

Using a family history tool to prevent chronic diseases

Background: Family health history is not a new concept in medicine and public health, but it has been neglected by both patients and physicians. In the United States, the Surgeon General is trying to encourage people to learn about health problems that run in their families through the Family History Initiative, which recognizes that family health histories can independently predict the likelihood of future disease and identify the relatively small subset of families that accounts for most cases of chronic disease.

Family history is an important risk factor for common chronic diseases such as coronary artery disease, diabetes, asthma, osteoporosis and several cancers, and reflects the complex interaction of inherited genetic susceptibilities with shared cultural, environmental and behavioural factors. Cardiovascular disease is one example. Research in Utah that examined family history as a risk factor for early cardiovascular disease and hypertension found that the 14% of families who had a history of coronary artery disease (defined as 1 event in a small family or 1 early event in a large family) accounted for 72% of all early coronary artery disease events, and the 11% of families who had a history of stroke accounted for 86% of all early strokes.¹

Although 96% of Americans who responded to an annual mail survey on health issues in 2004 believed their "family history was important for their own health," only 30% actively collected this information.² And, according to an observational study, primary care physicians spend an average of 2.5 minutes discussing family health histories with their patients, most often at the time of new visits (50%) and much less often at

follow-up visits (22%).

To improve the collection and use of family health history in public health and primary care as a means of identifying patients at increased risk for certain common chronic diseases, members of the US Centers for Disease Control and Prevention convened a workshop for experts in many fields (e.g., cardiovascular disease, cancer, diabetes, asthma, behavioural sciences, economics, epidemiology, medical genetics, genetic counselling, preventive medicine and public health) with the purpose of identifying research priorities for evaluating how family health history can be brought to bear on the prevention of common chronic diseases. Outcomes of the workshop included suggested specifications for a family history tool that could be evaluated in different public and clinical settings and a recommendation for a public health campaign to encourage people to learn their family health history.³

These recommendations appear to have been taken to heart by the US Surgeon General, whose Family History Initiative includes a pilot Web-accessed tool, My Family Health Portrait (www.hhs.gov/familyhistory), which enables people to collect family histories for 6 diseases (coronary artery disease, stroke, diabetes, and colorectal, breast and ovarian cancer) and identify additional diseases that occur in their families.

Clinical management: Time constraints appear to be one of the barriers to the collection and interpretation of family health history in the clinical setting. Asking patients to complete a family health history questionnaire in advance of their medical appointment gives them time to

collect the information, saves time during the consultation and prompts physicians to discuss the information with their patients.



Prevention: A validated family history screening tool would enable classification of patients into risk groups (e.g., average, moderate and high) in order to guide and inform prevention activities. Patients at average risk (i.e., the risk level of the general population) could be encouraged to adhere to standard public health recommendations for maintaining good health. Those at moderate risk could be given personalized prevention recommendations, and patients at high risk might benefit from other interventions (e.g., aggressive risk factor modification, earlier screening tests or, possibly, genetic counselling).

Erica Weir
CMAJ

References

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