Women who were ≥40 years of age on January 1st and ≤64 years of age on December 31st of each year were extracted. Results with a diagnosis of breast or colon/rectal abnormal findings were excluded from the analyses using appropriate ICD-9 codes (174.XX, 233.0X, 238.3X, 239.3X). Data for women with claims for screening mammography at any time during each calendar year were extracted using following CPT code: 76912. Results were reported by age group (40-49 years, 50-59 years, and 60-64 years), race (White, Black, and others), country of residence, and geographic area (metro, non-metro urban, non-metro rural) for each calendar year. RESULTS: There was an estimated 12% increase in the screening mammography between 2000 and 2005. A consistent increase in the mammography screening was observed during study period (2000-2005) among women who were 50-59 years of age as compared to those between 40-49 and 60-64 years of age. Approximately 90% women who underwent mammography screening resided in either metro or non-metro urban areas.

CONCLUSIONS: Screening mammography trends differed among women based on demographic characteristics. Further research is needed to evaluate accessibility and knowledge among indigent women in order to develop effective breast cancer prevention strategies.

HEALTH WORKERS’ WORK ENVIRONMENT SATISFACTION IN ONCOLOGIC SERVICES AT THE SOCIAL SECURITY MEXICAN INSTITUTION

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OBJECTIVES: The aim of this study was to identify health workers’ labor environment satisfaction in several oncology services from a tertiary referral center and two secondary level hospitals at the Social Security Mexican Institute (IMSS). METHODS: A cross-sectional and descriptive study was performed within the IMSS in Guadalajara, Jalisco, Mexico. The health workers were interviewed using the work environment scale (WES), this questionnaire contains 90 items through dichotomy answers (true/false) to evaluate medical staff satisfaction among several items: involvement, cohesion, support, autonomy, organization, work-pressure, clarity, control, innovation, guidance and comfort. All workers interviewed attend mainly oncology patients. Internal consistency was evaluated through Cronbach’s alpha and ANOVA to obtain statistical differences between health workers responses. This questionnaire was previously validated in Mexico. RESULTS: Eighteen physicians, 27 nurses, 7 medical assistants and 8 radiotherapy technicians were interviewed. The mean response for all health workers interviewed satisfaction level including all items was of 49% (23% to 78%), the lowest satisfaction level was for the comfort item (39%) and the highest was for the clarity item (59%). We did not find differences between medical staff specialties, with exception of nurses, whom were the lowest satisfaction level group (38%; p = 0.001). However, statistical differences among all the hospitals studied in the assessment were found. In the tertiary referral center physicians showed the lowest work environment satisfaction in the cohesion item (40%; p = 0.09) followed by nurses giving services to inpatients (38%; p = 0.01). In second-level patients the lowest work environment satisfaction level was obtained in medical assistants in clarity items (37%; p = 0.03) and nurses in involvement item (p = 0.04). CONCLUSION: Using the WES scale in IMSS Mexican hospitals, the analysis showed that medical staff that attend oncology patients, are dissatisfied with their work environment. The less satisfied were nurses and medical assistants.

GUIDELINES AND CANCER SCREENING IN THE UNITED STATES AND CANADIAN HEALTH SYSTEMS

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OBJECTIVES: To understand Canadian and U.S. health system compliance with cancer screening guideline information with respect to the age of screening initiation. METHODS: Canadian and U.S. cancer screening generally identify ages when cancer screening should be initiated. We use a regression discontinuity research design to identify changes in cancer screening in Canadian and U.S. cancer screenings in the past two years at the guideline recommended ages. Multivariate logistic regression analyses were performed using breast, prostate and colorectal cancer screening within the past two years as the dependent variables of interest. Logistic regression models also adjusted for respondents’ demographic and socioeconomic characteristics. We analyze screening for adult individuals from the 2006 Behavioral Risk Factor Social Survey, 2003 National Health Interview and 2003 and 2005 Canadian Community Health Surveys. RESULTS: Graphical and logistic regression analyses identified large statistically significant increases in cancer screening rates precisely at the U.S. guideline recommended screening initiation ages. U.S. breast, colorectal and prostate screenings increase by 33%, 25% and 27% respectively at the guideline recommended age (age 40 for breast and age 50 for colorectal and prostate cancers). Similarly in Canada we found a 20% increase in breast cancer screening rates at age 50, the Canadian guideline recommended age for screening initiation. We did not find a discrete increase in the Canadian colorectal cancer screening rate at the Canadian recommended screening age of 50. CONCLUSIONS: U.S. and Canadian cancer screening utilization is generally consistent with each country’s guideline recommendations regarding age. The cross-country differences in screening identified in this study can potentially explain cross-country differences in cancer mortality rates and affect interpretation of cross-country cancer statistics. The similarity of other OECD cancer screening guidelines to Canadian screening guidelines suggests that results from this study have broader applicability to comparisons of cancer statistics between U.S. and other OECD countries.

