



# Family Health History

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*In every conceivable manner, the family is a link to our past, bridge to our future*

- Alex Haley

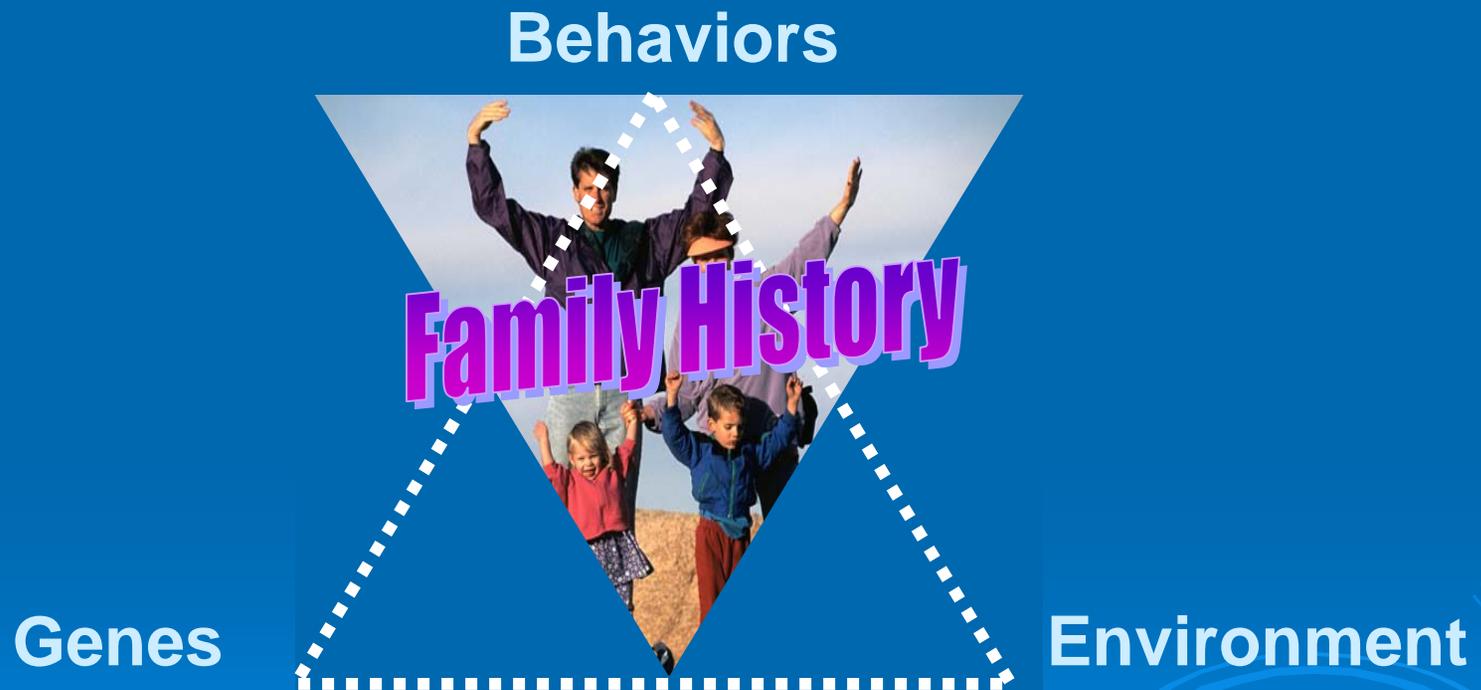
*The Most Practical Genomics Tool  
is...*

**Family History**



# Family History and Genomics

Family history helps capture the effects of these interactions on disease risk.



# MDCH Genomics

## Overall Desired Goal:

The integration and appropriate use of genomics/family history in public attitudes and provider practice leads to personal preventive behaviors and clinical management that will improve health outcomes

## *Two Desired Outcomes:*

- ❖ Public attitudes and behaviors toward family history
- ❖ Provider practice regarding collection and use of family history
  - *MDCH Cancer Registry: Enhancing Capacity*
  - *Health Plan: Examining Existing Data*
  - *Health System: Creating Data and Changing Practice*
  - *Michigan WISEWOMAN: Educate Providers and Public*

