

Cost-Effectiveness of Weight Loss Prevention in Nursing Homes: A Controlled Trial
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Inadequate food and fluid intake is a common problem among nursing home (NH) residents and one that can lead to under-nutrition, dehydration, weight loss, hospitalization, and even death. The most common nutrition intervention for at-risk NH residents is oral liquid nutrition supplementation (ONS), although, there is limited controlled evidence of the efficacy of supplements in promoting weight gain in NH residents. Moreover, studies show that supplements are not provided consistent with orders and residents receive little to no staff assistance or encouragement to promote consumption in daily NH care practice. The result is that nutritionally at-risk NH residents with ONS orders receive few additional daily calories from supplements. Recent evidence suggests that offering residents a choice among a variety of foods and fluids multiple times per day between meals coupled with assistance and encouragement to promote consumption is effective in increasing total daily caloric intake and promoting weight gain. However, based on the research to date, we do not know if residents' prefer other foods and fluids instead of supplements or if it is the consistency of delivery, adequacy of assistance and/or the availability of choice that represent the critical intervention components. We also do not know which intervention, traditional sip-feed supplements or choice, is more cost-effective in increasing daily caloric intake and promoting weight gain among NH residents. The cost-effectiveness component is key to further evaluation studies because supplements represent a significant financial cost to NH facilities.

The proposed study will use a controlled, intervention design to determine the cost-effectiveness of ONS with an alternative nutrition intervention that offers residents a choice between supplements and other foods and fluids (i.e., snacks) between meals in a group of 200 residents across 4 NH sites. Residents with an order for supplementation will be included in this study and randomized into one of three groups: (1) usual care control; (2) oral liquid nutrition supplementation (ONS) intervention; or (3) choice intervention. The usual care control group will continue to receive standard NH care for supplement or snack delivery. Research staff will provide the same supplements used by the NH (group two) or a choice between supplements and other foods and fluids (group three) twice daily, five days per week, for 24 weeks and document the daily costs of intervention implementation when also providing a prompting protocol known to improve intake and enhance independence in eating. Based on extensive preliminary data, it is anticipated that both groups two and three will require significantly more staff time than usual care (group one). Thus, the labor costs of these interventions will be documented and compared to effectiveness measures. Effectiveness measures include the following resident outcomes: improvements in total daily caloric intake, weight, nutrition and hydration status and quality of life. These outcomes will be independently monitored for all three groups across 24-weeks by trained research staff using standardized, validated protocols.