

PRESENTATION: ORAL PRESENTATION (GENERAL SESSION) –  
BEST STUDY IN EPIDEMIOLOGY

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## 904 – The paradox of perceived cost and free access: determinants of willingness to undergo hereditary breast cancer genetic testing in Brazil

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**Introduction:** While genetic testing enables critical preventive strategies for breast cancer, access in middle-income settings remains challenging. Despite a state law in Goiás, Brazil, ensuring free BRCA1/2 testing for eligible women, structural and personal barriers persist. This study evaluated factors influencing the willingness of adults to undergo genetic risk assessment.

**Methods:** A population-based cross-sectional study was conducted with 239 adults residing in Goiás. Data concerning sociodemographics, cancer history, and perceived barriers to genetic testing were gathered through a structured online survey. Determinants of testing willingness were initially assessed using bivariate analysis, followed by multivariate logistic regression to estimate adjusted odds ratios (aOR) and 95% confidence intervals (CI). Ethical approval was obtained (CAAE 84082424.9.0000.5076).

**Results:** A strong overall willingness to undergo genetic testing was observed, with 74.9% of respondents expressing acceptance. Bivariate analysis revealed significant associations between willingness and perceived cost ( $p < 0.001$ ), lack of test prioritization ( $p < 0.001$ ), and sex ( $p = 0.039$ ). Following multivariate adjustment, the perception of cost as a barrier (aOR=4.49; 95%CI 2.18–9.27;  $p < 0.001$ ) and a lack of personal prioritization (aOR=0.26; 95%CI 0.12–0.55;  $p < 0.001$ ) remained independent predictors of the willingness to pursue genetic testing.

**Conclusion:** Despite existing legislative support for free testing, perceived financial barriers and personal prioritization significantly dictate the willingness to undergo hereditary cancer risk assessment. Bridging the gap between public health policy and community health literacy is critical to optimizing genetic testing uptake in resource-constrained settings.

**Ethics:** Research Ethics Committee Approval (CAAE 84082424.9.0000.5076).

**Keywords:** genetic testing; breast neoplasms; early detection of cancer; BRCA1 protein; BRCA2 protein.