# Public Attitudes and Behaviors Toward Family History: 2005 BRFSS

- ❖ 66.4% of Michigan adults thought family health history was very important to personal health
- ❖ 37% of Michigan adults actively collect health information for purpose of family health history
- ❖ Focus on Family History of Colon Cancer
  - 7% of Michigan adults had immediate family member diagnosed with colorectal cancer
    - 37.4% thought their chances of getting colorectal cancer was high or very high (compared to 4.6% without the family history)
    - 55.6% reported making some lifestyle changes to try and prevent colorectal cancer

# Key Points for the Public

**It's time...  
know your  
family's  
health history.**



- Created by MDCH genomics educator
  - **Talk about it**
  - **Write it down**
  - **Pass it on!**

**Unlock your  
past for a  
healthier  
future.**



- **talk about it**
- **write it down**
- **pass it on**



## "My Family Health Portrait"



### Learning Your Family Health History is as easy as **1, 2, 3...**

Your family health history is a risk factor for diseases such as cancer, diabetes, and heart disease. If a disease runs in your family, you may have the most to gain from lifestyle changes and screening tests. Start collecting your family's health history by taking the following steps:

- 1 Collect health information on close family members by talking at family gatherings.
- 2 Write down your family health history and discuss it with your health professional.
- 3 Update your family history regularly and share it with family members.

The U.S. Surgeon General's Family History Initiative encourages all American families to learn more about their family health history. A new computerized tool, "My Family Health Portrait", makes it fun and easy for you to create a portrait of your family's health. It can be accessed for free and personal information is stored on your own computer. For more information, visit

<http://www.hhs.gov/familyhistory>



The U.S. Surgeon General's Family History Initiative



# Family Health History and Public Awareness

## ➤ Federal

- US Surgeon General's Family History Thanksgiving Campaign

**My FAMILY HEALTH PORTRAIT**  
 You can also fill out the form online at: <https://familyhistory.hhs.gov/>

Name: \_\_\_\_\_  
 Date: \_\_\_\_\_

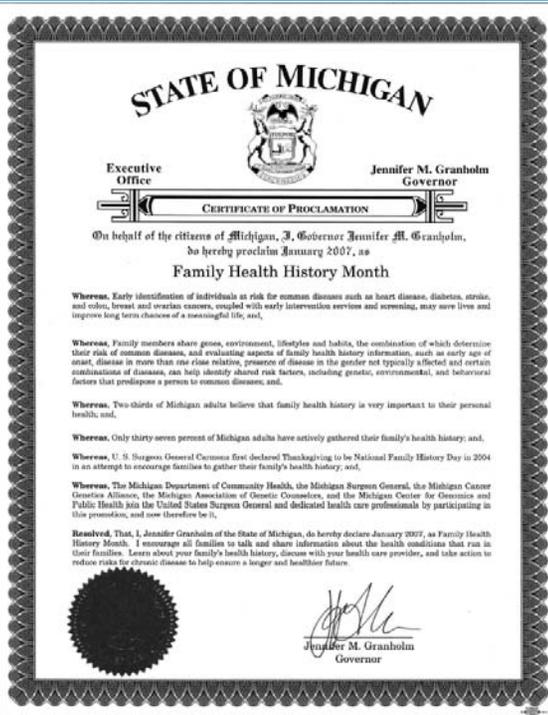
Grandmother Grandfather Grandmother Grandfather

Aunts/Uncles Mother Father Aunts/Uncles

Brothers/Sisters **You** Spouse/Partner

Your Children

[www.hhs.gov/familyhistory](http://www.hhs.gov/familyhistory)



## ➤ State

- Governor's Proclamation for Family Health History Month in January 2007

# Family History and Your Health Newsletters

❖ Developed and distributed quarterly since November 2004

❖ Focus on awareness of disease or risk factor month

- Number of hits to newsletters ~400-800/month



Recent Survey indicated:

- ❖ Almost 92% said newsletters were informative or very informative
- ❖ Almost 15% further disseminated the newsletter to 50 or more people

# Family History Fact Cards

- ❖ Developed in 2007 and distributed to public and health care providers
- ❖ Series of 6 cards covering general family history, asthma, cancer, diabetes, heart disease and osteoporosis



