



# 2002 Behavioral Risk Factor Survey



Health risk behaviors in  
Berrien County compared to  
Michigan and national figures



# Acknowledgements

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**Please see the inside of the back cover for special acknowledgements of financial contributors.**

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# Letter to Citizens of Berrien County

To the citizens of Berrien County:

Health assessment is one of the three core functions of public health. At the local level, health assessment is centered on vital records such as birth and death certificate information. Analyses of these data sources have produced results that describe such things as maternal/child health, infant mortality, and overall mortality. There are limited sources of health data that provide information on health behaviors and morbidity in the county. This is why the Berrien County Health Department administered a Behavior Risk Factor Survey (BRFS). This survey was conducted to give a sense of the behaviors (smoking, obesity, lack of exercise) that lead to negative health outcomes and to produce prevalence estimates for certain diseases.

On an annual basis, the Centers for Disease Control and Prevention (CDC) conduct a similar survey as part of their Behavioral Risk Factor Surveillance System (BRFSS). Each state is responsible for collecting their own data through the use of surveys that are then sent to CDC to collate for national estimates. The surveys are random-digit-dial telephone interviews that are conducted throughout a given calendar year. In 2001, Michigan surveyed 3,830 individuals for the statewide BRFS. In 2002, the Berrien County Health Department contracted with the Institute for Public Policy and Social Research (IPPSR) at Michigan State University (MSU) to survey approximately 400 Berrien County residents. Berrien County residents who were surveyed for the state BRFS were added to the Berrien County BRFS data, yielding a total of 507 Berrien County citizens surveyed for this project.

Results of the Berrien County BRFS closely fall in line with the findings at the state and national level—with a few surprises. The lack of health care coverage (health insurance, prepaid plans such as HMO's, or government plans such as Medicare) seems to be a main contributor to *access* problems in Berrien County. The uninsured estimate for Berrien County was significantly higher than Michigan's or the nation's. Dental insurance of any kind was found to be lacking to nonexistent in certain sub-groups. Berrien County BRFS results also concur with vital records in the identification of a large health disparity between African Americans and whites in the County. This gap is very apparent with health insurance and sexual behavior indicators.

We are very grateful to the Berrien County residents who took the time to answer the survey questions over the phone. The results of this survey will be used by the Health Department and various other health and human service agencies in program planning initiatives. Thank you for your participation in this important public health endeavor.

Sincerely,

Laura E. Miles, M.P.H  
Epidemiologist  
Berrien County Health Department

# 2002 Behavioral Risk Factor Survey

## Methodology

Berrien County Health Department contracted with the Institute for Public Policy and Social Research (IPPSR) at Michigan State University (MSU) to 1) obtain a sample of random telephone numbers, 2) conduct the telephone interviews, and 3) make some initial data adjustments (data weighting). The survey itself was a hybrid of the 2002 Michigan survey with certain modules added and deleted. Data was collected between October 4, 2002, and January 15, 2003. The Behavior Risk Factor Survey (BRFS) is a survey of adults aged 18 years and older.

Every year a small percentage of Berrien County residents are surveyed through Michigan's BRFS efforts. In this project, 404 Berrien County residents were interviewed with the Berrien hybrid survey, and 103 Berrien County residents were interviewed through the Michigan survey as part of the state's efforts. Responses from both surveys were collated together, making the overall Berrien sample 507. Certain questions were asked to all 507 while other questions were only posed to 404 based on what survey was used.

The sample was created by using a random-digit-dial sampling procedure. African Americans were over-sampled in the 404 Berrien County specific sample to ensure the ability to do racial comparisons. Once the data was collected, it was weighted based on the probability of the telephone number being selected and the probability of an individual being selected in a given household. The overall response rate was 44.6%.

Estimates calculated are based on respondents who answered the question. Those who refused or did not know were excluded from the analysis. Subgroup estimates in the stratification analyses are based on each given subgroup independent of other subgroups within that particular demographic.

