> lfdfHDLem

# Region (USA)
> lfdTGusa<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1),
mods=(Region==1), data= LFDietStatins, method="REML")
> lfdTGusa

> lfdCholusa<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==2),
mods=(Region==1), data= LFDietStatins, method="REML")
> lfdCholusa

> lfdLDLusa<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==3),
mods=(Region==1), data= LFDietStatins, method="REML")
> lfdLDLusa

> lfdHDLusa<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==4),
mods=(Region==1), data= LFDietStatins, method="REML")
> lfdHDLusa

# Region (Europe)
> lfdTGregion<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1),
mods=(Region==2), data= LFDietStatins, method="REML")
> lfdTGregion

> lfdCholregion<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==2),
mods=(Region==2), data= LFDietStatins, method="REML")
> lfdCholregion

> lfdLDLregion<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==3),
mods=(Region==2), data= LFDietStatins, method="REML")
> lfdLDLregion

> lfdHDLregion<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==4),
mods=(Region==2), data= LFDietStatins, method="REML")
> lfdHDLregion

# Hypertension
> lfdTGHTN<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1), mods=HTN,
data= LFDietStatins, method="REML")
> lfdTGHTN

> lfdColHTN<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==2), mods=HTN,
data= LFDietStatins, method="REML")
> lfdColHTN

> lfdLDLHTN<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==3),
mods=HTN, data= LFDietStatins, method="REML")
> lfdLDLHTN
```

```
> lfdHDLHTN<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==4),
mods=HTN, data= LFDietStatins, method="REML")
> lfdHDLHTN

# Current Smokers
> lfdTGSmoke<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1), mods=
Smoke, data= LFDietStatins, method="REML")
> lfdTGSmoke

> lfdCholSmoke<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==2),
mods=Smoke, data= LFDietStatins, method="REML")
> lfdCholSmoke

> lfdLDLSmoke<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==3), mods=
Smoke, data= LFDietStatins, method="REML")
> lfdLDLSmoke

> lfdHDLSmoke<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==4), mods=
Smoke, data= LFDietStatins, method="REML")
> lfdHDLSmoke

# Impact Factor
> lfdTGIPP<-rma(d.ex.,var_d.ex., subset=(Diet==5 & Outcome==1), mods=IPP,
data= LFDietStatins, method="REML")
> lfdTGIPP

> lfdCholIPP <-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==2), mods=
IPP, data= LFDietStatins, method="REML")
> lfdCholIPP

> lfdLDLIPP<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==3), mods= IPP,
data= LFDietStatins, method="REML")
> lfdLDLIPP

> lfdHDLIPP<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==4), mods=
IPP, data= LFDietStatins, method="REML")
> lfdHDLIPP

# Statin Dose
> lfdTGdose<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1),
mods=Dose, data= LFDietStatins, method="REML")
> lfdTGdose

> lfdCholdose <-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==2), mods=
Dose, data= LFDietStatins, method="REML")
> lfdCholdose

> lfdLDLdose<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==3), mods=
Dose, data= LFDietStatins, method="REML")
> lfdLDLdose
```

```
> lfdHDLdose<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==4), mods=
Dose, data= LFDietStatins, method="REML")
> lfdHDLdose

# Methodological Quality Score
> lfdTGMQ<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1), mods=MQ,
data= LFDietStatins, method="REML")
> lfdTGMQ

> lfdCholMQ <-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==2), mods=
MQ, data= LFDietStatins, method="REML")
> MCholMQ

# LDL-Cholesterol
> lfdLDLMQ<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==3), mods= MQ,
data= LFDietStatins, method="REML")
> lfdLDLMQ

> lfdHDLMQ<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==4), mods=
MQ, data= LFDietStatins, method="REML")
> lfdHDLMQ

# Mean Age
> LTGage<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1), mods=Age,
data= LFDietStatins, method="REML")
> LTGage

> LCholage <-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==2), mods=
Age, data= LFDietStatins, method="REML")
> LCholage

> LLDLage<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==3), mods= Age,
data= LFDietStatins, method="REML")
> LLDLage

> LHDLage <-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==4), mods=
Age, data= LFDietStatins, method="REML")
> LHDLage

#Fat Intake
> LTGfat<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1), mods=Fat,
data= LFDietStatins, method="REML")
> LTGfat

> LCholfat <-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==2), mods= Fat,
data= LFDietStatins, method="REML")
> LCholfat

> LLDLfat<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==3), mods= Fat,
data= LFDietStatins, method="REML")
> LLDLfat
```

```
> LHDLfat <-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==4), mods= Fat,
data= LFDietStatins, method="REML")
> LHDLfat

#Carb Intake
> LTGcarb<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1), mods=Carbs,
data= LFDietStatins, method="REML")
> LTGcarb

> LCholcarb <-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==2), mods=
Carbs, data= LFDietStatins, method="REML")
> LCholcarb

> LLDLcarb<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==3), mods=
Carbs, data= LFDietStatins, method="REML")
> LLDLcarb

> LHDLcarb <-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==4), mods=
Carbs, data= LFDietStatins, method="REML")
> LHDLcarb

#Protein Intake
> LTGpro<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1), mods=
Protein, data= LFDietStatins, method="REML")
> LTGpro

> LCholpro <-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==2), mods=
Protein, data= LFDietStatins, method="REML")
> LCholpro

> LLDLpro<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==3), mods=
Protein, data= LFDietStatins, method="REML")
> LLDLpro

> LHDLpro <-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==4), mods=
Protein, data= LFDietStatins, method="REML")
> LHDLpro

# Length Follow-Up
> LTGfu<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1), mods=
FollowUp, data= LFDietStatins, method="REML")
> LTGfu

> LCholfu <-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==2), mods=
FollowUp, data= LFDietStatins, method="REML")
> LCholfu

> LLDLfu<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==3), mods=
FollowUp, data= LFDietStatins, method="REML")
> LLDLfu
```

```
> LHDLfu <-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==4), mods=
FollowUp, data= LFDietStatins, method="REML")
> LHDLfu

# Number of Follow-Ups
> LTGnofu<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1),
mods=NoFollowUp, data= LFDietStatins, method="REML")
> LTGnofu

> LCholnofu <-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==2), mods=
NoFollowUp, data= LFDietStatins, method="REML")
> LCholnofu

> LLDLnofu<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==3), mods=
NoFollowUp, data= LFDietStatins, method="REML")
> LLDLnofu

> LHDLnofu <-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==4), mods=
NoFollowUp, data= LFDietStatins, method="REML")
> LHDLnofu

# Provision of Food
> LTGProv<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1),
mods=Provision, data= LFDietStatins, method="REML")
> LTGProv

> LCholProv <-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==2), mods=
Provision, data= LFDietStatins, method="REML")
> LCholProv

> LLDLProv<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==3), mods=
Provision, data= LFDietStatins, method="REML")
> LLDLProv

> LHDLProv <-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==4), mods=
Provision, data= LFDietStatins, method="REML")
> LHDLProv

# Intervention Level
> LTGInterlvl<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1),
mods=Interlvl, data= LFDietStatins, method="REML")
> LTGInterlvl

> LCholInterlvl <-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==2), mods=
Interlvl, data= LFDietStatins, method="REML")
> LCholInterlvl

> LLDLInterlvl<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==3), mods=
Interlvl, data= LFDietStatins, method="REML")
> LLDLInterlvl
```

```
> LHDLInterlvl <-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==4), mods=
Interlvl, data= LFDietStatins, method="REML")
> LHDLInterlvl

# Intervention Level, One-on-One
> LTGInterlvl1<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1),
mods=(Interlvl==1), data= LFDietStatins, method="REML")
> LTGInterlvl1

> LCholInterlvl1 <-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==2), mods=
(Interlvl==1), data= LFDietStatins, method="REML")
> LCholInterlvl1

> LLDLInterlvl1<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==3), mods=
(Interlvl==1), data= LFDietStatins, method="REML")
> LLDLInterlvl1

> LHDLInterlvl1 <-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==4), mods=
(Interlvl==1), data= LFDietStatins, method="REML")
> LHDLInterlvl1

# Intervention Sample Size
> LTGIntN<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1), mods=
n_post, data= LFDietStatins, method="REML")
> LTGIntN

> LCholIntN <-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==2), mods=
n_post, data= LFDietStatins, method="REML")
> LCholIntN

> LLDLIntN<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==3), mods=
n_post, data= LFDietStatins, method="REML")
> LLDLIntN

> LHDLIntN<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==4), mods=
n_post, data= LFDietStatins, method="REML")
> LHDLIntN