## Providers can use family health history to:



- ❖ Determine risk for disease based on:
  - Number of family members with the disease
  - The age when they were diagnosed
  - How relatives with disease are related to one another and to you
- ❖ Influence early disease detection
- ❖ Target and prioritize screening tests and lifestyle changes

# Public Perceptions of Provider Practice: 2004 BRFS

- ❖ **85.8%** Michigan adults reported to fill out a form or personally asked by health care professional about family health history
- ❖ Of those, **61.2%** had discussed risks for certain diseases or health problems based on family health history
- ❖ **67.6%** had health care professional make recommendations based on family health history (in order of frequency- change diet, routine screening, exercise more, smoking cessation)

# Cancer Registry: Enhancing Capacity for Cancer Genomics

## Michigan Cancer Registry Chart Audit of 853 charts reviewed from 2003 to 2004

- ❖ **82.5%** of charts documented the presence or absence of any family history of cancer
  - 89% were gender-specific in identifying affected relative
  - 82% were site-specific in the relative's diagnosis
  
- ❖ Among charts with a documented family history of cancer:
  - **94.3%** were missing information on the relative's age at diagnosis
  - 99.5% were missing information on the relative's date of diagnosis

MICHIGAN DEPARTMENT OF COMMUNITY HEALTH  
MICHIGAN CANCER SURVEILLANCE PROGRAM

PLEASE TYPE OR PRINT CANCER REPORT  NEW  UPDATE

1a. NAME OF PATIENT (FIRST)		1b. (MIDDLE)	1c. (LAST)	
2. NAME BEFORE FIRST MARRIED		3. ALIAS NAME		4. SOCIAL SECURITY NUMBER
5a. ADDRESS OF PATIENT AT DIAGNOSIS NUMBER AND STREET		5b. CITY AT DIAGNOSIS		5c. STATE AT DIAGNOSIS
5d. ZIP CODE AT DIAGNOSIS		6. SUPPLEMENTAL ADDRESS (SUAULT NAME OR APARTMENT COMPLEX)		
7. COUNTY AT DIAGNOSIS		8. DATE OF BIRTH (MM/DD/YYYY)		
9. BIRTHPLACE (STATE OR COUNTY)	10. SEX 1 - MALE 4 - TRANSGENDERAL 2 - FEMALE 9 - NOT STATED 3 - OTHER (SPELLE OUT)	11. RACE - AMERICAN INDIAN, BLACK, WHITE, ETC. (IF ASIAN SPECIFY NATIONALITY, I.E. CHINESE, FILIPINO, ASIAN INDIAN, ETC.)		12. HISPANIC ORIGIN 6 - YES 8 - NO 9 - UNKNOWN
13. MARITAL STATUS 1 - SINGLE 3 - SEPARATED 5 - WIDOWED 2 - MARRIED 4 - DIVORCED 9 - UNKNOWN		14a. OCCUPATION	14b. INDUSTRY	15. TOBACCO USE CURRENT USE <input type="checkbox"/> PREVIOUS <input type="checkbox"/> NEVER USED <input type="checkbox"/>
17. COMORBIDITIES (ICD-9-CM CODES)		16. FAMILY HISTORY OF CANCER? 16a. YES <input type="checkbox"/> NO <input type="checkbox"/> 16b. IF YES, IMMEDIATE FAMILY MEMBER? YES <input type="checkbox"/> NO <input type="checkbox"/> 16c. IF YES, SAME ANATOMICAL SITE? YES <input type="checkbox"/> NO <input type="checkbox"/>		18. ALCOHOL USE CURRENT USE <input type="checkbox"/> PRIOR USE <input type="checkbox"/> NEVER USED <input type="checkbox"/>
20. CLASS OF CASE 0 - ON HERE, IN ELSEWHERE 3 - RX ELSEWHERE 6 - OTHER 1 - ON & IN HERE 4 - ON HERE PRIOR 7 - PATH REPORT ONLY 2 - IN HERE 5 - ON AT AUTOPSY 8 - DEATH CERT ONLY		21. MEDICAL RECORD NUMBER		19. ACCESSION NUMBER AND SEQUENCE NUMBER
23. CASE FINDING SOURCE 10 - REPORTING HOSPITAL, NON 20 - PATH DEPT REVIEW 21 - SMAL DISCHARGE REVIEW 22 - DISCHARGE INDEX REVIEW 23 - RADIATION DEPT 24 - LAB REPORTS 25 - DISPENSARY CHENG 26 - DIAGNOSTIC RADIAL/RADIOLOGY 27 - TUMOR BOARD 28 - HOSPITAL REVIEW 29 - OTHER HOSPITAL SOURCE 30 - DR PATIENT CASE 40 - CONSULT ONLY/PATH ONLY (NOT ABSTRACTED BY REPORTING HOSPITAL) 50 - INDEPENDENT PATH LAB REPORT 60 - SURVIVAL HOME REPORTED 70 - CORONER'S OFFICE RECORD REVIEW 80 - DEATH CERT 90 - OTHER NON-REPORTING HOSPITAL SOURCE 95 - QUALITY CONTROL REVIEW 99 - UNKNOWN		24a. PRIMARY ANATOMICAL SITE  C _____  24b. PAIRED ORGANS 0 - NOT A PAIRED ORGAN 3 - ONE SIDE ONLY, NOS 1 - RIGHT 4 - BILATERAL INVOLVEMENT 2 - LEFT 9 - UNDESIGNED		
25a. CLINICAL, HISTOLOGICAL DIAGNOSIS - INCLUDE CELL TYPE AND CELL BEHAVIOR IF KNOWN		26. DATE OF HOSPITAL ADMIT (MM/DD/YYYY)		27. DATE OF HOSPITAL DISCHARGE (MM/DD/YYYY)
25b. TUMOR GRADE 1 - WELL DIFFERENTIATED 3 - POORLY DIFFERENTIATED 5 - T-CELL 7 - MLL CELL 9 - UNKNOWN, NOT STATED 2 - MOD. WELL DIFFERENTIATED 4 - UNDIFFERENTIATED/ANAPLASTIC 6 - B-CELL 8 - NK CELL (NATURAL KILLER CELL)		28. DATE OF INITIAL DIAGNOSIS (MM/DD/YYYY)		
29. METHOD OF DIAGNOSIS 1 - HISTOLOGY 4 - MICROSCOPY, VIX 6 - VISUALIZATION 8 - CLINICAL 2 - CYTOLOGY 5 - POSITIVE LAB/MARKER 7 - URIN 9 - UNKNOWN		30. NUMBER OF TUMORS (SINGLE PRIMARY)		

