BACKGROUND
• The overall safety and long-term benefits of intentional weight loss in older adults remains controversial
• Diet-induced weight loss in older adults improves physical and metabolic function in the short-term
• It is unknown whether these benefits persist over time

PURPOSE
• This study determined whether weight loss from a caloric restriction (CR) intervention earlier in life is advantageous or deleterious to the risk of developing frailty (using a calculated EMR-Based Frailty Index, eFI) 8.00 ± 2.28 years in the future

STUDY SAMPLE
• 968 older adults were identified who participated in one of five randomized, controlled weight loss trials from 2005 to 2014
• Of the 968, n=351 had sufficient data to calculate an eFI for analysis

METHODS AND DATA ANALYSIS
• The EPIC-based Frailty Index (eFI) is a deficit-accumulation model from a 2-year lookback period, incorporating 56 discrete elements into an eFI score: Fit (eFI ≤ 0.10), Pre-frail (0.10 < eFI ≤ 0.21), or Frail (eFI > 0.21)
• A logistic regression model was constructed to estimate the effect of caloric restriction on later incidence of frailty (eFI score > 0.21)

RESULTS
• Individuals who underwent caloric restriction are 8.89% more likely to be frail, as compared to individuals who did not undergo caloric restriction (p=0.07)
• The logit model correctly predicts 70.4% of the values, and the rest are misclassified

CONCLUSION
• Caloric Restriction in older adults may lead to a higher incidence of frailty later in life
• This does not necessarily indicate a more rapid decline in functional status
• Whether this is the result of a disproportionate weight regain (or rebound) of adipose tissue that predisposes to frailty remains to be studied

REFERENCES
1. Houston, D. Long-term function and health effects of intentional weight loss in obese elders. NIH Grant Number RO1 AG056418.