# Total Sample Size
> LTGN<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1), mods=Ntotal,
data= LFDietStatins, method="REML")
> LTGN

> LCholN <-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==2), mods=
Ntotal, data= LFDietStatins, method="REML")
> LCholN

> LLDLN<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==3), mods= Ntotal,
data= LFDietStatins, method="REML")
> LLDLN
```

```
> LHDLN<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==4), mods= Ntotal,
data= LFDietStatins, method="REML")
> LHDLN

# Participants Lost
> LTGlost<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1),
mods=Part_lost, data= LFDietStatins, method="REML")
> LTGlost

> LChollost <-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==2), mods=
Part_lost, data= LFDietStatins, method="REML")
> LChollost

> LLDLDlost<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==3), mods=
Part_lost, data= LFDietStatins, method="REML")
> LLDLDlost

> LHDLlost<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==4), mods=
Part_lost, data= LFDietStatins, method="REML")
> LHDLlost

# Experimental Conditions: Diet control plus 1 intervention
> LTGexp<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1),
mods=(Experiment==4), data= LFDietStatins, method="REML")
> LTGexp

> LCholexp <-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==2),
mods=(Experiment==4), data= LFDietStatins, method="REML")
> LCholexp

> LLDLexp<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==3),
mods=(Experiment==4), data= LFDietStatins, method="REML")
> LLDLexp

> LHDLexp<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==4),
mods=(Experiment==4), data= LFDietStatins, method="REML")
> LHDLexp

# Experimental Conditions: Diet control plus 3 interventions
> LTGexp2<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1),
mods=(Experiment==6), data= LFDietStatins, method="REML")
> LTGexp2

> LCholexp2 <-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==2),
mods=(Experiment==6), data= LFDietStatins, method="REML")
> LCholexp2

> LLDLexp2<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==3),
mods=(Experiment==6), data= LFDietStatins, method="REML")
> LLDLexp2
```

```
> LHDLexp2<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==4),
mods=(Experiment==6), data= LFDietStatins, method="REML")
> LHDLexp2


# Experimental Setting - Clinic
> LTGset2<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1),
mods=(exp_setting==2), data= LFDietStatins, method="REML")
> LTGset2

> LCholset2 <-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==2),
mods=(exp_setting==2), data= LFDietStatins, method="REML")
> LCholset2

> LLDLset2<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==3),
mods=(exp_setting==2), data= LFDietStatins, method="REML")
> LLDLset2

> LHDLset2<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==4),
mods=(exp_setting==2), data= LFDietStatins, method="REML")
> LHDLset2

# Diet Adherence Monitored (yes)
> LTGMonitor<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1),
mods=(Monitor==1), data= LFDietStatins, method="REML")
> LTGMonitor

> LCholMonitor <-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==2),
mods=(Monitor==1), data= LFDietStatins, method="REML")
> LCholMonitor

> LLDLMonitor<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==3),
mods=(Monitor==1), data= LFDietStatins, method="REML")
> LLDLMonitor

> LHDLMonitor<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==4),
mods=(Monitor==1), data= LFDietStatins, method="REML")
> LHDLMonitor

# Weight Loss
> LTGwtloss<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1), mods=(
WtGainLoss ==1), data= LFDietStatins, method="REML")
> LTGwtloss

> LCholwtloss <-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==2),
mods=(WtGainLoss==1), data= LFDietStatins, method="REML")
> LCholwtloss

> LLDLwtloss<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==3),
mods=(WtGainLoss==1), data= LFDietStatins, method="REML")
```

```
> LLDLwtloss

> LHDLwtloss<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==4),
mods=(WtGainLoss==1), data= LFDietStatins, method="REML")
> LHDLwtloss

# Weight Maintenance
> LTGwtmain<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1),
mods=(WtGainLoss==3), data= LFDietStatins, method="REML")
> LTGwtmain

> LCholwtmain <-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==2),
mods=(WtGainLoss==3), data= LFDietStatins, method="REML")
> LCholwtmain

> LLDLwtmain<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==3),
mods=(WtGainLoss==3), data= LFDietStatins, method="REML")
> LLDLwtmain

> LHDLwtmain<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==4),
mods=(WtGainLoss==3), data= LFDietStatins, method="REML")
> LHDLwtmain

# Weight Change Not Reported
> LTGwtNR<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1), mods=(
WtGainLoss ==4), data= LFDietStatins, method="REML")
> LTGwtNR

> LCholwtNR <-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==2), mods=(
WtGainLoss ==4), data= LFDietStatins, method="REML")
> LCholwtNR

> LLDLwtNR<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==3), mods=(
WtGainLoss ==4), data= LFDietStatins, method="REML")
> LLDLwtNR

> LHDLwtNR<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==4),
mods=(WtGainLoss==4), data= LFDietStatins, method="REML")
> LHDLwtNR

#Publication Year
> LTGYear<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1), mods=Year,
data= LFDietStatins, method="REML")
> LTGYear

> LCholYear <-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==2),
mods=Year, data= LFDietStatins, method="REML")
> LCholYear

> LLDLYear<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==3),
mods=Year, data= LFDietStatins, method="REML")
```

```
> LLDLYear

> LHDLYear<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==4),
mods=Year, data= LFDietStatins, method="REML")
> LHDLYear

#Funding Source - Government
> LTGfund<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1),
mods=(Funding==1), data= LFDietStatins, method="REML")
> LTGfund

> LCholfund <-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==2),
mod=(Funding==1), data= LFDietStatins, method="REML")
> LCholfund

> LLDLfund<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==3),
mods=(Funding==1), data= LFDietStatins, method="REML")
> LLDLfund

> LHDLfund<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==4),
mods=(Funding==1), data= LFDietStatins, method="REML")
> LHDLfund

#Funding Source – Private Funder
> LTGfund2<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1),
mods=(Funding==3), data= LFDietStatins, method="REML")
> LTGfund2

> LCholfund2 <-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==2),
mod=(Funding==3), data= LFDietStatins, method="REML")
> LCholfund2

> LLDLfund2<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==3),
mods=(Funding==3), data= LFDietStatins, method="REML")
> LLDLfund2

> LHDLfund2<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==4),
mods=(Funding==3), data= LFDietStatins, method="REML")
> LHDLfund2

#Number of Intervention Groups
> LTGnointgrp<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1),
mods=NoIntGrps, data= LFDietStatins, method="REML")
> LTGnointgrp

> LCholnointgrp <-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==2), mod=
NoIntGrps,  data= LFDietStatins, method="REML")
> LCholnointgrp

> LLDLnointgrp<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==3), mods=
NoIntGrps,  data= LFDietStatins, method="REML")
```

```
> LLDLnointgrp

> LHDLnointgrp<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==4), mods=
NoIntGrps,  data= LFDietStatins, method="REML")
> LHDLnointgrp

#Proportion of Subjects with Cardiovascular Disease
> LTGcvdprop<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1),
mods=CVDProp, data= LFDietStatins, method="REML")
> LTGcvdprop

> LCholcvdprop <-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==2), mod=
CVDProp,  data= LFDietStatins, method="REML")
> LCholcvdprop

> LLDLcvdprop<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==3), mods=
CVDProp,  data= LFDietStatins, method="REML")
> LLDLcvdprop

> LHDLcvdprop<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==4), mods=
CVDProp,  data= LFDietStatins, method="REML")
> LHDLcvdprop

#Number of Subjects with Cardiovascular Disease
> LTGcvdno<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1),
mods=CVDNo, data= LFDietStatins, method="REML")
> LTGcvdno

> LCholcvdno <-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==2), mod=
CVDNo,  data= LFDietStatins, method="REML")
> LCholcvdno

> LLDLcvdno<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==3), mods=
CVDNo,  data= LFDietStatins, method="REML")
> LLDLcvdno

> LHDLcvdno<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==4), mods=
CVDNo,  data= LFDietStatins, method="REML")
> LHDLcvdno

# Subjects Taking Oral Contraceptives or on Hormone Replacement Therapy
> LTGcvdprop<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1),
mods=OC_HRT, data= LFDietStatins, method="REML")
> LTGcvdprop

> LCholcvdprop <-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==2), mod=
OC_HRT,  data= LFDietStatins, method="REML")
> LCholcvdprop

> LLDLcvdprop<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==3), mods=
OC_HRT,  data= LFDietStatins, method="REML")
```

```
> LLDLcvdprop

> LHDLcvdprop<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==4), mods=
OC_HRT,  data= LFDietStatins, method="REML")
> LHDLcvdprop

