

Family health history questions in Michigan surveys

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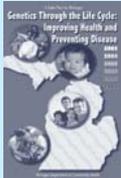
Introduction

Family health history is an important risk factor for many chronic diseases. Family health history represents key **genomic** information because it reflects the combination of genetic susceptibilities, shared environment, and common behaviors. National and state genomics initiatives aim to **increase awareness** and **promote** the utilization of family health history as a valuable **chronic disease risk assessment tool**.¹ These efforts may also act as an avenue for health promotion messages, and may give the public incentive for behavior change.

One method of **incorporating genomics** into public health is by including family health history questions in **population-based surveys**. In 2004, a survey of U.S. adults reported that almost all respondents (96%) considered family history important to their personal health. However, less than 1/3rd actively collected family history information from relatives, indicating a need for promoting family history taking.² Currently, Michigan utilizes the **Behavioral Risk Factor Survey** and the **Diabetes, Arthritis, and Osteoporosis Risk Factor Survey** for addressing genomics issues within the state's population.

Purposes

The Michigan State Genetics Plan



Family health history questions used in state-wide surveys meet three specific goals of the state genetics plan:

- Assess the public health impact of heritable conditions.
- Promote early identification of individuals with heritable disorders or genetic susceptibilities, throughout the life cycle.
- Promote appropriate public health responses to advances in genomic medicine and technology.

Family health history questions in population surveys have many public health purposes. Information obtained may be used to:

Estimate and monitor trends in the reporting of family history of chronic disease



Assess public awareness and beliefs of family health history as a chronic disease risk factor



Track provider practices regarding family health history assessment



Compare national and state data

Methods

Behavioral Risk Factor Surveillance System (BRFSS)

- National-based system of health surveys established by the Centers for Disease Control and Prevention (CDC)
- The purpose is to monitor national and state-level prevalence of the major behavioral risks associated with premature morbidity and mortality among adults (aged 18 and older)
- Represents a valuable and widely-used source of information on health-related behaviors among U.S. adults.³

BRFSS Methodology

- Each state conducts monthly telephone surveillance via random-digit dialing
- Standardized questionnaire is used consisting of three sections:
 - Core component
 - Optional modules
 - State-added questions
- Questions relate primarily to chronic diseases and injury
- Data are weighted and adjusted for the probability of selection⁴



Data from the BRFSS are used to:

- ❖ Document health trends
- ❖ Identify emerging health issues
- ❖ Measure progress of health goals
- ❖ Compare health behaviors across states⁵

For more information regarding the Michigan BRFSS, please contact Michelle Cook, the Michigan BRFSS Coordinator, at ccookm@mdchmichigan.gov.

Michigan Behavioral Risk Factor Survey (BRFS)

- Conducted by the Michigan Department of Community Health (MDCH)
- Data collected by the Institute of Public Policy and Social Research at Michigan State University
- Survey of approximately 4000-5000 Michigan residents (aged 18 and older)
- Only source of state-specific, population-based estimates of the prevalence of various behaviors, medical conditions, and preventive health care practices among Michigan adults⁴
- Results are used by many agencies to develop health promotion programs⁴
- Family health history state-added questions first introduced in 2004 by the genomics staff at MDCH and continued in 2005



2004 BRFS

Family history questions focused on:

Provider practices

- Risk assessment based on family health history
- Discussion of family health history with patients
- Recommendations based on family health history
- Prevention and/or screening messages



2005 BRFS

Family history questions focus on:

- Collection of family health history information from relatives
- Importance of family health history to personal health
- Risk perception of colorectal cancer
- Motivation for behavior change based on family health history

Estimating prevalence of family history of colorectal cancer

- Relationship of affected relative

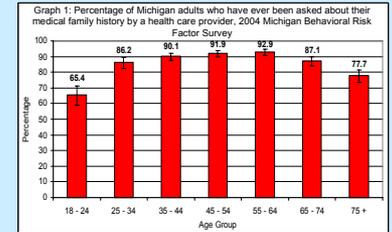
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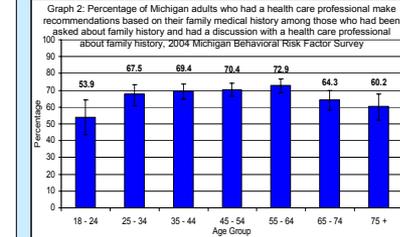
Results

According to the 2004 BRFSS, an estimated 85.8% of Michigan adults reported ever having been asked to fill out a form or personally asked by a health care professional about their medical family history. This proportion increased with age from those aged 18-24 years to those aged 55-64 years, and then decreased to those aged 75 years and older. (Graph 1)

Women were more likely than men (92.9% vs. 78.0%), and Whites were more likely than Blacks (86.9% vs. 79.3%) to have had a family history taken by a health care professional. (Graph 1) This proportion also increased by both education level and household income level (not shown).



Among those who had a family history taken by a health care professional, an estimated 61.2% of adults had discussed with a health care professional their risk for certain diseases or health problems based on their family history.



And among these individuals, an estimated 67.6% of Michigan adults have had a health care professional make recommendations based on their family history. (Graph 2) This proportion increased with age from 53.9% of those aged 18-24 years to 72.9% of those aged 55-64 years, then decreased to 60.2% of those aged 75 years and older.

Among those who had a doctor or health care professional make recommendations based on their family history, the most frequently reported recommendation was to change their diet (41.4%), followed by exercise more (32.2%), have routine tests for screening (31.9%), and stop smoking (18.6%).

Discussion

The family health history questions in Michigan surveys provide MDCH and others with important information regarding the **educational needs of providers and the public**. Over the past 4 years, the family health history questions have reflected the evolution of genomics concepts and application to public health. The 2004 BRFS questions provide valuable insight about provider practices, whereas current surveys focus on addressing individual beliefs and practices, and on estimating prevalence of family history of specific chronic diseases.

Knowledge gained from these population-based surveys can be used to tailor family health promotion messages in Michigan, and further increase providers' and public awareness of family history's role in health and chronic disease.

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