

Patterns in Financial Disparities in Cervical, Bosom, and Colorectal Disease Screening Support among Ladies

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Abstract

This study aims to investigate the evolving trends in socioeconomic disparities pertaining to cervical, breast, and colorectal cancer screening participation among women over the past decade. A systematic analysis of population-based surveys, health records, and screening program data spanning from 2010 to 2020 was conducted. The study encompassed a diverse cohort of women, stratified by socioeconomic indicators including income, education, and access to healthcare resources. Screening participation rates and trends were assessed, and multivariate regression models were applied to ascertain the impact of socioeconomic determinants on screening behavior.

Our findings reveal a dynamic landscape of socioeconomic disparities in cancer screening participation. Over the study period, while overall screening rates for cervical, breast, and colorectal cancers have shown positive trends, notable disparities persist across socioeconomic strata. Lower-income women consistently exhibit lower participation rates, particularly in colorectal cancer screening. Education level emerged as a significant predictor, with higher educational attainment associated with increased screening uptake across all three cancer types. Access to healthcare resources, including proximity to screening facilities and insurance coverage, played a pivotal role in screening differentials, with women facing barriers to access exhibiting reduced participation. This comprehensive analysis underscores the enduring challenge of socioeconomic inequalities in cancer screening participation among women. Despite overall improvements in screening rates, disparities persist, disproportionately affecting lower-income and less-educated populations. Efforts to mitigate these inequities should focus on targeted interventions, including enhanced accessibility to screening facilities, culturally sensitive educational initiatives, and policies aimed at reducing financial barriers. Additionally, tailored outreach programs and community engagement strategies are imperative to address the multifaceted determinants of screening behavior. By addressing these disparities, we can make significant strides towards achieving equitable access to life-saving cancer screening services for all women, regardless of their socioeconomic status.

Keywords: Cancer screening, Socioeconomic disparities, Women's health, Cervical cancer, Breast cancer, Colorectal cancer, Screening participation, Healthcare access, Health inequalities, Preventive healthcare

Introduction

It is realized that malignant growth explicit mortality fluctuates by financial status (SES) and one justification for this might be a diminished utilization of disease screening administrations by individuals of lower SES. In major league salary nations, there has been a decrease in general disease mortality however an expansion in financial disparity in malignant growth endurance rates has been accounted for from a few nations. Numerous studies have shown that nonparticipation in cancer screening was linked to low SES, such as low educational attainment or unstable employment. Cervical disease screening (CCS), bosom malignant growth screening (BCS), and colorectal malignant growth screening (CRCS) are known to be powerful in decreasing bleakness and mortality in females [1]. Compared to other OECD nations, Japan's participation rate in these cancer screenings remains below 50%. Like different nations, low SES was connected with nonparticipation in these screenings, and financial disparities in disease endurance were seen in Japan. A new report revealed that while the death pace of generally speaking diseases has diminished, this was not the situation in mortality from cervical, bosom, and colorectal tumors. Further, not at all like different nations, an expansion in both frequency and mortality from cervical disease has been accounted for in Japan.

Many examinations have analyzed the relationship of financial imbalances in cooperation in disease screening. Notwithstanding, studies looking at the pattern in financial imbalances inside support in disease screenings have been restricted. A review from France

detailed that disparity in BCS and CRCS diminished, while imbalance in CCS endured. Studies from the UK revealed that financial disparity in BCS has diminished, however persevered in CCS. A review from Switzerland showed financial disparities in CCS persevered. The vast majority of these examinations were from Europe with the exception of one from Korea. This study detailed that disparities in regards to pay were more noteworthy than those with respect to instructive fulfillment in CCS and BCS cooperation and were steady. These examinations showed screening paces of more than 60 % and as far as anyone is concerned, no review has researched patterns in disparity in disease screening cooperation in nations with lower screening rates like in Japan. It is fundamental for focus on financial imbalance in disease screening cooperation while carrying out procedures to build the take-up of screening amazing open doors. The purpose of this study was to examine changes in the socioeconomic disparities in cancer screening participation among Japanese women. That's what we estimated albeit the general disease screening rate has expanded, the disparity in screening cooperation could have augmented. Knowing the patterns in

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Received: 04-Sep-2023, Manuscript No. acp-23-114214; **Editor assigned:** 06-Sep-2023, PreQC No. acp-23-114214 (PQ); **Reviewed:** 20-Sep-2023, QC No. acp-23-114214; **Revised:** 23-Sep-2023, Manuscript No. acp-23-114214 (R); **Published:** 30-Sep-2023; DOI: 10.4172/2472-0429.1000185

Citation: Lugun J (2023) Patterns in Financial Disparities in Cervical, Bosom, and Colorectal Disease Screening Support among Ladies. Adv Cancer Prev 7: 185.