# Recommended Sodium Intake
> LTGNa<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1), mods=
Sodium, data= LFDietStatins, method="REML")
> LTGNa

> LCholNa <-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==2), mod=
Sodium,  data= LFDietStatins, method="REML")
> LCholNa

> LLDLNa<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==3), mods=
Sodium,  data= LFDietStatins, method="REML")
> LLDLNa

> LHDLNa<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==4), mods=
Sodium,  data= LFDietStatins, method="REML")
> LHDLNa

# Recommended Cholesterol Intake
> LTGchol<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1), mods=
Cholesterol, data= LFDietStatins, method="REML")
> LTGchol

> LCholchol <-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==2), mod=
Cholesterol,  data= LFDietStatins, method="REML")
> LCholchol

> LLDLchol<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==3),
mods=Cholesterol,  data= LFDietStatins, method="REML")
> LLDLchol

> LHDLchol<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==4), mods=
Cholesterol,  data= LFDietStatins, method="REML")
> LHDLchol

# Recommended Fiber Intake
> LTGfiber<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1), mods= Fiber,
data= LFDietStatins, method="REML")
> LTGfiber

> LCholfiber <-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==2), mod=
Fiber,  data= LFDietStatins, method="REML")
> LCholfiber

> LLDLfiber<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==3), mods=
Fiber,  data= LFDietStatins, method="REML")
```

```
> LLDLfiber

> LHDLfiber<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==4), mods=
Fiber,  data= LFDietStatins, method="REML")
> LHDLfiber

# Reported Macronutrient Distribution
> LTGmacro<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1), mods=
MacroDis, data= LFDietStatins, method="REML")
> LTGmacro

> LCholmacro <-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==2), mod=
MacroDis,  data= LFDietStatins, method="REML")
> LCholmacro

> LLDLmacro<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==3), mods=
MacroDis,  data= LFDietStatins, method="REML")
> LLDLmacro

> LHDLmacro<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==4), mods=
MacroDis,  data= LFDietStatins, method="REML")
> LHDLmacro

#No Reported Macronutrient Distribution
> LTGmacro1<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1), mods=
(MacroDis==0), data= LFDietStatins, method="REML")

> LCholmacro1 <-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==2), mod=
(MacroDis==0),  data= LFDietStatins, method="REML")

> LLDLmacro1<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==3),
mods=(MacroDis==0),  data= LFDietStatins, method="REML")

> LHDLmacro1<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==4),
mods=(MacroDis==0),  data= LFDietStatins, method="REML")

#Min Max for Statin Dosage
> maxdose = 80 -LFDietStatins$Dose
> maxdose

> mindose = LFDietStatins$Dose - 5
> mindose

> LTGdosemax<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1),
mods=maxdose, data=LFDietStatins, method="REML", slab= paste(Reference,
Dose, sep =","))
> LTGdosemax

> LTGdosemin<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1),
mods=mindose, data=LFDietStatins, method="REML", slab= paste(Reference,
Dose, sep =","))
```

```
> LTGdosemin

> LCholdosemax<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==2), mods=
maxdose, data=LFDietStatins, method="REML", slab= paste(Reference, Dose,
sep =","))
> LCholDosemax

> LCholdosemin<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==2),
mods=mindose, data=LFDietStatins, method="REML", slab= paste(Reference,
Dose, sep =","))
> LCholdosemin

> LLDLdosemax<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==3), mods=
maxdose, data=LFDietStatins, method="REML", slab= paste(Reference, Dose,
sep =","))
> LLDLdosemax

> LLDLdosemin<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==3),
mods=mindose, data=LFDietStatins, method="REML", slab= paste(Reference,
Dose, sep =","))
> LLDLdosemin

> LHDLdosemax<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==4), mods=
maxdose, data=LFDietStatins, method="REML", slab= paste(Reference, Dose,
sep =","))
> LHDLdosemax

> LHDLdosemin<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==4),
mods=mindose, data=LFDietStatins, method="REML", slab= paste(Reference,
Dose, sep =","))
> LHDLdosemin

#Min Max for Hypertension
> lmaxHTN = .72 -LFDietStatins$HTN
> lmaxHTN

> lminHTN=LFDietStatins$HTN - 0.215
> lminHTN

> LTGHTNmax<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1),
mods=lmaxHTN, data=LFDietStatins, method="REML", slab= paste(Reference,
HTN, sep =","))
> LTGHTNmax

> LTGHTNmin<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1),
mods=lminHTN, data=LFDietStatins, method="REML", slab= paste(Reference,
HTN, sep =","))
> LTGHTNmin
```

```
> LCholHTNmax<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==2),
mods=lmaxHTN, data=LFDietStatins, method="REML", slab= paste(Reference,
HTN, sep =","))
> LCholHTNmax

> LCholHTNmin<-rma(d.ex.,var_d.ex.,subset=(Diet==1 & Outcome==2),
mods=lminHTN, data=LFDietStatins, method="REML", slab= paste(Reference,
HTN, sep =","))
> LCholHTNmin

> LLDLHTNmax<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==3),
mods=lmaxHTN, data=LFDietStatins, method="REML", slab= paste(Reference,
HTN, sep =","))
> LLDLHTNmax

> LLDLHTNmin<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==3),
mods=lminHTN, data=LFDietStatins, method="REML", slab= paste(Reference,
HTN, sep =","))
> LLDLHTNmin

> LHDLHTNmax<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==4),
mods=lmaxHTN, data=LFDietStatins, method="REML", slab= paste(Reference,
HTN, sep =","))
> LHDLHTNmax

> LHDLHTNmin<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==4),
mods=lminHTN, data=LFDietStatins, method="REML", slab= paste(Reference,
HTN, sep =","))
> LHDLHTNmin

#Min Max for Females
>lmaxFemale = 1 - LFDietStatins$Female
> lmaxFemale

> lminFemale = LFDietStatins$Female - 0.0
> lminFemale

> LTGFemmax<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1), mods=
lmaxFemale, data=LFDietStatins, method="REML", slab= paste(Reference,
Female, sep =","))
> LTGFemmax

> LTGFemmin<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1),
mods=lminFemale, data=LFDietStatins, method="REML", slab=
paste(Reference, Female, sep =","))
> LTGFemmin

> LCholFemmax<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==2), mods=
lmaxFemale, data=LFDietStatins, method="REML", slab= paste(Reference,
Female, sep =","))
> LCholFemmax
```

```
> LCholFemmin<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==2),
mods=lminFemale, data=LFDietStatins, method="REML", slab=
paste(Reference, Female, sep =","))
> LCholFemmin

> LDLFemmax<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==3), mods=
lmaxFemale, data=LFDietStatins, method="REML", slab= paste(Reference,
Female, sep =","))
> LDLFemmax

> LDLFemmin<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==3),
mods=lminFemale, data=LFDietStatins, method="REML", slab=
paste(Reference, Female, sep =","))
> LDLFemmin

> LHDLFemmax<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==4), mods=
lmaxFemale, data=LFDietStatins, method="REML", slab= paste(Reference,
Female, sep =","))
> LHDLFemmax

> LHDLFemmin<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==4),
mods=lminFemale, data=LFDietStatins, method="REML", slab=
paste(Reference, Female, sep =","))
> LHDLFemmin

#Min Max for Length of Intervention
> lmaxWeeks = 208-LFDietStatins$Weeks
> lmaxWeeks

> lminWeeks=LFDietStatins$Weeks - 3
> lminWeeks

> LTGWksmax<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1),
mods=lmaxWeeks, data=LFDietStatins, method="REML", slab=
paste(Reference, Weeks, sep =","))
> LTGWksmax

> LTGWksmin<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1),
mods=lminWeeks, data=LFDietStatins, method="REML", slab= paste(Reference,
Weeks, sep =","))
> LTGWksmin

> LCholWksmax<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==2), mods=
lmaxWeeks, data=LFDietStatins, method="REML", slab= paste(Reference,
Weeks, sep =","))
> LCholWksmax

> LCholWksmin<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==2),
mods=lminWeeks, data=LFDietStatins, method="REML", slab= paste(Reference,
Weeks, sep =","))
```

```
> LCholWksmin

> LLDLWksmax<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==3), mods=
lmaxWeeks, data=LFDietStatins, method="REML", slab= paste(Reference,
Weeks, sep =","))
> LLDLWksmax

> LLDLWksmin<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==3),
mods=lminWeeks, data=LFDietStatins, method="REML", slab= paste(Reference,
Weeks, sep =","))
> LLDLWksmin

> LHDLWksmax<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==4), mods=
lmaxWeeks, data=LFDietStatins, method="REML", slab= paste(Reference,
Weeks, sep =","))
> LHDLWksmax