# Michigan Health Plan: Examining Charts for Provider Practice

- ❖ 221 charts reviewed (5 charts per provider for 50 primary care providers; most family practice)
- ❖ 72% of charts did not have race/ethnicity documented
- ❖ 88.7% of charts had documented family history
  - Only 3 charts with pedigree
  - Variability in how collected, who collected and specific information collected
- ❖ 79% documented relationship of affected
- ❖ 93% never documented age of onset

# Primary Care and Health Systems: Creating Data and Changing Practice

- ❖ 10 conditions identified which are related to top 10 causes of death in Michigan
- ❖ 2504 patient encounters prior to new form and 2461 patient encounters with new form
- ❖ New form captures positive and negative family history
  - **Negative family history increased across all fields with new form**
- ❖ **Statistically significant increase in use of each specific family history field with new form**
  - For colon cancer, 3 patients prior to new form vs. 175 patients with new form (OR 63.8)

The screenshot shows a web-based form titled "FH-Specific: DAVID PABLO WHITECOAT, MD". The form is divided into two tabs: "Family History - Specific" (selected) and "Family History - General". Under the "Family History - Specific" tab, there is a "Review All" button. The form contains ten sections, each for a different condition, with radio buttons for "yes" and "no", a "Reviewed" checkbox, and a "Last Value Recorded" field with a date. Each section also has a "Comment" field and two buttons: "Add To Family History" and "Add To Problem List".

