

Utilization of Michigan Cancer Genetics Services, 2007–2011: Findings from the *BRCA* Clinical Genetic Counseling Database

Table 1. *BRCA* Counseling Patient Demographics, October 2007 – March 2011

	Counseling Patients	State of Michigan
	Number (%)	(%)
<b>Gender</b>		
Female	5,584 (95.0)	(50.9)
Male	290 (4.9)	(49.1)
Unknown	2 (0.0)	
<b>Race/Ethnicity</b>		
White	4,719 (80.3)	(76.5)
Black	432 (7.4)	(13.9)
Multi-racial	408 (6.9)	(2.4)
Asian / Pacific Islander	108 (1.8)	(2.5)
Arab Ancestry	102 (1.7)	(1.6)*
Hispanic	57 (1.0)	(4.1)
Native American	8 (0.1)	(0.5)
Other	11 (0.2)	(0.1)
Unknown	31 (0.5)	
<b>Ashkenazi Jewish Heritage</b>		
No	5,286 (90.0)	
Yes	590 (10.0)	
<b>Known Familial Mutation</b>		
No	5,127 (87.3)	
Yes	749 (12.8)	
<b>Family History Defined by USPSTF</b>		
No	3,392 (57.7)	
Yes	2,484 (42.3)	
<b>Personal Cancer History†</b>		
No	2,600 (44.3)	
Yes	3,276 (55.8)	

\* Does not exclude other races/ethnicities

† Personal history of breast and/or ovarian cancer

Board-certified genetics providers at 10 clinical facilities reported 5,876 patients for *BRCA* counseling between October 1, 2007 and March 31, 2011. As shown in Table 1, these patients were primarily female (95.0%) and white (84.4%).

Over half (55.8%) had a personal history of breast and/or ovarian cancer, while 42.3% of all patients seen for counseling had a family history of cancer that met the USPSTF Grade B Recommendation for referral based on family history. Ten percent of patients seen were of Ashkenazi Jewish ancestry and 12.8% of all patients had family members with known mutations.

Only 55 of the 290 males presenting for counseling had a history of breast cancer (19.0% of males), but 135 (47.0% of males) had a family member with a known mutation.

The Detroit region contains a large Arab population, and this is reflected in the 1.7% of patients reporting Arab ethnicity. While only 0.1% of patients reported Native American as their primary race, 252 of the 408 multi-racial patients were reported as part Native American (4.3% of all patients, compared to 0.9% of the Michigan population). When compared to Michigan’s 2010 American Community Survey data, Asian/Pacific Islander, Black, and Hispanic patients appear to be underrepresented among those receiving *BRCA* counseling. This remains true when multi-racial Asian/Pacific Islander, Black, and Hispanic patients are included in this count.

These data include genetic counseling visits from October 1, 2007 – March 31, 2011. Special thanks to the following institutions whose de-identified patient information was included in these analyses: Beaumont Health System Cancer Genetics Program, Henry Ford Health System, InformedDNA, Karmanos Cancer Institute Genetics Service, Michigan State University Division of Clinical Genetics, Oakwood Healthcare System’s Genetic Risk Assessment for Cancer Clinic, Providence Hospital Medical Genetics, Spectrum Health Cancer Genetics Program, University of Michigan Cancer Genetics Clinic, and University of Michigan Breast and Ovarian Cancer Risk and Evaluation Program.