> LHDLWksmin<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==4),
mods=lminWeeks, data=LFDietStatins, method="REML", slab= paste(Reference,
Weeks, sep =","))
> LHDLWksmin

#Min Max for Smokers
> lmaxSmoke = 0.50-LFDietStatins$Smoke
> lmaxSmoke

> lminSmoke=LFDietStatins$Smoke - 0
> lminSmoke

> LTGSmokemax<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1),
mods=lmaxSmoke, data=LFDietStatins, method="REML", slab=
paste(Reference, Smoke, sep =","))
> LTGSmokemax

> LTGSmokemin<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1),
mods=lminSmoke, data=LFDietStatins, method="REML", slab= paste(Reference,
Smoke, sep =","))
> MTGSmokemin

> LCholSmokemax<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==2),
mods=lmaxSmoke, data=LFDietStatins, method="REML", slab=
paste(Reference, Smoke, sep =","))
> LCholSmokemax

> LCholSmokemin<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==2),
mods=lminSmoke, data=LFDietStatins, method="REML", slab= paste(Reference,
Smoke, sep =","))
> LCholSmokemin
```

```
> LLDLSmokemax<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==3),
mods= lmaxSmoke, data=LFDietStatins, method="REML", slab=
paste(Reference, Smoke, sep =","))
> LLDLSmokemax

> LLDLSmokemin<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==3),
mods=lminSmoke, data=LFDietStatins, method="REML", slab= paste(Reference,
Smoke, sep =","))
> LLDLSmokemin

> LHDLSmokemax<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==4),
mods= lmaxSmoke, data=LFDietStatins, method="REML", slab=
paste(Reference, Smoke, sep =","))
> LHDLSmokemax

> LHDLSmokemin<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==4),
mods=lminSmoke, data=LFDietStatins, method="REML", slab= paste(Reference,
Smoke, sep =","))
> LHDLSmokemin

#Min Max for Fat Intake
> lmaxfat = .30 -LFDietStatins$Fat
> lmaxfat

> lminfat=LFDietStatins$Fat - .17
> lminfat

> LTGfatmax<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1), mods=
lmaxfat, data=LFDietStatins, method="REML", slab= paste(Reference, Fat, sep
=","))
> LTGfatmax

> LTGfatmin<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1), mods=
lminfat, data=LFDietStatins, method="REML", slab= paste(Reference, Fat, sep
=","))
> LTGfatmin

> LCholfatmax<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==2), mods=
lmaxfat, data=LFDietStatins, method="REML", slab= paste(Reference, Fat, sep
=","))
> LCholfatmax

> LCholfatmin<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==2), mods=
lminfat, data=LFDietStatins, method="REML", slab= paste(Reference, Fat, sep
=","))
> LCholfatmin

> LLDLfatmax<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==3), mods=
lmaxfat, data=LFDietStatins, method="REML", slab= paste(Reference, Fat, sep
=","))
> LLDLfatmax
```

```
> LLDLfatmin<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==3),
mods=lminfat, data=LFDietStatins, method="REML", slab= paste(Reference, Fat,
sep =","))
> LLDLfatmin

> LHDLfatmax<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==4), mods=
lmaxfat, data=LFDietStatins, method="REML", slab= paste(Reference, Fat, sep
=","))
> LHDLfatmax

> LHDLfatmin<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==4),
mods=lminfat, data=LFDietStatins, method="REML", slab= paste(Reference, Fat,
sep =","))
> LHDLfatmin

#Min Max for Carbohydrate Intake
> lmaxcarb = .67 -LFDietStatins$Carbs
> lmaxcarb

> lmincarb=LFDietStatins$Carbs - .421
> lmincarb
> LTGcarbmax<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1), mods=
lmaxcarb, data=LFDietStatins, method="REML", slab= paste(Reference, Carbs,
sep =","))
> LTGcarbmax

> LTGcarbmin<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1), mods=
lmincarb, data=LFDietStatins, method="REML", slab= paste(Reference, Carbs,
sep =","))
> LTGcarbmin

> LCholcarbmax<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==2), mods=
lmaxcarb, data=LFDietStatins, method="REML", slab= paste(Reference, Carbs,
sep =","))
> LCholcarbmax

> LCholcarbmin<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==2), mods=
lmincarb, data=LFDietStatins, method="REML", slab= paste(Reference, Carbs,
sep =","))
> LCholcarbmin

> LLDLcarbmax<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==3), mods=
lmaxcarb, data=LFDietStatins, method="REML", slab= paste(Reference, Carbs,
sep =","))
> LLDLcarbmax

> LLDLcarbmin<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==3),
mods=lmincarb, data=LFDietStatins, method="REML", slab= paste(Reference,
Carbs, sep =","))
> LLDLcarbmin
```

```
> LHDLcarbmax<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==4), mods=
lmaxcarb, data=LFDietStatins, method="REML", slab= paste(Reference, Carbs,
sep =","))
> LHDLcarbmax

> LHDLcarbmin<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==4), mods=
lmincarb, data=LFDietStatins, method="REML", slab= paste(Reference, Carbs,
sep =","))
> LHDLcarbmin

#Min Max for Protein Intake
> lmaxpro = .21 -LFDietStatins$Protein
> lmaxpro

> lminpro=LFDietStatins$Protein - .15
> lminpro

> LTGpromax<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1), mods=
lmaxpro, data=LFDietStatins, method="REML", slab= paste(Reference, Protein,
sep =","))
> LTGpromax

> LTGpromin<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1),
mods=lminpro, data=LFDietStatins, method="REML", slab= paste(Reference,
Protein, sep =","))
> LTGpromin

> LCholpromax<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==2), mods=
lmaxpro, data=LFDietStatins, method="REML", slab= paste(Reference, Protein,
sep =","))
> LCholpromax

> LCholpromin<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==2),
mods=lminpro, data=LFDietStatins, method="REML", slab= paste(Reference,
Protein, sep =","))
> LCholpromin

> LLDLpromax<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==3), mods=
lmaxpro, data=LFDietStatins, method="REML", slab= paste(Reference, Protein,
sep =","))
> LLDLpromax

> LLDLpromin<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==3),
mods=lminpro, data=LFDietStatins, method="REML", slab= paste(Reference,
Protein, sep =","))
> LLDLpromin

> LHDLpromax<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==4), mods=
lmaxpro, data=LFDietStatins, method="REML", slab= paste(Reference, Protein,
sep =","))
```

```
> LHDLpromax

> LHDLpromin<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==4),
mods=lminpro, data=LFDietStatins, method="REML", slab= paste(Reference,
Protein, sep =","))
> LHDLpromin

#Min Max for Intervention Group Size
> lintgrpmax = 753 -LFDietStatins$n_post
> lintgrpmax

> lintgrpmin =LFDietStatins$n_post - 12
> lintgrpmin

> LTGintgrpmax<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1), mods=
lintgrpmax, data=LFDietStatins, method="REML", slab= paste(Reference,
n_post, sep =","))
> LTGintgrpmax

> LTGintgrpmin<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1), mods=
lintgrpmin, data=LFDietStatins, method="REML", slab= paste(Reference, n_post,
sep =","))
> LTGintgrpmin

> LCholintgrpmax<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==2), mods=
lintgrpmax, data=LFDietStatins, method="REML", slab= paste(Reference,
n_post, sep =","))
> LCholintgrpmax

> LCholintgrpmin<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==2), mods=
lintgrpmin, data=LFDietStatins, method="REML", slab= paste(Reference, n_post,
sep =","))
> LCholintgrpmin

> LLDLintgrpmax<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==3), mods=
lintgrpmax, data=LFDietStatins, method="REML", slab= paste(Reference,
n_post, sep =","))
> LLDLintgrpmax

> LLDLintgrpmin<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==3),
mods=lintgrpmin, data=LFDietStatins, method="REML", slab= paste(Reference,
n_post, sep =","))
> LLDLintgrpmin

> LHDLintgrpmax<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==4), mods=
lintgrpmax, data=LFDietStatins, method="REML", slab= paste(Reference,
n_post, sep =","))
> LHDLintgrpmax
```

```
> LHDLintgrpmin<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==4), mods=
lintgrpmin, data=LFDietStatins, method="REML", slab= paste(Reference, n_post,
sep =","))
> LHDLintgrpmin

#Min Max for Total Sample Size
> lNmax = 3390 -LFDietStatins$Ntotal
> lNmax

> lNmin =LFDietStatins$Ntotal - 19
> lNmin

> LTGNmax<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1), mods=
lNmax, data=LFDietStatins, method="REML", slab= paste(Reference, Ntotal, sep
=","))
> LTGNmax