Condition	Yes	No	Reviewed	Last Value Recorded	Date	Comment	Add To Family History	Add To Problem List
Diabetes Mellitus	<input checked="" type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	yes	06/28/2006	Mother at age 48	Yes	Yes
Coronary Artery Disease	<input checked="" type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	yes	06/28/2006		Yes	Yes
CAD Male - Age<55	<input checked="" type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	yes	06/28/2006		Yes	Yes
CAD Female - Age<65	<input type="radio"/>	<input checked="" type="radio"/>	<input type="checkbox"/>	no	06/28/2006		Yes	Yes
CVA / Stroke	<input checked="" type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	yes	06/28/2006	Father at age 60	Yes	Yes
Colon Cancer	<input type="radio"/>	<input checked="" type="radio"/>	<input type="checkbox"/>	no	06/28/2006		Yes	Yes
Prostate Cancer	<input type="radio"/>	<input checked="" type="radio"/>	<input type="checkbox"/>	no	06/28/2006		Yes	Yes
Breast Cancer	<input type="radio"/>	<input checked="" type="radio"/>	<input type="checkbox"/>	no	06/28/2006		Yes	Yes
Depression	<input checked="" type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	yes	06/28/2006		Yes	Yes
Anxiety Disorder	<input checked="" type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	yes	06/28/2006		Yes	Yes

At the bottom of the form, there are three buttons: "Prev Form (Ctrl+PgUp)", "Next Form (Ctrl+PgDn)", and "Close".

# Family Health History and Provider Education

- ❖ *Looking Back...Thinking Ahead: Applications of Family Health History in Primary Care*
  - **Ask** about family history
  - **Look** at family history and assess risks
  - **Act** by discussing family history, risk assessment, screening, appropriate referrals, and prevention with patients
- ❖ Wayne State University Medical School
- ❖ Professional Conferences
  - ❖ Michigan Association of Family Practice
  - ❖ Michigan Osteopathic Association



# Michigan WISEWOMAN: Existing Data Sources and Genomics Integration



## WISEWOMAN Health History

Date \_\_\_\_\_

Agency Name		MBCIS ID	
Last Name	First Name	Middle Initial	Birth Date

Please check ONE answer for each question:

1. Has a doctor, nurse, or other health care provider ever told you that you have:

- |                                  |                              |                             |                                 |
|----------------------------------|------------------------------|-----------------------------|---------------------------------|
| High Blood Pressure?             | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Unsure |
| High Cholesterol?                | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Unsure |
| Diabetes?                        | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Unsure |
| Heart Disease?                   | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Unsure |
| An Irregular Heartbeat or Pulse? | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Unsure |

2. Are you currently taking medicine for:

- |                      |                              |                             |                                 |
|----------------------|------------------------------|-----------------------------|---------------------------------|
| High Blood Pressure? | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Unsure |
| High Cholesterol?    | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Unsure |
| Diabetes?            | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Unsure |

3. Has your father, brother or son had a stroke or heart attack before age 55?

- Yes  No  Unsure

4. Has your mother, sister or daughter had a stroke or heart attack before age 65?

- Yes  No  Unsure

5. Have you ever had a heart attack, stroke, or mini-stroke?  Yes  No  Unsure

**Physical Activity Restriction Questionnaire (PAR-O)**

- |   |                              |                             |
|---|------------------------------|-----------------------------|
| 1. Have you ever been told by a doctor, nurse or other health care provider to limit physical activity to less than a brisk walk? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 2. Do you feel chest discomfort when physically active or resting?  | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 3. Do you have bone, back, or joint pain that could be made worse by walking more?  | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 4. Do you know of any reason why you should not exercise without a doctor's permission?   | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

Please list all prescription medications you are currently taking:

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Family history question developed by MDCH cardiovascular section

Evidence-based question

Simple and effective question

Highlights two high risk factors

- First degree relative
- Early age of onset

Descriptive characteristics of Michigan WISEWOMAN participants, October 2001 to April 2006.	
Variables	% (n=7323)
<b>Race</b>	
Non-Hispanic white	85.8
Non-Hispanic black	6.7
Other*	7.5
<b>Ethnicity</b>	
Hispanic	4.8
<b>Education level</b>	
Less than high school	10.7
High school graduate	59.3
Some college	21.1
College graduate	9.0
<b>Self-reported health history</b>	
High blood pressure	31.1
High cholesterol	27.1
Diabetes	9.1
Heart disease	3.6
Irregular heartbeat or pulse	10.3
Heart attack, stroke, or mini-stroke	4.1
Current smoker	36.8
<b>Current health status by examination</b>	
Overweight (BMI 25-29)	28.1
Obese (BMI $\geq$ 30)	44.8
Hypertension (SPB $\geq$ 140 or DBP $\geq$ 90)	22.4
High cholesterol (total cholesterol $\geq$ 200)	56.3
Low HDL (HDL $<$ 40)	17.3
<b>Family history of heart attack or stroke*</b>	
Father or brother before age 55	21.6
Mother or sister before age 65	19.6
Father/brother and/or mother/sister	34.5
Father/brother history unknown	7.2
Mother/sister history unknown	5.4