# Perceived Health Status

## Percentage of respondents who said their overall health was fair or poor

Berrien Estimate (%)	Berrien 95% Confidence Interval (%)	Michigan Estimate (%)	Michigan 95% Confidence Interval (%)	National Estimate (%)
18.8	3.4	13.5	1.1	14.3

### Berrien Estimate Stratified

Demographic	Estimate (%)	95% Confidence Interval (%)
<b>Age</b>		
18-24 years	8.6	7.2
25-34 years	11.7	7.2
35-44 years	6.6	4.7
45-54 years	22.9	8.4
55-64 years	20.0	9.7
65-74 years	40.8	13.8
≥75 years	36.2	13.7
<b>Gender</b>		
Male	11.5	4.1
Female	25.2	5.3
<b>Race</b>		
White	17.9	3.9
Black	25.2	8.1
<b>Education</b>		
Less than high school	21.3	9.3
High school graduate	27.3	6.0
Some college	9.5	5.6
College graduate	9.2	5.4
<b>Income</b>		
<\$20,000	48.8	10.6
\$20,000-\$34,999	22.5	7.5
\$35,000-\$49,999	9.5	7.2
\$50,000-\$74,999	4.2	4.6
≥\$75,000	1.3	2.6

Survey respondents were asked to rate their overall health based on the following criteria: excellent, very good, good, fair, or poor. Perceived health status is a subjective measure that may be greatly influenced by the respondents' health behaviors or disease morbidity at the time of questioning. CDC uses this question because it can be used to make inferences on a population's disease morbidity or physical disabilities.

A better perceived health status was seen with decreasing age, increasing education, and increasing income. Females had a poorer perceived health status than males, and African Americans had a poorer perceived health status than whites.

# Physical Activity

## Percentage of respondents who did not participate in any physical activities

Berrien Estimate (%)	Berrien 95% Confidence Interval (%)	Michigan Estimate (%)	Michigan 95% Confidence Interval (%)	National Estimate (%)
31.8	4.1	24.3	1.4	24.4

### Berrien Estimate Stratified

Demographic	Estimate (%)	95% Confidence Interval (%)
<b>Age</b>		
18-24 years	17.5	9.9
25-34 years	24.1	9.2
35-44 years	26.4	8.4
45-54 years	26.0	8.8
55-64 years	48.5	12.1
65-74 years	48.0	13.8
≥75 years	44.7	14.2
<b>Gender</b>		
Male	27.8	5.7
Female	35.6	5.8
<b>Race</b>		
White	30.3	4.6
Black	36.6	8.9
<b>Education</b>		
Less than high school	43.4	11.1
High school graduate	34.3	6.3
Some college	26.7	8.5
College graduate	23.9	8.0
<b>Income</b>		
<\$20,000	54.7	10.0
\$20,000-\$34,999	37.8	8.7
\$35,000-\$49,999	33.9	11.8
\$50,000-\$74,999	18.1	8.9
≥\$75,000	13.3	7.7

Physical activity was measured by the following question: *during the past month, other than your regular job, did you participate in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise.*

Respondents who answered “no” to this question were classified as physically inactive.

Physical activity has multiple positive effects on an individual’s physical and psychosocial life. Regular physical activity reduces the risk of many chronic diseases such as coronary heart disease, certain cancers, and diabetes. It also has been associated with prolonged life and enhances the quality of life at all ages.

Physical activity is an important health indicator in the U.S. Department of Health and Human Services *Healthy People 2010* initiative. The federal target is to reduce the proportion of adults who engage in no leisure-time physical activity to 20% by 2010.

Physical activity increased with decreasing age, increasing education, and increasing income. Physical inactivity was seen more in females compared to males and African Americans compared to whites.

# Obesity

## Percentage of respondents who were categorized as obese

Berrien Estimate (%)	Berrien 95% Confidence Interval (%)	Michigan Estimate (%)	Michigan 95% Confidence Interval (%)	National Estimate <sup>a</sup> (%)
21.0	3.7	25.2	1.4	20.1