> LTGNmin<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1), mods=
lNmin, data=LFDietStatins, method="REML", slab= paste(Reference, Ntotal, sep
=","))
> LTGNmin

> LCholNmax<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==2), mods=
lNmax, data=LFDietStatins, method="REML", slab= paste(Reference, Ntotal, sep
=","))
> LCholNmax

> LCholNmin<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==2), mods=
lNmin, data=LFDietStatins, method="REML", slab= paste(Reference, Ntotal, sep
=","))
> LCholNmin

> LLDLNmax<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==3), mods=
lNmax, data=LFDietStatins, method="REML", slab= paste(Reference, Ntotal, sep
=","))
> LLDLNmax

> LLDLNmin<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==3),
mods=lNmin, data=LFDietStatins, method="REML", slab= paste(Reference,
Ntotal, sep =","))
> LLDLNmin

> LHDLNmax<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==4), mods=
lNmax, data=LFDietStatins, method="REML", slab= paste(Reference, Ntotal, sep
=","))
> LHDLNmax

> LHDLNmin<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==4), mods=
lNmin, data=LFDietStatins, method="REML", slab= paste(Reference, Ntotal, sep
=","))
> LHDLNmin
```

```
#Min Max for Number of Intervention Groups
>lmaxintgrp = 5 - LFDietStatins$NoIntGrps
> lmaxintgrp

> lminintgrp = LFDietStatins$NoIntGrps - 1
> lminintgrp

> LTGintgrp1max<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1), mods=
lmaxintgrp, data=LFDietStatins, method="REML", slab= paste(Reference,
NoIntGrps, sep =","))
> LTGintgrp1max

> LTGintgrp1min<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1), mods=
lminintgrp, data=LFDietStatins, method="REML", slab= paste(Reference,
NoIntGrps, sep =","))
> LTGintgrp1min

> LCholintgrp1max<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==2),
mods= lmaxintgrp, data=LFDietStatins, method="REML", slab= paste(Reference,
NoIntGrps, sep =","))
> LCholintgrp1max

> LCholintgrp1min<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==2),
mods= lminintgrp, data=LFDietStatins, method="REML", slab= paste(Reference,
NoIntGrps, sep =","))
> LCholintgrp1min

> LDLintgrp1max<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==3), mods=
lmaxintgrp, data=LFDietStatins, method="REML", slab= paste(Reference,
NoIntGrps, sep =","))
> LDLintgrp1max

> LDLintgrp1min<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==3), mods=
lminintgrp, data=LFDietStatins, method="REML", slab= paste(Reference,
NoIntGrps, sep =","))
> LDLintgrp1min

> LHDLintgrp1max<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==4),
mods= lmaxintgrp, data=LFDietStatins, method="REML", slab= paste(Reference,
NoIntGrps, sep =","))
> LHDLintgrp1max

> LHDLintgrp1min<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==4),
mods= lminintgrp, data=LFDietStatins, method="REML", slab= paste(Reference,
NoIntGrps, sep =","))
> LHDLintgrp1min

#Min Max for Number of Subjects with Cardiovascular Disease
>lmaxcvd = 113 - LFDietStatins$CVDNo
> lmaxcvd
```

```
> lmincvd = LFDietStatins$CVDNo - 5
> lmincvd

> LTGcvdmax<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1), mods=
lmaxcvd, data=LFDietStatins, method="REML", slab= paste(Reference, CVDNo,
sep =","))
> LTGcvdmax

> LTGcvdmin<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1), mods=
lmincvd, data=LFDietStatins, method="REML", slab= paste(Reference, CVDNo,
sep =","))
> LTGcvdmin

> LCholcvdmax<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==2), mods=
lmaxcvd, data=LFDietStatins, method="REML", slab= paste(Reference, CVDNo,
sep =","))
> LCholcvdmax

> LCholcvdmin<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==2), mods=
lmincvd, data=LFDietStatins, method="REML", slab= paste(Reference, CVDNo,
sep =","))
> LCholcvdmin

> LDLcvdmax<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==3), mods=
lmaxcvd, data=LFDietStatins, method="REML", slab= paste(Reference, CVDNo,
sep =","))
> LDLcvdmax

> LDLcvdmin<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==3), mods=
lmincvd, data=LFDietStatins, method="REML", slab= paste(Reference, CVDNo,
sep =","))
> LDLcvdmin

> LHDLcvdmax<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==4), mods=
lmaxcvd, data=LFDietStatins, method="REML", slab= paste(Reference, CVDNo,
sep =","))
> LHDLcvdmax

> LHDLcvdmin<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==4), mods=
lmincvd, data=LFDietStatins, method="REML", slab= paste(Reference, CVDNo,
sep =","))
> LHDLcvdmin

#Min Max for Cholesterol Intake
>lmaxchol = 300 - LFDietStatins$Cholesterol
> lmaxchol

> lminchol = LFDietStatins$Cholesterol - 31
> lminchol
```

```
> LTGcholmax<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1), mods=
lmaxchol, data=LFDietStatins, method="REML", slab= paste(Reference,
Cholesterol, sep =","))
> LTGcholmax

> LTGcholmin<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1), mods=
lminchol, data=LFDietStatins, method="REML", slab= paste(Reference,
Cholesterol, sep =","))
> LTGcholmin

> LCholcholmax<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==2), mods=
lmaxchol, data=LFDietStatins, method="REML", slab= paste(Reference,
Cholesterol, sep =","))
> LCholcholmax

> LCholcholmin<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==2), mods=
lminchol, data=LFDietStatins, method="REML", slab= paste(Reference,
Cholesterol, sep =","))
> LCholcholmin

> LDLcholmax<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==3), mods=
lmaxchol, data=LFDietStatins, method="REML", slab= paste(Reference,
Cholesterol, sep =","))
> LDLcholmax

> LDLcholmin<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==3), mods=
lminchol, data=LFDietStatins, method="REML", slab= paste(Reference,
Cholesterol, sep =","))
> LDLcholmin

> LHDLcholmax<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==4), mods=
lmaxchol, data=LFDietStatins, method="REML", slab= paste(Reference,
Cholesterol, sep =","))
> LHDLcholmax

> LHDLcholmin<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==4), mods=
lminchol, data=LFDietStatins, method="REML", slab= paste(Reference,
Cholesterol, sep =","))
> LHDLcholmin

#Provision of Food
> LTGProv1<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1),
mods=(Provision==1), data= LFDietStatins, method="REML",
slab=paste(Reference, Provision, sep “,”))
> LTGProv1

> LCholProv1 <-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==2),
mods=(Provision==1), data= LFDietStatins, method="REML",
slab=paste(Reference, Provision, sep “,”))
> LCholProv1
```

```
> LLDLProv1<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==3),
mods=(Provision==1), data= LFDietStatins, method="REML",
slab=paste(Reference, Provision, sep “,”))
> LLDLProv1

> LHDLProv1 <-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==4),
mods=(Provision==1), data= LFDietStatins, method="REML",
slab=paste(Reference, Provision, sep “,”))
> LHDLProv1

#No Provision of Food
> LTGProv0<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1),
mods=(Provision==0), data= LFDietStatins, method="REML"
slab=paste(Reference, Provision, sep “,”))
> LTGProv0

> LCholProv0 <-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==2),
mods=(Provision==0), data= LFDietStatins, method="REML"
slab=paste(Reference, Provision, sep “,”))
> LCholProv0

> LLDLProv0<-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==3),
mods=(Provision==0), data= LFDietStatins, method="REML",
slab=paste(Reference, Provision, sep “,”))
> LLDLProv0

> LHDLProv0 <-rma(d.ex.,var_d.ex.,subset=(Diet ==5 & Outcome==4),
mods=(Provision==0), data= LFDietStatins, method="REML",
slab=paste(Reference, Provision, sep “,”))
> LHDLProv0
```

Meta-Regression Plots

