identify strategies to help maintain or enhance CRC survivors' HRQOL. **Methods:** Mail survey and focus groups. Subjects were 283 ostomy and 392 anastomosis long-term CRC survivors within an HMO. Focus groups for subjects with ostomy were divided by gender and high and low HRQOL. Outcome measures were the modified City of Hope Quality of Life (mCOH-QOL)-Ostomy (abridged for anastomosis) and SF-36v2 questionnaires. The SF-6D scoring algorithm was used to calculate an overall HRQOL score from SF-36v2 data. Focus groups were conducted to explore ostomy-related barriers to effective self-care and adaptation strategies. **Results:** CRC survivors with an ostomy experienced multiple persistent HRQOL losses that differ between men and women. Women CRC survivors with ostomies, for example, reported more sleep disruption and fatigue than men. Living with an ostomy, co-morbidities, socioeconomic status, self-reported depression, and employment status were independent predictors of SF-6D scores. Among CRC survivors with ostomy, fistulas had important implications for HRQOL. Psychological wellbeing among CRC survivors was positively associated with income. Intestinal stomas significantly influenced spiritual HRQOL. Provision or withdrawal of a partners' support affected both short- and long-term psychosocial adjustment of female CRC ostomy patients. Focus group participants identified dietary changes to control bowel output and odor, demands of coping and adjustment, and the time it took to accept the reality of daily living with an ostomy as significant challenges. **Conclusions:** The greatest challenges reported by CRC survivors confirmed the IOMs findings that survivorship is a distinct, chronic phase of cancer care, and that cancer effects are broad and pervasive. CRC survivors could benefit from dietary and behavioral interventions even 5+ years after their cancer surgery. Women with ostomies seem to do worse than men with ostomies and report a different profile of HRQOL challenges, including sleep disruption and fatigue. Depression screening and psychosocial interventions should be part of survivorship care for CRC patients. CRC survivors should be assessed for income and financial need. Survivorship care should aim at minimizing hospitalizations, depression, and ostomy-related complications among long-term CRC survivors.

C-C4-03:

Examination of the Use of First-Line Chemotherapy Regimens for Colorectal and Lung Cancer: Impact of Patient Characteristics

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Background: Chemotherapy has been shown to improve both response and survival rates for patients with cancer. As chemotherapy treatments become more costly, these improvements in survival are coming with a substantial price tag. The financial burden of chemotherapy is forcing both patients and health plans to make difficult decisions regarding cancer treatment. Historically, most HMOs have provided comprehensive cancer care with limited, fixed co-payments. However, in recent years, HMOs have begun to implement benefit design packages that increase patient cost-sharing for cancer care services. **Aim:** To examine the variation in lung and colorectal cancer patients who receive first choice cancer chemotherapy services as defined by American Society of Clinical Oncologist (ASCO)-derived guidelines, which are currently employed by all Kaiser Permanente (KP) regions. The variation in first choice cancer chemotherapy regimen use by stage, age, gender, and variables capturing differences in benefit design is also examined. **Methods and Study Design:** This is a retrospective, observational study of the rates of chemotherapy regimen use for a cohort of HMO cancer patients at two KP regions, Colorado and Georgia. Algorithms were built based on ASCO guidelines, to identify the more than 20 cancer chemotherapy regimens that are based on cancer site (lung vs colorectal), stage, and morphology. These algorithms were mapped to National Drug Codes (NDCs) and patient specific utilization was extracted from legacy pharmacy systems and the Virtual Data Warehouse (VDW) files. A time series for the period 2006–2008 with month-by-month measurement of the proportion colorectal and lung cancer patients who receive first choice cancer chemotherapy services, along with variables denoting variation in patient and tumor characteristics and benefit design, was built. Statistical analyses describing variation were conducted. **Results:** Preliminary findings suggest that variation exists within and across the two health plans and by cancer site and stage. Also, variation in the use of first-choice cancer chemotherapy services may be impacted by recently implemented increases

in patient costsharing. **Conclusions:** Additional analyses are required to further investigate the impact of patient cost-sharing and injectable/infusion coinsurance.

C-C4-04:

Trends in Breast Cancer Incidence in a Setting of Increased Mammography Screening and Decreased Use of Oral Estrogen Replacement Therapy

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Background: Utilization of estrogen hormone replacement therapy (HRT) has dropped dramatically since the publication of the Women's Health Initiative findings questioning its use for prevention of chronic conditions. Recent publications have suggested a link between this drop in HRT use and a parallel drop in breast cancer. **Methods:** Maccabi Healthcare Services provide services to nearly 1.8 million members. We tracked estrogen use, mammography screening utilization, and breast cancer diagnoses in a cohort of female members from 2000 to 2006. Inclusion criteria were: age 45 and over on 1/1/2000, active HMO member from 1/1/2000 until death or 12/31/2006, no history of breast cancer prior to 1/1/2000. We used a Cox proportional hazards model to estimate the contributions of mammography screening, age at the start of the study period, and use of oral estrogen therapy on breast cancer risk. **Results:** The study cohort consisted of 168,732 women, of whom 35,606 (21.1%) purchased oral HRT, 116,373 (69%) had at least one screening mammogram, and 3,939 (2.3%) were diagnosed with breast cancer between 1/1/2000 and 12/31/2006. The percent of women undergoing screening mammography was 16.7% in 2000 and peaked at 34.3% in 2005. The proportion purchasing estrogens dropped from 14.4% in 2000 to 5.0% in 2006. Annual cancer incidence was 3.2/1000 in 2000, and peaked at 3.5/1000 in 2006, in parallel with the peak in mammography screening. A Cox proportional hazards model including an interaction term for mammography* oral estrogen use indicated a significant positive association of mammography screening (HR 6.96, 95% CI 1.305 – 1.042), oral HRT (HR 2.0, 95% CI 1.32 – 2.90) and age (HR 1.035, 95% CI 1.035 – 1.042) on cancer incidence. **Discussion:** We detected an increase in cancer incidence concurrent with and following a rapid decline in HRT use. Our findings demonstrate the competing impacts of increased mammography screening and decreased HRT use on breast cancer incidence and underscore the value of person-level analysis in assessing such trends. Future work will focus on the impact of estrogen-only and estrogen-progestin, and characterize the effects of HRT estrogen receptor-positive and -negative cancers.

PS2-01:

A Multimodal Reminder Program Improves Routine Mammogram Screening Rates

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Background/Aims: This retrospective cohort study evaluated the effectiveness of implementation and maintenance phases of a multimodal reminder program to improve routine mammography screening. **Methods:** The program used automated reminder calls and was conducted at Kaiser Permanente Northwest, a nonprofit group-model HMO with an electronic medical record. Study participants were women HMO members aged 42 or older who were 20 months past their last mammogram (index date) during three time periods: pre-reminder (2004), post-reminder implementation phase (2006), and post-reminder maintenance phase (Jan 1–July 1, 2007) (Total n=35,104). The program targeted women aged 50–69 with a mammogram due followed by post card, followed by up to 2 automated phone calls and 1 live call for non-responders. Women aged 42–49 (for whom clinical guidelines also recommend mammography) receiving no reminders constituted the primary comparison group (CG 1). The primary outcome was time until mammogram in the 10 months following the index date. **Results:**