THE IMPACT OF CANCER SCREENING GUIDELINE INFORMATION ON CANCER DETECTION

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OBJECTIVES: To understand the impact of U.S. cancer screening guideline information on U.S. cancer screening and cancer detection. METHODS: We use an instrumental variables research design to identify the effects of breast, colorectal and prostate cancer screening guideline information on cancer detection. U.S. guidelines specify an age at which screening should begin, implicitly recommending that screening not occur for asymptomatic individuals below that age. We first estimate compliance with guideline information from the difference in age-specific screening rates just below and above the ages at which clinical guidelines recommend that screening begin.

We then perform instrumental variables regression analyses to estimate the effect of guideline induced screening on cancer detection. U.S. cancer screening and incidence data (years 2000-2005) are derived from the Behavioral Risk Factor Social Survey, the National Health Interview Survey and the SEER Program. RESULTS: Age-specific screening rates and NHS survey data indicate that breast, colorectal and prostate cancer screening in the last year rise by 55%, 88% and 29% precisely at the guideline recommended ages (age 40 for breast cancer and age 50 for colorectal and prostate cancers). Results from instrumental variables analyses indicate that a 1% point increase in screening at the guideline recommended ages leads to an additional case of breast and colorectal cancer detected per 100,000 individuals. The substantial increase in prostate cancer screening did not have an identifiable effect on prostate cancer detection. CONCLUSIONS: We used an instrumental variables strategies to identify the impact of guideline information on cancer screening and detection. Guideline information induces substantial increases in breast, colorectal and prostate cancer screening but these changes only lead to increases in breast and colorectal cancer detection. These results suggest that reductions in the use of the PSA test will result in substantial cost savings with minimal reductions in health.

IMPACT OF NEW DRUGS AND BIOLOGICALS ON TREATMENT AND COSTS FOR COLORECTAL CANCER

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OBJECTIVES: There have been a number of new drugs and biologicals approved by the FDA in the last five years for the treatment of colorectal cancer (CRC). Objective of this study was to compare the initial treatments and overall medical costs for working-age persons with CRC before and after the introduction of these treatments. METHODS: This retrospective cohort study was based on a large administrative database and included patients with an ICD-9 diagnosis of CRC. We looked at individuals treated for CRC in the prior period (2002-2004) and the period after the introduction of two biologicals (bevacizumab and cetuximab) and one chemotherapy agent (oxaliplatin) (June 2004-May 2005). We assigned patients to stage value at diagnosis and treatment regimens. We identified 2345 patients (61% Stage III) with CRC in the pre-period and 4413 patients (59% Stage III) with CRC in the post-period. We estimated mean total medical costs in the pre- and post-periods using the Kaplan-Meier sample average estimator. RESULTS: The predominant treatment regimen in the pre-period for Stage III CRC was 5-FU/Leucovorin (77%), while the pre-dominant regimens the post-period were F-FLU/Leucovorin (36%) and FOLFOX (35%). The pre-dominant treatment regimen for stage IV CRC was IFL/FOLFIRI (50%), while the most common regimens in the post-period were IFL/FOLFIRI (22%) and FOLFOX (23%). Additionally, over 14% of the patients received a biological agent in the post-period. There was also a significant increase in total medical costs over this time period. The mean costs for Stage III and Stage IV CRC patients increased by $16,061 and $16,187 in the pre-period to $30,104 and $30,317 in the post-period (p < 0.001). CONCLUSIONS: The introduction of new treatments for CRC significantly changed the treatment patterns for both Stage III and Stage IV CRC. These changes in treatment were accompanied by a significant increase total medical costs.

BREAST CANCER PREVALENCE AND HEALTH CARE UTILIZATION AND COST TRENDS AMONG FEE-FOR-SERVICE FEMALE RECIPIENTS IN A STATE MEDICARE PROGRAM

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OBJECTIVES: The occurrence of breast cancer in young women causes significant morbidity and mortality in breast cancer and results in considerable economic impact on patients, health care payers, and society. The purpose of this study is to determine the trends in the prevalence of breast cancer and associated health care utilization and costs among an indemnity population covered by a state Medicare program. METHODS: Descriptive analysis of a state Medicaid fee-for-service administrative claims dataset.