World Academy of Science, Engineering and Technology
International Journal of Health and Medical Engineering
Vol:15, No:10, 2021

# Using Econometric Methods to Explore Obesity Stigma and Avoidance of Breast and Cervical Cancer Screening

**Authors :** Stephanie A. Schauder, Gosia Sylwestrzak

**Abstract :** Overweight and obese women report avoiding preventive care due to fear of weight-related bias from medical professionals. Gynecological exams, due to their sensitive and personally invasive nature, are especially susceptible to avoidance. This research investigates the association between body mass index (BMI) and screening rates for breast and cervical cancer using claims data from 1.3 million members of a large health insurance company. Because obesity is associated with increased cancer risk, screenings for these cancers should increase as BMI increases. However, this paper finds that the distribution of cancer screening rates by BMI take an inverted U-shape with underweight and obese members having the lowest screening rates. For cervical cancer screening, those in the target population with a BMI of 23 have the highest screening rate at 68%, while Obese Class III members have a screening rate of 50%. Those in the underweight category have a screening rate of 58%. This relationship persists even after controlling for health and demographic covariates in regression analysis. Interestingly, there is no association between BMI and BRCA (BReast CAncer gene) genetic testing. This is consistent with the narrative that stigma causes avoidance because genetic testing does not involve any assessment of a person's body. More work must be done to determine how to increase cancer screening rates in those who may feel stigmatized due to their weight.

**Keywords :** cancer screening, cervical cancer, breast cancer, weight stigma, avoidance of care
**Conference Title :** ICCCB 2021 : International Conference on Cervical Cancer and Brachytherapy
**Conference Location :** Los Angeles, United States
**Conference Dates :** October 28-29, 2021