```
#Length of Intervention
LCholwks<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==2), mods=Weeks,
data=LFDietStatins, method="REML", slab= paste(Reference, Weeks, sep =","))
LCholwkspred <- predict(LCholwks, newmods=cbind(seq(0,104,.1)))
wi = LFDietStatins$w_d.ex.
min= min(wi,na.rm=TRUE)
max= max(wi,na.rm=TRUE)
size= 1.0 + 0.5 * (wi - min)/(max - min)
dietTChol= subset(LFDietStatins,Diet==5 & Outcome==2) #Here we have to
create the
subsample we are working on to just plot the observed values of that below
plot(dietTChol$Weeks,dietTChol$d.ex.,pch= 20, col="black", bg = "black",
cex=size,
xlab = "Number of Weeks", #Plotting here the observed values of the subsample
ylab = "Total Cholesterol Effect Size (d)", xlim=c(0, 104), ylim=c(-3, 0.5))
lines(seq(0,104,.1), LCholwkspred$pred, col = "dark red")
lines(seq(0,104,.1), LCholwkspred$ci.lb, lty = "dashed", col="dark red")
lines(seq(0,104,.1), LCholwkspred$ci.ub, lty = "dashed", col="dark red")
```

```
LCholwks<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==2), mods =
Weeks,
data=LFDietStatins, method="REML", slab= paste(Author, Year, sep =","))
LCholwkspred <- predict(LCholwks, newmods=cbind(seq(0,104,.1)))
LCholwks

LLDLwks<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==3), mods=Weeks,
data=LFDietStatins, method="REML", slab= paste(Reference, Weeks, sep =","))
LLDLwkspred <- predict(LLDLwks, newmods=cbind(seq(0,104,.1)))
wi = LFDietStatins$w_d.ex.
min= min(wi,na.rm=TRUE)
max= max(wi,na.rm=TRUE)
size= 1.0 + 0.5 * (wi - min)/(max - min)
dietLDL= subset(LFDietStatins,Diet==5 & Outcome==3)
plot(dietLDL$Weeks,dietLDL$d.ex.,pch= 20, col="black", bg = "black", cex=size,
xlab = "Number of Weeks", #Plotting here the observed values of the subsample
ylab = "LDL Cholesterol Effect Size (d)", xlim=c(0, 104), ylim=c(-3, 0.5))
lines(seq(0,104,.1), LLDLwkspred$pred, col = "dark red")
lines(seq(0,104,.1), LLDLwkspred$ci.lb, lty = "dashed", col="dark red")
lines(seq(0,104,.1), LLDLwkspred$ci.ub, lty = "dashed", col="dark red")
LLDLwks<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==3), mods =
Weeks,
data=LFDietStatins, method="REML", slab= paste(Reference, Year, sep =","))
LLDLwkspred <- predict(LLDLwks, newmods=cbind(seq(0,104,.1)))
LLDLwks

#Proportion of Females
LCholfem<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==2), mods=Female,
data=LFDietStatins, method="REML", slab= paste(Reference, Female, sep =","))
LCholfempred <- predict(LCholfem, newmods=cbind(seq(0,1.0,.1)))
wi = LFDietStatins$w_d.ex.
min= min(wi,na.rm=TRUE)
max= max(wi,na.rm=TRUE)
size= 1.0 + 0.5 * (wi - min)/(max - min)
dietChol= subset(LFDietStatins,Diet==5 & Outcome==2)
plot(dietChol$Female,dietChol$d.ex.,pch= 20, col="black", bg = "black",
cex=size,
xlab = "Proportion of Female", #Plotting here the observed values of the
subsample
ylab = "Total Cholesterol Effect Size (d)", xlim=c(0, 1.0), ylim=c(-3, 0.5))
lines(seq(0,1.0,.1), LCholfempred$pred, col = "dark red")
lines(seq(0,1.0,.1), LCholfempred$ci.lb, lty = "dashed", col="dark red")
lines(seq(0,1.0,.1), LCholfempred$ci.ub, lty = "dashed", col="dark red")
LCholfem<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==2), mods =
Female,
data=LFDietStatins, method="REML", slab= paste(Reference, Year, sep =","))
LCholfempred <- predict(LCholfem, newmods=cbind(seq(0,1.0,.1)))
LCholfem

LLDLfem<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==3), mods=Female,
data=LFDietStatins, method="REML", slab= paste(Reference, Female, sep =","))
```

```
LLDLfempred <- predict(LLDLfem, newmods=cbind(seq(0,1.0,.1)))
wi = LFDietStatins$w_d.ex.
min= min(wi,na.rm=TRUE)
max= max(wi,na.rm=TRUE)
size= 1.0 + 0.5 * (wi - min)/(max - min)
dietLDL= subset(LFDietStatins,Diet==5 & Outcome==3)
plot(dietLDL$Female,dietLDL$d.ex.,pch= 20, col="black", bg = "black", cex=size,
xlab = "Proportion of Female", #Plotting here the observed values of the
subsample
ylab = "LDL Cholesterol Effect Size (d)", xlim=c(0, 1.0), ylim=c(-3, 0.5))
lines(seq(0,1.0,.1), LLDLfempred$pred, col = "dark red")
lines(seq(0,1.0,.1), LLDLfempred$ci.lb, lty = "dashed", col="dark red")
lines(seq(0,1.0,.1), LLDLfempred$ci.ub, lty = "dashed", col="dark red")
LLDLfem<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==3), mods =
Female,
data=LFDietStatins, method="REML", slab= paste(Reference, Year, sep =","))
LLDLfempred <- predict(LLDLfem, newmods=cbind(seq(0,1.0,.1)))
LLDLfem

#Recommended Proportion of Fat Intake
LCholfat<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==2), mods=Fat,
data=LFDietStatins, method="REML", slab= paste(Reference, Fat, sep =","))
LCholfatpred <- predict(LCholfat, newmods=cbind(seq(0,1.0,.1)))
wi = LFDietStatins$w_d.ex.
min= min(wi,na.rm=TRUE)
max= max(wi,na.rm=TRUE)
size= 1.0 + 0.5 * (wi - min)/(max - min)
dietChol= subset(LFDietStatins,Diet==5 & Outcome==2)
plot(dietChol$Fat,dietChol$d.ex.,pch= 20, col="black", bg = "black", cex=size,
xlab = "Proportion of Fat Intake", #Plotting here the observed values of the
subsample
ylab = "Total Cholesterol Effect Size (d)", xlim=c(0.1, 0.35), ylim=c(-3.5, 0.5))
lines(seq(0,1.0,.1), LCholfatpred$pred, col = "dark red")
lines(seq(0,1.0,.1), LCholfatpred$ci.lb, lty = "dashed", col="dark red")
lines(seq(0,1.0,.1), LCholfatpred$ci.ub, lty = "dashed", col="dark red")
LCholfat<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==2), mods = Fat,
data=LFDietStatins, method="REML", slab= paste(Reference, Year, sep =","))
LCholfatpred <- predict(LCholfat, newmods=cbind(seq(0,1.0,.1)))
LCholfat

#Proportion of Carbohydrate Intake
LCholcarb<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==2), mods=Carbs,
data=LFDietStatins, method="REML", slab= paste(Reference, Carbs, sep =","))
LCholcarbpred <- predict(LCholcarb, newmods=cbind(seq(0,1.0,.1)))
wi = LFDietStatins$w_d.ex.
min= min(wi,na.rm=TRUE)
max= max(wi,na.rm=TRUE)
size= 1.0 + 0.5 * (wi - min)/(max - min)
dietChol= subset(LFDietStatins,Diet==5 & Outcome==2)
plot(dietChol$Carbs,dietChol$d.ex.,pch= 20, col="black", bg = "black", cex=size,
xlab = "Proportion of Carbohydrate Intake",
```

```
ylab = "Total Cholesterol Effect Size (d)", xlim=c(0.1, 0.7), ylim=c(-3, 0.5))
lines(seq(0,1.0,.1), LCholcarbpred$pred, col = "dark red")
lines(seq(0,1.0,.1), LCholcarbpred$ci.lb, lty = "dashed", col="dark red")
lines(seq(0,1.0,.1), LCholcarbpred$ci.ub, lty = "dashed", col="dark red")
LCholcarb<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==2), mods =
Carbs,
data=LFDietStatins, method="REML", slab= paste(Reference, Year, sep =","))
LCholcarbpred <- predict(LCholcarb, newmods=cbind(seq(0,1.0,.1)))
LCholcarb

