

## **Family History, Risk Perception and Risk Reduction Behaviors of Colorectal Cancer – Michigan Behavioral Risk Factor Survey, 2005**

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**Background and objectives:** Family history of colorectal cancer is a well-recognized risk factor for this disease. It has been hypothesized that individuals who have a family history of a chronic disease may be more aware of their increased risk of that disease, and thus, more motivated to make lifestyle changes that may prevent the disease, as compared to those without such family history. In 2005, family health history questions regarding colorectal cancer were included in the Michigan Behavioral Risk Factor Surveillance System (BRFSS). The purposes of these questions were to estimate the prevalence of family history of colorectal cancer among adults and to assess perception of personal colorectal cancer risk and willingness to make preventative behavioral changes.

**Methods:** BRFSS is comprised of state-based, random-digit-dialed telephone surveys of the non-institutionalized, U.S. civilian population aged  $\geq 18$  years. In addition to using the CDC core questionnaire, states are allowed to include additional questions to address state data needs. In 2005, Michigan added questions about family history of colorectal cancer to a randomly selected half ( $n = 5,826$ ) of the total sample. In addition to estimating the prevalence of respondents reporting a first degree relative with colorectal cancer, the added questions asked respondents about their perception of colorectal cancer risk, and whether they would make (or had made) any lifestyle changes in an attempt to prevent colorectal cancer if they learned they had a close family member with the disease.

**Results:** Seven percent of Michigan adults were estimated to have at least one immediate family member who had been diagnosed with colon or rectal cancer. This proportion increased with age and was lower among Hispanics compared with white non-Hispanics. When asked to identify the affected family member, more respondents reported a male relative as having the disease than a female relative. The majority of respondents perceived their risk of developing colon or rectal cancer to be low or very low (52.1%), and this proportion was higher among women than men (55.0% vs. 49.0%). Among those with a family history of colorectal cancer, 37.4% thought their disease risk was high or very high, as compared to only 4.6% of those without a diagnosed immediate family member. Among those who had at least one immediate family member with colon or rectal cancer, 55.6% reported that they had made some lifestyle changes to try and prevent themselves from getting the disease.

**Discussion/Conclusion:** The prevalence of family history of colorectal cancer in one or more first-degree relatives among Michigan adults (7.3%) has not been previously estimated. Respondents in this survey who reported a family history of colorectal cancer perceived their own risk of developing the disease higher than those without a family history. Heightened perceptions of risk may motivate some individuals to participate in health promotion or disease prevention behaviors. In this study, over half of respondents with a family history of colorectal cancer reported making a lifestyle change in an attempt to prevent the disease. Our findings support the utilization of family health history not only as a risk assessment tool, but also as a focal point from which to educate and motivate individuals to proactively participate in healthy lifestyle choices and disease screening and prevention efforts.