

# Genetic Counseling among Males: Results from the Hereditary Cancer Network Database

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## Introduction

- The National Comprehensive Cancer Network recommends that all males who have: breast cancer, a personal history of prostate cancer with a Gleason score  $\geq 7$ , a colorectal cancer diagnosis at age 50 or younger, or no personal history but have a significant family history of these cancers should be referred to genetic counseling.

## Methods

- Incidence and mortality data were obtained from the Michigan Cancer Surveillance Program (MCSP) and the Division for Vital Records and Health Statistics while genetic counseling and testing information was analyzed using data obtained from the Hereditary Cancer Network (HCN) Database.
- Data analysis was conducted using SAS version 9.4 and significance was based on chi-square analyses with a significance value set at  $p < 0.05$ .

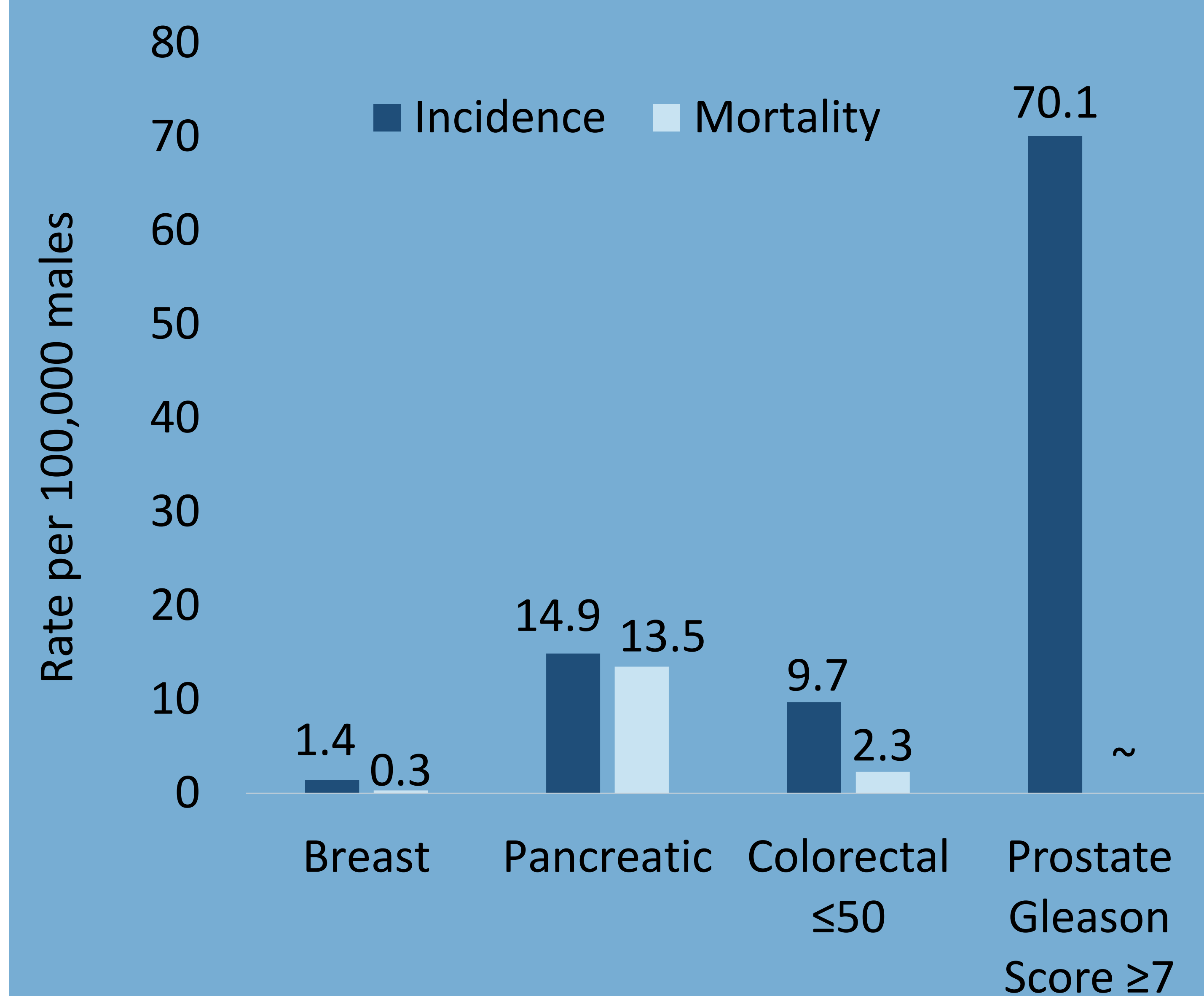
## Discussion

- When looking at possible hereditary cancer cases from MCSP, there is a high incidence rate of prostate cancer that has a Gleason score  $\geq 7$ .
- Even though men are more likely to order genetic testing compared to females, they tend to seek services at an older age.
- The most common reason for not having a genetic test ordered among men was due to testing not being clinically indicated (32.0%) (compared to 23.6% of females).
- If males with a strong family history receive a timely referral to genetic counseling and if a pathogenic mutation is found before they develop cancer, appropriate risk management can begin earlier, thus reducing the burden of hereditary cancer.