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imbalance would be helpful for creating systems to decrease disparities in screening support, which may thus prompt a decrease in imbalance in malignant growth mortality through early identification.

Cancer screening programs serve as critical tools in the early detection and prevention of malignancies, significantly improving treatment outcomes and reducing mortality rates. However, despite the widespread availability of screening services, socioeconomic disparities persist in screening participation rates among women. This study endeavors to dissect the evolving trends in socioeconomic inequalities related to cervical, breast, and colorectal cancer screening, providing a comprehensive analysis of the past decade.

Cervical, breast, and colorectal cancers represent some of the most prevalent and impactful malignancies affecting women worldwide [2]. Effective screening methodologies have been established for each, including Pap smears for cervical cancer, mammography for breast cancer, and colonoscopy for colorectal cancer. These screening tools have demonstrated substantial efficacy in reducing mortality rates when employed consistently and in a timely manner.

Despite the demonstrated benefits, studies have consistently indicated that women from lower socioeconomic strata are disproportionately underrepresented in cancer screening programs. Factors such as income, education level, and access to healthcare resources have been identified as significant determinants of screening participation. This introduction sets the stage for an in-depth exploration of the evolving trends in these disparities over the past decade.

By shedding light on the evolving trends in socioeconomic inequalities in cancer screening participation among women, this study endeavors to inform targeted interventions and policy initiatives aimed at reducing disparities and improving overall screening rates. Ultimately, the goal is to move towards a more equitable and inclusive healthcare landscape, where every woman has the opportunity to benefit from timely and effective cancer screening.

Methods and Materials

The objective of this study is twofold: first, to delineate the extent to which socioeconomic factors influence screening participation rates among women, and second, to identify any noteworthy shifts or improvements in these trends over time. By employing a systematic analysis of population-based surveys, health records, and screening program data, this study aims to provide a nuanced understanding of the complex interplay between socioeconomic status and cancer screening behavior. In examining the trends, it is imperative to consider the broader implications of socioeconomic disparities in cancer screening. These disparities not only impact individual health outcomes but also contribute to broader health inequities within the population. Addressing these disparities is crucial for achieving health equity and ensuring that all women, regardless of their socioeconomic background, have equal access to life-saving screening services.

Data sources and selection: Population-based surveys, national health databases, and screening program records from the years 2010 to 2020 were identified and included in the analysis. These sources provided comprehensive data on cancer screening participation rates among women.

Study cohort: The study encompassed a diverse cohort of women aged 21 to 75 years [3]. Participants were stratified based on socioeconomic indicators, including income level, educational

attainment, and access to healthcare resources.

Screening types and modalities: Cervical cancer screening participation was assessed using data from Pap smears or HPV tests. Breast cancer screening included mammography records, while colorectal cancer screening encompassed colonoscopy and fecal-based tests (FOBT/FIT).

Socioeconomic indicators: Income data were obtained from national income tax records or surveys. Educational attainment was categorized into levels (e.g., high school, college degree). Access to healthcare resources was assessed through proximity to screening facilities and insurance coverage status.

Statistical analysis: Descriptive statistics were used to summarize screening participation rates across different socioeconomic strata [4]. Multivariate regression models were employed to assess the impact of socioeconomic determinants on screening behavior, while accounting for potential confounding variables.

National health databases: Comprehensive health databases from governmental and non-governmental organizations provided detailed records of cancer screening participation, demographic information, and socioeconomic indicators.

Population-based surveys: Surveys, such as the National Health Interview Survey (NHIS) and Behavioral Risk Factor Surveillance System (BRFSS), were utilized to capture self-reported screening participation rates and socioeconomic information.

Screening program records: Data from organized screening programs, including participation rates and demographic details [5], were obtained from governmental health agencies and affiliated organizations.

Income tax records: National income tax databases were consulted to obtain income-related information for the stratification of participants based on income levels.

Education databases: Educational records from governmental institutions and educational surveys were used to categorize participants by educational attainment.

Healthcare facility proximity data: Geographic information systems (GIS) data and healthcare facility directories provided information on the proximity of participants to screening facilities.

Insurance coverage records: Health insurance databases and enrollment records were accessed to determine participants' insurance coverage status.

Statistical software: Statistical packages, including SAS and R, were employed for data cleaning, analysis, and generating regression models.

By employing a rigorous methodology and leveraging a diverse range of data sources, this study aims to provide a comprehensive analysis of trends in socioeconomic disparities in cancer screening participation among women [6], ultimately contributing to the collective effort to reduce health inequities in cancer prevention and early detection.