### Berrien Estimate Stratified

Demographic	Estimate (%)	95% Confidence Interval (%)
<b>Age</b>		
18-24 years	5.3	5.8
25-34 years	5.6	5.4
35-44 years	20.2	7.7
45-54 years	34.1	10.3
55-64 years	39.3	12.3
65-74 years	28.0	12.4
≥75 years	10.9	9.0
<b>Gender</b>		
Male	19.5	5.1
Female	22.7	5.3
<b>Race</b>		
White	22.0	4.3
Black	18.3	7.4
<b>Education</b>		
Less than high school	21.1	9.2
High school graduate	24.4	6.1
Some college	25.5	8.6
College graduate	9.4	5.6
<b>Income</b>		
<\$20,000	29.7	10.4
\$20,000-\$34,999	22.0	7.5
\$35,000-\$49,999	23.3	10.7
\$50,000-\$74,999	22.9	9.8
≥\$75,000	15.9	8.6

Respondents were classified as obese based on their self-reported heights and weights. These two measures were used to calculate a body mass index (BMI). Based on BMI calculations, CDC uses the following criteria for classification: BMI <25.0 = Normal, BMI 25.0 through 29.9 = Overweight, and BMI ≥30.0 = Obese. Pregnant women were excluded in this estimate.

Obesity is a major risk factor for coronary heart disease, certain cancers, stroke, diabetes, and many other chronic conditions. *The Healthy People 2010* target is to reduce the proportion of adults who are obese to 15% by 2010. In 2001, Michigan had the 3<sup>rd</sup> highest obesity prevalence rate in the nation. Only Mississippi and West Virginia had higher obesity rates.

The average BMI for Berrien County respondents was 26.8 ± 0.26 – overweight according to CDC's classifications. Stratified estimates for Berrien County obesity are inflated (large confidence intervals) due to low numbers in a given demographic category, therefore making inferences difficult. In Michigan, African Americans had a higher obesity percentage than whites. The lower percent for African Americans in the Berrien results is most likely due to an inflated estimate rather than actuality.

Respondents to the Berrien BRFSS were asked several questions regarding their weight. 41% of respondents stated that they were trying to lose weight. When asked about diet and losing weight, 18.5% were doing so by eating less calories, 27.9% were doing so by eating less fat, and 35.1% were doing so by eating less of both calories and fat. When asked about exercise and losing weight, 70.0% were doing so with exercise.



# Healthcare Coverage

## Percentage of respondents 18-64 years old who had no health care coverage

Berrien Estimate (%)	Berrien 95% Confidence Interval (%)	Michigan Estimate (%)	Michigan 95% Confidence Interval (%)	National Estimate (%)
21.3	4.0	11.7	1.3	14.1

### Berrien Estimate Stratified

Demographic	Estimate (%)	95% Confidence Interval (%)
<b>Age</b>		
18-24 years	*	*
25-34 years	50.0	15.9
35-44 years	37.7	12.2
45-54 years	20.0	11.7
55-64 years	*	*
65-74 years	*	*
≥75 years	*	*
<b>Gender</b>		
Male	29.9	8.0
Female	21.7	8.4
<b>Race</b>		
White	23.8	6.4
Black	41.9	14.7
<b>Education</b>		
Less than high school	26.7	15.8
High school graduate	37.5	10.6
Some college	27.5	12.2
College graduate	10.0	7.6
<b>Income</b>		
<\$20,000	28.6	19.3
\$20,000-\$34,999	22.9	11.9
\$35,000-\$49,999	16.1	12.9
\$50,000-\$74,999	24.2	14.6
≥\$75,000	32.7	12.7

Respondents were asked if they had any kind of health care coverage including health insurance, prepaid plans such as HMO's, or government plans such as Medicare. Those 65 years and older were not included in the analysis because Medicare provides an opportunity for medical care when needed.

The *Healthy People 2010* target is to increase the proportion of persons with health insurance to 100% by 2010.

There is a significant difference between the Berrien County overall estimate of uninsured and Michigan or the nation. Those without health care coverage in Berrien County tended to be younger, African American, less educated, and have a lower income. The two main reasons why respondents were without health care coverage were lost jobs/changed employers or couldn't afford to pay the premiums.

In Berrien County, 27.4% of respondents did not have one person who they could identify as their personal doctor or health care provider. Even with the higher prevalence estimates of uninsured and without a physician, only 5.2% of respondents could not get medical care in the previous year before questioned. Of that 5.2%, the main reason for not getting care was cost – not transportation, distance, child-care, or long waits.