LLDLcarb<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==3), mods=Carbs,
data=LFDietStatins, method="REML", slab= paste(Reference, Carbs, sep =","))
LLDLcarbpred <- predict(LLDLcarb, newmods=cbind(seq(0,1.0,.1)))
wi = LFDietStatins$w_d.ex.
min= min(wi,na.rm=TRUE)
max= max(wi,na.rm=TRUE)
size= 1.0 + 0.5 * (wi - min)/(max - min)
dietLDL= subset(LFDietStatins,Diet==5 & Outcome==3)
plot(dietLDL$Carbs,dietChol$d.ex.,pch= 20, col="black", bg = "black", cex=size,
xlab = "Proportion of Carbohydrate Intake",
ylab = "LDL Cholesterol Effect Size (d)", xlim=c(0.25, 0.7), ylim=c(-3, 0.5))
lines(seq(0,1.0,.1), LLDLcarbpred$pred, col = "dark red")
lines(seq(0,1.0,.1), LLDLcarbpred$ci.lb, lty = "dashed", col="dark red")
lines(seq(0,1.0,.1), LLDLcarbpred$ci.ub, lty = "dashed", col="dark red")
LLDLcarb<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==3), mods = Carbs,
data=LFDietStatins, method="REML", slab= paste(Reference, Year, sep =","))
LLDLcarbpred <- predict(LLDLcarb, newmods=cbind(seq(0,1.0,.1)))
LLDLcarb

#Recommended Proportion of Protein Intake
LHDLpro<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==4), mods=Protein,
data=LFDietStatins, method="REML", slab= paste(Reference, Protein, sep =","))
LHDLpropred <- predict(LHDLpro, newmods=cbind(seq(0,1.0,.1)))
wi = LFDietStatins$w_d.ex.
min= min(wi,na.rm=TRUE)
max= max(wi,na.rm=TRUE)
size= 1.0 + 0.5 * (wi - min)/(max - min)
dietHDL= subset(LFDietStatins,Diet==5 & Outcome==4)
plot(dietHDL$Protein,dietHDL$d.ex.,pch= 20, col="black", bg = "black", cex=size,
xlab = "Proportion of Protein Intake",
ylab = "HDL Cholesterol Effect Size (d)", xlim=c(0.10, 0.30), ylim=c(-1, 1.5))
lines(seq(0,1.0,.1), LHDLpropred$pred, col = "dark red")
lines(seq(0,1.0,.1), LHDLpropred$ci.lb, lty = "dashed", col="dark red")
lines(seq(0,1.0,.1), LHDLpropred$ci.ub, lty = "dashed", col="dark red")
LHDLcarb<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==4), mods =
Protein,
data=LFDietStatins, method="REML", slab= paste(Reference, Year, sep =","))
LHDLpropred <- predict(LHDLpro, newmods=cbind(seq(0,1.0,.1)))
LHDLpro

#Intervention Group Size
```

```
LTGint<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1), mods=n_post,
data=LFDietStatins, method="REML", slab= paste(Reference, n_post, sep =","))
LTGintpred <- predict(LTGint, newmods=cbind(seq(0,753,1)))
wi = LFDietStatins$w_d.ex.
min= min(wi,na.rm=TRUE)
max= max(wi,na.rm=TRUE)
size= 1.0 + 0.5 * (wi - min)/(max - min)
dietTG= subset(LFDietStatins,Diet==5 & Outcome==1)
plot(dietTG$n_post,dietTG$d.ex.,pch= 20, col="black", bg = "black", cex=size,
xlab = "Intervention Group Size",
ylab = "Triglycerides Effect Size (d)", xlim=c(0, 760), ylim=c(-3.5, 0.5))
lines(seq(0,753,1), LTGintpred$pred, col = "dark red")
lines(seq(0,753,1), LTGintpred$ci.lb, lty = "dashed", col="dark red")
lines(seq(0,753,1), LTGintpred$ci.ub, lty = "dashed", col="dark red")
LTGint<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==1), mods = n_post,
data=LFDietStatins, method="REML", slab= paste(Reference, Year, sep =","))
LTGintpred <- predict(LTGint, newmods=cbind(seq(0,753,.1)))
LTGint

LCholint<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==2), mods=n_post,
data=LFDietStatins, method="REML", slab= paste(Reference, n_post, sep =","))
LCholintpred <- predict(LCholint, newmods=cbind(seq(0,753,1)))
wi = LFDietStatins$w_d.ex.
min= min(wi,na.rm=TRUE)
max= max(wi,na.rm=TRUE)
size= 1.0 + 0.5 * (wi - min)/(max - min)
dietChol= subset(LFDietStatins,Diet==5 & Outcome==2)
plot(dietChol$n_post,dietChol$d.ex.,pch= 20, col="black", bg = "black", cex=size,
xlab = "Intervention Group Size",
ylab = "Total Cholesterol Effect Size (d)", xlim=c(0, 760), ylim=c(-3.5, 0.5))
lines(seq(0,753,1), LCholintpred$pred, col = "dark red")
lines(seq(0,753,1), LCholintpred$ci.lb, lty = "dashed", col="dark red")
lines(seq(0,753,1), LCholintpred$ci.ub, lty = "dashed", col="dark red")
LCholint<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==2), mods = n_post,
data=LFDietStatins, method="REML", slab= paste(Reference, Year, sep =","))
LCholintpred <- predict(LCholint, newmods=cbind(seq(0,753,1)))
LCholint

LLDLint<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==3), mods=n_post,
data=LFDietStatins, method="REML", slab= paste(Reference, n_post, sep =","))
LLDLintpred <- predict(LLDLint, newmods=cbind(seq(0,753,1)))
wi = LFDietStatins$w_d.ex.
min= min(wi,na.rm=TRUE)
max= max(wi,na.rm=TRUE)
size= 1.0 + 0.5 * (wi - min)/(max - min)
dietLDL= subset(LFDietStatins,Diet==5 & Outcome==3)
plot(dietLDL$n_post,dietLDL$d.ex.,pch= 20, col="black", bg = "black", cex=size,
xlab = "Intervention Group Size",
ylab = "LDL Cholesterol Effect Size (d)", xlim=c(0, 800), ylim=c(-3.5, 0.5))
lines(seq(0,753,1), LLDLintpred$pred, col = "dark red")
lines(seq(0,753,1), LLDLintpred$ci.lb, lty = "dashed", col="dark red")
```

```
lines(seq(0,753,1), LLDLintpred$ci.ub, lty = "dashed", col="dark red")
LLDLint<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==3), mods = n_post,
data=LFDietStatins, method="REML", slab= paste(Reference, Year, sep =","))
LLDLintpred <- predict(LLDLint, newmods=cbind(seq(0,753,1)))
LLDLint

LHDLint<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==4), mods=n_post,
data=LFDietStatins, method="REML", slab= paste(Reference, n_post, sep =","))
LHDLintpred <- predict(LHDLint, newmods=cbind(seq(0,753,1)))
wi = LFDietStatins$w_d.ex.
min= min(wi,na.rm=TRUE)
max= max(wi,na.rm=TRUE)
size= 1.0 + 0.5 * (wi - min)/(max - min)
dietHDL= subset(LFDietStatins,Diet==5 & Outcome==4)
plot(dietHDL$n_post,dietHDL$d.ex.,pch= 20, col="black", bg = "black", cex=size,
xlab = "Intervention Group Size",
ylab = "HDL Cholesterol Effect Size (d)", xlim=c(0, 800), ylim=c(-1, 1.5))
lines(seq(0,753,1), LHDLintpred$pred, col = "dark red")
lines(seq(0,753,1), LHDLintpred$ci.lb, lty = "dashed", col="dark red")
lines(seq(0,753,1), LHDLintpred$ci.ub, lty = "dashed", col="dark red")
LHDLint<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==4), mods = n_post,
data=LFDietStatins, method="REML", slab= paste(Reference, Year, sep =","))
LHDLintpred <- predict(LHDLint, newmods=cbind(seq(0,753,.1)))
LHDLint

#Number with Cardiovascular Disease
LCholcvd<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==2), mods=CVDNo,
data=LFDietStatins, method="REML", slab= paste(Reference, CVDNo, sep =","))
LCholcvdpred <- predict(LCholcvd, newmods=cbind(seq(0,113,.1)))
wi = LFDietStatins$w_d.ex.
min= min(wi,na.rm=TRUE)
max= max(wi,na.rm=TRUE)
size= 1.0 + 0.5 * (wi - min)/(max - min)
dietChol= subset(LFDietStatins,Diet==5 & Outcome==2)
plot(dietChol$CVDNo,dietChol$d.ex.,pch= 20, col="black", bg = "black",
cex=size,
xlab = "Number of Subjects with Cardiovascular Disease",
ylab = "Total Cholesterol Effect Size (d)", xlim=c(0, 115), ylim=c(-4, 0.5))
lines(seq(0,113,.1), LCholcvdpred$pred, col = "dark red")
lines(seq(0,113,.1), LCholcvdpred$ci.lb, lty = "dashed", col="dark red")
lines(seq(0,113,.1), LCholcvdpred$ci.ub, lty = "dashed", col="dark red")
LCholcvd<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==2), mods =
CVDNo,
data=LFDietStatins, method="REML", slab= paste(Reference, Year, sep =","))
LCholcvdpred <- predict(LCholcvd, newmods=cbind(seq(0,113,.1)))
LCholcvd