# Males seek genetic counseling and testing later in life compared to females.



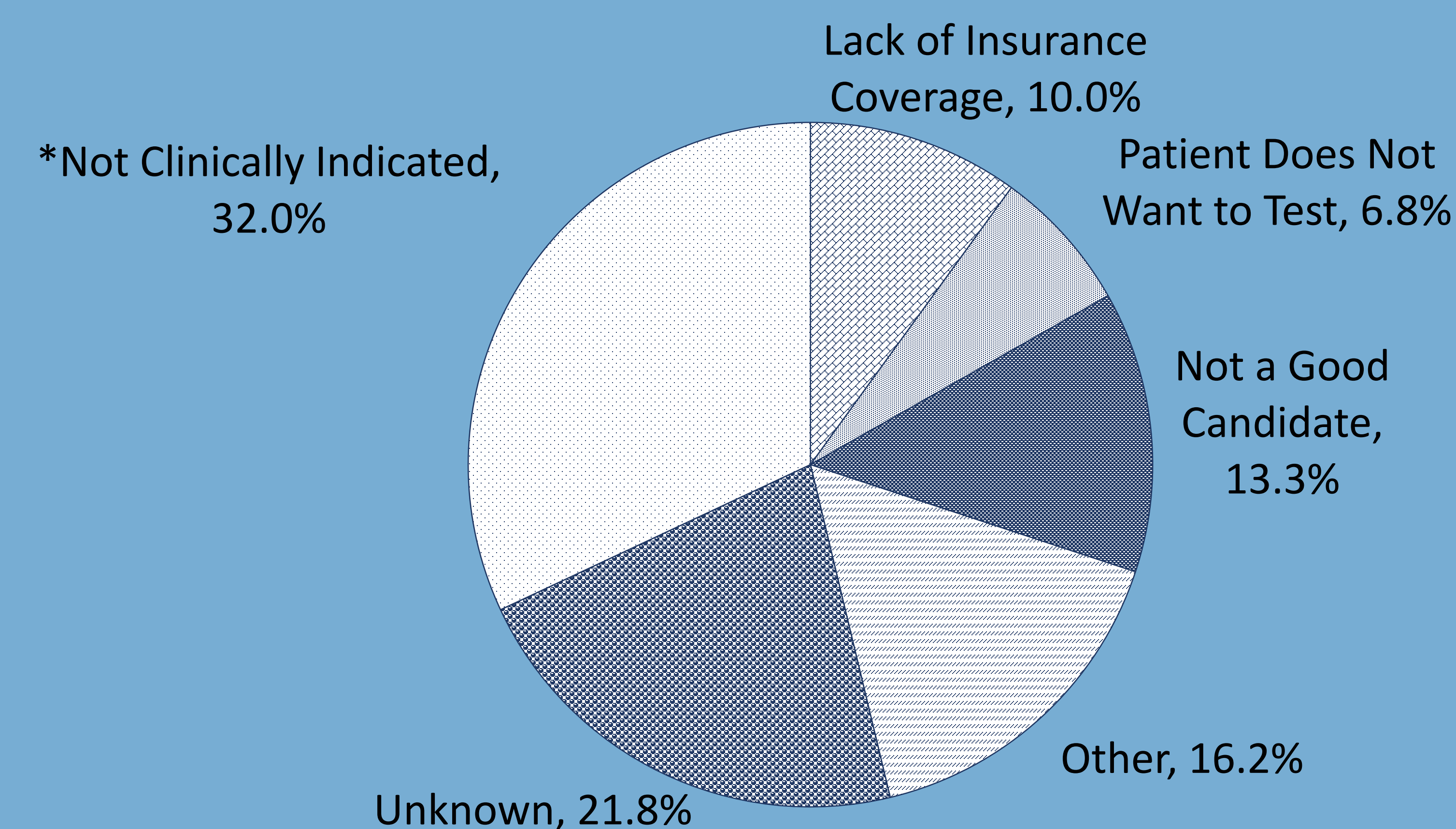
**Incidence and Mortality Rates for Specific Cancers among Males, 2012-2016**



**Demographics of the HCN Database, 2008-2017**

	Females N (%)	Males N (%)
<b>Race</b>		
Black	2,106 (7.8)	111 (4.7)
Other	2,757 (10.2)	191 (8.1)
White	22,126 (82.0)	2,072 (87.3)
<b>Ashkenazi Jewish Heritage</b>	1,119 (4.8)	138 (6.8)
<b>Insurance Provider</b>		
Medicaid	1,566 (5.8)	88 (3.7)
Medicare	4,191 (15.5)	265 (20.1)
Uninsured	191 (0.7)	15 (0.6)
Private	20,767 (76.9)	1,768 (74.5)
<b>Age at Initial Genetic Counseling Visit*</b>		
50 or Younger	13,124 (48.6)	950 (40.1)
Older than 50	13,865 (51.4)	1,424 (60.0)
<b>Genetic Testing Ordered*</b>	18,030 (66.8)	1,712 (72.1)
50 or Younger	8,605 (47.7)	676 (39.5)
Older than 50*	9,425 (52.3)	1,036 (60.5)

**Reason Why Genetic Testing was not Pursued among Males in the HCN Database, 2008-2017**



\*Significance at  $p < 0.05$