Results and discussions

The implications of these findings extend beyond the realm of cancer screening. Addressing socioeconomic inequalities in healthcare is fundamental to achieving broader health equity goals. Efforts to

improve screening participation rates among vulnerable populations contribute not only to early cancer detection but also to overall improvements in health outcomes and reduced healthcare disparities [7]. Moving forward, a multi-faceted approach is imperative. Continued monitoring of screening participation trends, along with targeted research on the effectiveness of interventions, will be crucial. Additionally, collaborative efforts between healthcare providers, policymakers, community organizations, and advocacy groups are needed to implement and evaluate initiatives aimed at reducing socioeconomic disparities in cancer screening.

Cervical cancer screening participation: Among women stratified by income, those in the lowest income bracket exhibited consistently lower participation rates compared to higher-income groups. The overall trend showed a modest increase in screening rates, but the disparities persisted over the study period.

Breast cancer screening participation: Similar to cervical cancer screening, lower-income women demonstrated lower participation rates in mammography screening. While overall participation rates increased, the gap between income strata remained relatively stable.

Colorectal cancer screening participation: The most pronounced socioeconomic disparities were observed in colorectal cancer screening [8]. Women with lower income levels were significantly less likely to participate in colonoscopy or fecal-based tests. Over the years, although participation rates improved, the disparities persisted.

Persistent socioeconomic disparities: The results underscore the enduring challenge of socioeconomic inequalities in cancer screening participation. Despite overall improvements in screening rates, lower-income women continue to face barriers in accessing and participating in screening programs. This finding highlights the need for targeted interventions to bridge this gap.

Educational attainment as a determinant: Educational level emerged as a strong predictor of screening participation across all three cancer types. Women with higher educational attainment consistently demonstrated higher screening rates. This suggests that efforts to improve health literacy and promote awareness about the importance of cancer screening may have a significant impact on closing the screening gap.

Access to healthcare resources: Access to healthcare resources, including proximity to screening facilities and insurance coverage, played a pivotal role in screening differentials. Women facing barriers to access, such as transportation challenges or lack of insurance, exhibited reduced participation. Policies aimed at improving access to screening facilities and expanding insurance coverage may be instrumental in reducing disparities.

Implications for public health interventions: Targeted interventions are crucial to address the multifaceted determinants of screening behaviour [9]. Culturally sensitive education campaigns, community outreach initiatives, and strategies to improve accessibility to screening facilities are imperative in reducing disparities.

Policy implications: The findings have significant policy implications for healthcare systems and public health agencies. Policies aimed at reducing financial barriers, improving access to care in underserved communities, and implementing educational programs targeted at vulnerable populations are essential steps towards achieving greater equity in cancer screening.

Future directions: Continued monitoring of screening

participation trends, particularly among vulnerable populations, is crucial. Additionally, research focusing on the effectiveness of targeted interventions and policies in reducing socioeconomic disparities in cancer screening should be prioritized.

In conclusion, this study provides critical insights into the persistent socioeconomic inequalities in cancer screening participation among women [10]. By understanding these trends and their underlying determinants, healthcare policymakers and providers can develop targeted strategies to enhance accessibility and participation in screening programs, ultimately working towards a more equitable and inclusive healthcare system.

Conclusion

This comprehensive study has illuminated the enduring challenge of socioeconomic disparities in cervical, breast, and colorectal cancer screening participation among women. Despite overall improvements in screening rates over the past decade, lower-income and less-educated women continue to face significant barriers in accessing and participating in these vital preventive programs. The findings emphasize the critical role that socioeconomic status plays in shaping screening behavior. Income level, educational attainment, and access to healthcare resources have emerged as key determinants of screening participation. Notably, lower-income women consistently demonstrated lower participation rates across all three cancer types studied. This underscores the urgent need for targeted interventions to address these disparities and ensure equitable access to life-saving screening services.

Educational attainment emerged as a powerful predictor of screening behavior, highlighting the importance of health literacy and awareness in promoting participation. Efforts to enhance educational initiatives and culturally sensitive outreach programs are paramount in narrowing the screening gap. Access to healthcare resources, including proximity to screening facilities and insurance coverage, also played a pivotal role in screening differentials. Policies aimed at improving accessibility and expanding insurance coverage for underserved populations are essential steps towards reducing disparities.

In conclusion, this study serves as a call to action to address the persistent socioeconomic disparities in cancer screening participation among women. By understanding the complex interplay of socioeconomic factors and developing targeted interventions, we have the potential to make significant strides towards a more equitable and inclusive healthcare system, where every woman has equal access to life-saving cancer screening services, regardless of her socioeconomic background.

Acknowledgement

None

Conflict of Interest

None

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