Implementing Evidence-based Genomic Tests and Family Health History

Over 1 million Americans are at increased risk for early-onset cancer due to one of two genetic conditions:

- BRCA-associated hereditary breast, ovarian, and other cancers (BRCA);
- Lynch syndrome (LS)—hereditary colorectal, endometrial, ovarian, and other cancers; and

Most people with these conditions are not aware they have them, yet early detection and intervention could save their lives. State public health genomics programs are helping to reach people at risk by implementing evidence-based recommendations.

Innovative State Public Health Genomics Programs

Since 2008, CDC, through the Office of Public Health Genomics (OPHG) and the Division of Cancer Prevention and Control (DCPC), has supported state genomics programs in Michigan, Oregon, Georgia, and more recently Utah, Connecticut and Colorado, to implement evidence-based genomics recommendations.

States are:

- Identifying people eligible for recommended genomic services using cancer registries, and educating health providers.
- Facilitating payer coverage consistent with evidence-based recommendations by implementing model policies.
- Monitoring implementation of genomics recommendations by developing and evaluating new data sources.

Cancer Registry Bidirectional Reporting Identifies Thousands

- Michigan Department of Community Health (MDCH) reported back over 15,000 relevant cases of cancer, providing educational materials about BRCA and LS (2006-2007 registry data).
- The Connecticut Department of Public Health reported back over 5000 relevant cases of cancer, with educational resources, through a Healthy People 2020 Action Award (2008-2009 data).

Model Payer Policies Promote Coverage of Evidence-Based Genomics Recommendations for Millions

- MDCH partnered with major payers to implement policies consistent with the 2005 U.S. Preventive Services Task Force BRCA recommendation, extending coverage to over 6.6 million Michigan residents, from 2008-2011.
- DCPC examined medical policies in the U.S. related to genetic counseling for hereditary breast and ovarian cancer, finding that of 348 health plans across 38 states, only 58% had written policies.

Next Steps

- In 2014, OPHG published an on-line toolkit to facilitate sharing model public health genomics approaches across states, and applying these approaches to other evidence-based genomic testing applications such as familial hypercholesterolemia.
- OPHG is actively exploring new approaches to implement and sustain model public health genomics programs in new states.
- OPHG is working to develop and implement novel public health approaches to use cascade screening to reach at-risk family members of people with BRCA and LS identified through public health genomics programs to help multiply program impact.
- In partnership with CDC programs, OPHG is pursuing new approaches to monitor implementation of evidence-based genomic testing and family health history in practice, including identifying surveillance indicators for use at the state and national level.
- OPHG continues to build strategic partnerships with health care systems, professional organizations and disease support groups.

More Information

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