LLDLcvd<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==3), mods=CVDNo,
data=LFDietStatins, method="REML", slab= paste(Reference, CVDNo, sep =","))
LLDLcvdpred <- predict(LLDLint, newmods=cbind(seq(0,113,1)))
wi = LFDietStatins$w_d.ex.
```

```
min= min(wi,na.rm=TRUE)
max= max(wi,na.rm=TRUE)
size= 1.0 + 0.5 * (wi - min)/(max - min)
dietLDL= subset(LFDietStatins,Diet==5 & Outcome==3)
plot(dietLDL$CVDNo,dietLDL$d.ex.,pch= 20, col="black", bg = "black", cex=size,
xlab = "Number of Subjects with Cardiovascular Disease",
ylab = "LDL Cholesterol Effect Size (d)", xlim=c(0, 115), ylim=c(-4, 0.5))
lines(seq(0,113,.1), LLDLcvdpred$pred, col = "dark red")
lines(seq(0,113,.1), LLDLcvdpred$ci.lb, lty = "dashed", col="dark red")
lines(seq(0,113,.1), LLDLcvdpred$ci.ub, lty = "dashed", col="dark red")
LLDLcvd<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==3), mods =
CVDNo,
data=LFDietStatins, method="REML", slab= paste(Reference, Year, sep =","))
LLDLcvdpred <- predict(LLDLcvd, newmods=cbind(seq(0,1.0,.1)))
LLDLcvd

LHDLcvd<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==4), mods=CVDNo,
data=LFDietStatins, method="REML", slab= paste(Reference, CVDNo, sep =","))
LHDLcvdpred <- predict(LHDLcvd, newmods=cbind(seq(0,113,.1)))
wi = LFDietStatins$w_d.ex.
min= min(wi,na.rm=TRUE)
max= max(wi,na.rm=TRUE)
size= 1.0 + 0.5 * (wi - min)/(max - min)
dietHDL= subset(LFDietStatins,Diet==5 & Outcome==4)
plot(dietHDL$CVDNo,dietHDL$d.ex.,pch= 20, col="black", bg = "black",
cex=size,
xlab = "Number of Subjects with Cardiovascular Disease",
ylab = "HDL Cholesterol Effect Size (d)", xlim=c(0, 115), ylim=c(-1, 1.5))
lines(seq(0,113,.1), LHDLcvdpred$pred, col = "dark red")
lines(seq(0,113,.1), LHDLcvdpred$ci.lb, lty = "dashed", col="dark red")
lines(seq(0,113,.1), LHDLcvdpred$ci.ub, lty = "dashed", col="dark red")
LHDLcvd<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==4), mods =
CVDNo,
data=LFDietStatins, method="REML", slab= paste(Reference, Year, sep =","))
LHDLcvdpred <- predict(LHDLcvd, newmods=cbind(seq(0,1.0,.1)))
LHDLcvd

#Total Sample Size
LCholN<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==2), mods=Ntotal,
data=LFDietStatins, method="REML", slab= paste(Reference, Ntotal, sep =","))
LCholNpred <- predict(LCholN, newmods=cbind(seq(0,3390,1)))
wi = LFDietStatins$w_d.ex.
min= min(wi,na.rm=TRUE)
max= max(wi,na.rm=TRUE)
size= 1.0 + 0.5 * (wi - min)/(max - min)
dietChol= subset(LFDietStatins,Diet==5 & Outcome==2)
plot(dietChol$Ntotal,dietChol$d.ex.,pch= 20, col="black", bg = "black", cex=size,
xlab = "Sample Size",
ylab = "Total Cholesterol Effect Size (d)", xlim=c(0, 3400), ylim=c(-4, 0.5))
lines(seq(0,3390,1), LCholNpred$pred, col = "dark red")
lines(seq(0,3390,1), LCholNpred$ci.lb, lty = "dashed", col="dark red")
```

```
lines(seq(0,3390,1), LCholNpred$ci.ub, lty = "dashed", col="dark red")
LCholN<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==2), mods = Ntotal,
data=LFDietStatins, method="REML", slab= paste(Reference, Year, sep =","))
LCholNpred <- predict(LCholN, newmods=cbind(seq(0,3390,.1)))
LCholN

LLDLN<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==3), mods=Ntotal,
data=LFDietStatins, method="REML", slab= paste(Reference, Ntotal, sep =","))
LLDLNpred <- predict(LLDLN, newmods=cbind(seq(0,3390,1)))
wi = LFDietStatins$w_d.ex.
min= min(wi,na.rm=TRUE)
max= max(wi,na.rm=TRUE)
size= 1.0 + 0.5 * (wi - min)/(max - min)
dietLDL= subset(LFDietStatins,Diet==5 & Outcome==3)
plot(dietLDL$Ntotal,dietLDL$d.ex.,pch= 20, col="black", bg = "black", cex=size,
xlab = "Sample Size",
ylab = "LDL Cholesterol Effect Size (d)", xlim=c(0, 3400), ylim=c(-4, 0.5))
lines(seq(0,3390,1), LLDLNpred$pred, col = "dark red")
lines(seq(0,3390,1), LLDLNpred$ci.lb, lty = "dashed", col="dark red")
lines(seq(0,3390,1), LLDLNpred$ci.ub, lty = "dashed", col="dark red")
LLDLN<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==3), mods = Ntotal,
data=LFDietStatins, method="REML", slab= paste(Reference, Year, sep =","))
LLDLNpred <- predict(LLDLN, newmods=cbind(seq(0,3390,.1)))
LLDLN

LHDLN<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==4), mods=Ntotal,
data=LFDietStatins, method="REML", slab= paste(Reference, CVDNo, sep =","))
LHDLNpred <- predict(LHDLN, newmods=cbind(seq(0,3390,1)))
wi = LFDietStatins$w_d.ex.
min= min(wi,na.rm=TRUE)
max= max(wi,na.rm=TRUE)
size= 1.0 + 0.5 * (wi - min)/(max - min)
dietHDL= subset(LFDietStatins,Diet==5 & Outcome==4)
plot(dietHDL$Ntotal,dietHDL$d.ex.,pch= 20, col="black", bg = "black", cex=size,
xlab = "Sample Size",
ylab = "HDL Cholesterol Effect Size (d)", xlim=c(0, 3400), ylim=c(-1, 1.5))
lines(seq(0,3390,1), LHDLNpred$pred, col = "dark red")
lines(seq(0,3390,1), LHDLNpred$ci.lb, lty = "dashed", col="dark red")
lines(seq(0,3390,1), LHDLNpred$ci.ub, lty = "dashed", col="dark red")
LHDLN<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==4), mods = Ntotal,
data=LFDietStatins, method="REML", slab= paste(Reference, Year, sep =","))
LHDLNpred <- predict(LHDLN, newmods=cbind(seq(0,3390,.1)))
LHDLN

#Recommended Dietary Cholesterol Intake
LHDLchol<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==4),
mods=Cholesterol,
data=LFDietStatins, method="REML", slab= paste(Reference, Cholesterol, sep
=","))
LHDLcholpred <- predict(LHDLchol, newmods=cbind(seq(0,300,1)))
wi = LFDietStatins$w_d.ex.
```

```
min= min(wi,na.rm=TRUE)
max= max(wi,na.rm=TRUE)
size= 1.0 + 0.5 * (wi - min)/(max - min)
dietHDL= subset(LFDietStatins,Diet==5 & Outcome==4)
plot(dietHDL$Cholesterol,dietHDL$d.ex.,pch= 20, col="black", bg = "black",
cex=size,
xlab = "Dietary Cholesterol Intake (mg)",
ylab = "HDL Cholesterol Effect Size (d)", xlim=c(0, 300), ylim=c(-1, 1.5))
lines(seq(0,300,.1), LHDLcholpred$pred, col = "dark red")
lines(seq(0,300,.1), LHDLcholpred$ci.lb, lty = "dashed", col="dark red")
lines(seq(0,300,.1), LHDLcholpred$ci.ub, lty = "dashed", col="dark red")
LHDLchol<-rma(d.ex.,var_d.ex.,subset=(Diet==5 & Outcome==4), mods =
Cholesterol,
data=LFDietStatins, method="REML", slab= paste(Reference, Year, sep =","))
LHDLcholpred <- predict(LHDLchol, newmods=cbind(seq(0,300,.1)))
LHDLchol
```

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