➤ 34.5% have at least one first degree relative with early onset stroke or heart attack

➤ Of those with family history, **significant risks for all other cardiovascular risk factors**, in comparison to those without family history

# Educational materials for WISEWOMAN clients with family history

## Heart Attack and Stroke: Does Family Health History Matter?

### What is a Family Health History?

Family health history refers to health information about you and your close relatives. Family history is an important risk factor for heart attacks and strokes.



### Why is knowledge of your family health History important?

Family members share common habits, lifestyles and environments. They also share inherited traits that are passed through the generations. The family health history reflects all of these shared influences. Family traits and common behaviors can be risk factors for heart attacks and strokes.



The WISEWOMAN Health History Form asks if your family members have had a heart attack or stroke. This question is important for you and your health care provider. Awareness of your family health history can help identify your chance of having a heart attack or stroke. If you have a family history of heart attacks and/or strokes, proper screening and a healthy lifestyle are even more important for you than for someone without a similar family history. A healthy lifestyle and appropriate medical care can help prevent a heart attack and stroke.

### Why is knowledge of your family health history important?

Recent surveys have shown that most people seem to know that family health history is important. However, only *one-third* have tried to gather information from their relatives to develop a family health history. Collecting information is the first step to determine if you and your family are at risk. When collecting your family health history, it is important to remember to ask your family members about the specific age when the heart attack or stroke happened. Also, remember to include family members who have died. Record their ages, general or exact if known, and causes of death, noting if the cause of death is unknown or unexplained.



## Are You and Your Family at Risk?



Your collected family health history holds important clues about your risk for a heart attack and/or stroke. If you identify family members who have had a heart attack and/or stroke, there are three key questions to consider:

-  **What is the person's relationship to you?**
  - ✓ If you find that the family member is a parent, sibling, or child, this would be a risk factor. Risks are lower for more distant relatives, such as cousins.
-  **What was the specific age when he/she had a heart attack and/or stroke?**
  - ✓ If your father, brother, and/or son had a heart attack or stroke **before 55 years of age**, this would be a risk factor.
  - ✓ If your mother, sister, and/or daughter had a heart attack and/or stroke **before 65 years of age**, this would be a risk factor.
-  **Have other family members had a heart attack and/or stroke?**
  - ✓ If two or more family members on the same side of the family have had a heart attack and/or stroke, this would be a risk factor.

Even if you did not identify a family member who has had a heart attack or stroke, remember that chronic diseases, such as heart disease that can lead to heart attack and/or stroke, are very common. Everyone has a chance of developing a chronic disease, so **healthy lifestyle choices are important regardless of your family history!**



## What Can You Do?

Although you may have risk factors based on your family history, this does **not** necessarily mean that you will have a heart attack or stroke. However, it is even more important for you to take the following steps:



- Share this information with your WISEWOMAN and other health care providers.
- Be screened in WISEWOMAN yearly.
- Take your medications as directed.
- Follow screening recommendations.
- Pursue a healthy lifestyle.

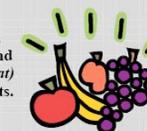
Developing your family health history is one of the first of many important steps on the road to a healthy lifestyle. Your future steps are under your control, and the WISEWOMAN Program is here to help. Especially if your family health history places you at risk, please remember:

"Knowledge is power. Having your medical family history allows you to take control of your health and learn about your options, such as early detection or preventative steps."

—Barbara Petersen, Genetic Counselor

### WHAT IS A HEALTHY LIFESTYLE?

- Be smoke-free.
- Be physically active.
- Eat whole grains, fruits, vegetables, and (non or low-fat) dairy products.



For more information on family health history, genetics, and chronic disease risk factors, visit [www.MIGeneticsConnection.org](http://www.MIGeneticsConnection.org) or call the Michigan Department of Community Health toll-free at 1-866-852-1247.