standard recruitment methods, and high cost of RYGB. We assessed the feasibility of identifying, recruiting and randomizing a well-informed, population-based sample using a Shared Decision Making (SDM) approach. Based on prior research, we hypothesized a 100:1 ratio of contacted members to enrolled participants. **Methods:** Group Health members with T2DM and BMI of 30-40 kg/m² are identified from electronic databases. We use a phased process to carefully screen participants: Call 1 assesses interest in obesity treatment and invites participation in SDM, which includes reviewing a DVD decision aid and booklet on treatment for obesity and diabetes. Subsequently, a nurse conducts a 45 minute SDM call to determine preferences regarding treatment. People remaining undecided about treatment after SDM (at equipoise) are invited to participate in the RCT. Written informed consent is obtained and 40 participants will be randomized to RYGB or behavioral intervention. Participants are followed for 1 year. **Results:** Recruitment started May 2011 and is ongoing. As of November 2011, 1220 members have been mailed, and 84% contacted. Of these, 21% completed Call 1 and agreed to SDM. Among 130 (11%) who've completed SDM, 64% choose diet/exercise; 3% drug treatment, 21% choose surgery, and 12% undecided. Among those who remained at equipoise, 47 (4%) were interested in the RCT, and 20 (1.6%) have been randomized. The randomized cohort has a mean age of 55.4, 60% female, 25% BMI 30-34.9, and 75% BMI 35-40. **Conclusions:** Using novel methods, we've demonstrated the feasibility of conducting a RCT of RYGB vs. behavioral intervention in an HMO setting, including enrolling participants with a BMI <35 (below current NIH standards for RYGB). We confirmed the ratio of screened to enrolled is ~50-100:1 and therefore large populations are needed to apply this approach to recruit a population in genuine equipoise without significant coercion.

Keywords: Diabetes Treatment; Obesity
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PS2-27:

Birth Size, Gestational Age, and BMI at Age 5y

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Background/Aims: Early life factors such as birth weight have been found to be associated with risk for child overweight. Birth size measures such as birth length and various weight for length indices, and gestational age may also be related to the risk for later adiposity, but the contribution of these other variables is still unclear. We examined the role of birth size and gestational age with BMI in children at ages of approximately 5 years old in a multiethnic population. **Methods:** This is a retrospective, longitudinal study that used Kaiser Permanente Hawaii Electronic Medical Record (EMR) data of 1720 children born in 2004 and 2005. We examined birth weight (kg), birth length (cm), gestational age(wks), and birth weight for length indices (weight divided by length, by length² (BMI) or by length³ (ponderal index)) as indicators of birth size measures. The clinic visit weights and heights closest to age 5 y were used calculate BMI (kg/m²). Multiple regression models of BMI at age 5y included gestational age and either birth weight or a function of weight and birth length. **Results:** Birth weight was associated with BMI at age 5 y ($\beta = 0.99$, $SE = 0.12$, $p = 0.0001$). Gestational age was independently (and inversely) associated with BMI at age 5 y ($\beta = -0.12$, $SE = 0.03$, $p = 0.0001$), but it did not affect the association between birth weight and BMI. Birth length was not independently associated with BMI and the interaction with birth weight was not statistically significant. Separate models of birth weight to length indices adjusted for gestational age, account for less of the variance in BMI at age 5y than models with birth weight. **Conclusion:** Birth weight and gestational age are independently associated with BMI at age 5y. However birth length and indices of birth weight for length were not associated with BMI at age 5y. Thus, there is potential for birth weight and gestational age to serve as risk indicators of increased BMI at age 5y.

Keywords: Birth size; BMI; Obesity
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PS2-28:

The Association of Body Composition Indices and Hormonal Contraceptive Use in Adolescent and Young Adult Women

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Background/Aims: Hormonal contraception is a popular contraceptive choice among sexually-active women. Yet, its association with body composition in younger women is not well understood. We compared body composition measures by 1.) duration of Depo-Provera (DMPA) use and 2.) dose and duration of oral contraceptive (OC) use in adolescent and young adult women. **Methods:** Study participants were Group Health Cooperative members. DMPA use (new, prevalent, or none) was collected in 170 adolescents aged 14-18 years, and in 440 women aged 18-39 years. OC use was gathered in 301 adolescents aged 14-18 years, and 305 women aged 19-30 years. Among OC users, ethinyl estradiol (EE) dose (≈ 30 mcg vs. <30 mcg) and months of use were also collected. For all participants, weight, BMI, and truncal and total fat and lean mass were estimated using DEXA. Mean differences in baseline body composition by dose and duration of hormone contraception use were compared cross-sectionally using ANOVA. **Results:** Adolescents who were prevalent DMPA users had higher baseline truncal and total fat mass compared to adolescent non-DMPA users. For example, baseline mean (SE) total fat mass was 23.3 (1.2) kilograms for prevalent DMPA users, but was 19.9 (0.9) kilograms for non-DMPA users ($p < 0.05$). No mean differences in the body composition measures were observed between new DMPA vs. non-DMPA adolescent users or among young women, regardless of DMPA use. With OC use, baseline BMI and truncal and total fat mass differed by EE dose in young adult women. Baseline mean (SE) total fat mass, in kilograms, for women using ≈ 30 mcg EE doses, <30 mcg EE doses, and for non-OC users was 20.8 (0.9), 19.0 (0.9), and 22.2 (0.9), respectively ($p = 0.02$). No differences were noted between EE dose and body composition indices in adolescents. For both adolescents and young women, baseline body composition was not associated with duration of OC use. **Conclusions:** Our results suggest that DMPA use is associated with fat mass in adolescents and that EE dose in OCs is associated with fat mass in young adult women. Analysis of follow-up data to determine if these relationships continue to be seen longitudinally is needed.

Keywords: Oral Contraceptives; Body Composition; Obesity
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Pharmacoepidemiology

PS2-29:

Comparison of Self-reported Oral Contraceptive Use and Automated Prescription Fills

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Background/Aims: Self-reported use of oral contraceptives (OCs) may be subject to recall bias. Previous reports comparing self-report OC use and computerized pharmacy data have focused on current use or longer-term use in younger women and have found (adjusted) kappa statistics of 79-85%. The objective of the current analysis was to evaluate the reliability of self-reported OC use obtained from a sample of peri- and early post-menopausal women. **Methods:** Participants were 45-59 year-old women eligible for an ongoing population-based case-control study assessing the association between OC use and incident fractures around the menopausal transition. Cases were all women enrolled in Group Health with an ICD9 osteoporotic fracture code in 2008-2009; age-matched non-fracture controls were randomly selected. Eligible cases and controls ($n = 535$) who reported at interview that they always/usually filled prescriptions at GH pharmacies and agreed to record review were included. Respondents who reported ever