# Dental Insurance

## Percentage of respondents who did not have any kind of dental insurance

Berrien Estimate (%)	Berrien 95% Confidence Interval (%)	Michigan Estimate (%)	Michigan 95% Confidence Interval (%)	National Estimate (%)
54.6	5.4	n/a	n/a	n/a

### Berrien Estimate Stratified

Demographic	Estimate (%)	95% Confidence Interval (%)
<b>Age</b>		
18-24 years	58.3	19.7
25-34 years	58.3	12.5
35-44 years	31.4	12.7
45-54 years	41.2	11.7
55-64 years	60.9	14.1
65-74 years	59.0	15.4
≥75 years	87.5	10.2
<b>Gender</b>		
Male	54.7	8.0
Female	54.4	7.3
<b>Race</b>		
White	53.0	6.4
Black	64.0	10.1
<b>Education</b>		
Less than high school	78.8	11.1
High school graduate	56.6	8.1
Some college	35.2	12.7
College graduate	47.4	11.1
<b>Income</b>		
<\$20,000	92.2	6.6
\$20,000-\$34,999	55.7	11.0
\$35,000-\$49,999	39.4	16.7
\$50,000-\$74,999	34.4	16.5
≥\$75,000	21.1	10.6

Very few sources of data on oral health exist at the community level. Respondents were asked six oral health related questions to give some insight into the dental health of Berrien County residents.

A large percentage (54.6%) of respondents said they did not have dental insurance of any type. The lack of dental coverage was especially high among African Americans, less educated, and those with a low income. 92% of individuals with an income of <\$20,000 (22.3% of respondents providing an income) had no dental insurance.

Only 69.4% of respondents had their teeth cleaned by a dentist or dental hygienist in less than one year before being questioned. 30.6% of respondents said they had their teeth cleaned longer than a year ago or never had their teeth cleaned.

Even with 30.6% of respondents not on a regular checkup schedule, only 6.2% said they had problems getting dental care when needed in the past year. Of this 6.2%, the main barrier to dental care was cost – not transportation, distance, child-care, or long waits.

# Smoking

## Percentage of respondents who were classified as *current* smokers

Berrien Estimate (%)	Berrien 95% Confidence Interval (%)	Michigan Estimate (%)	Michigan 95% Confidence Interval (%)	National Estimate (%)
23.7	3.7	24.1	1.4	23.0

### Berrien Estimate Stratified

Demographic	Estimate (%)	95% Confidence Interval (%)
<b>Age</b>		
18-24 years	40.4	12.7
25-34 years	25.6	9.4
35-44 years	25.7	8.4
45-54 years	20.8	8.1
55-64 years	24.6	11.2
65-74 years	22.0	11.5
≥75 years	4.2	5.7
<b>Gender</b>		
Male	23.8	5.5
Female	23.9	5.1
<b>Race</b>		
White	24.0	4.3
Black	25.7	8.1
<b>Education</b>		
Less than high school	41.2	11.7
High school graduate	28.4	6.0
Some college	22.9	8.0
College graduate	4.6	3.9
<b>Income</b>		
<\$20,000	31.9	9.4
\$20,000-\$34,999	33.3	8.4
\$35,000-\$49,999	17.7	9.5
\$50,000-\$74,999	7.0	6.0
≥\$75,000	14.5	7.9

Respondents were classified as current smokers based on the following criteria:

- 1) Smoked at least 100 cigarettes in lifetime
- 2) Smoke every day or some days.

Smoking causes heart disease, certain cancers, and chronic lung diseases. In Berrien County, diseases associated with smoking are some of the County's leading causes of mortality and morbidity. Heart disease is the leading cause of death; lung and bronchus cancer are the leading causes of cancer mortality; and chronic lower respiratory disease is the 5<sup>th</sup> leading cause of death in Berrien County. Congestive heart failure, bacterial pneumonia, and chronic obstructive pulmonary disease are the three leading causes of preventable hospitalization in Berrien County.

The *Healthy People 2010* target is to decrease the proportion of adults 18 years and older who smoke to 12% by 2010.

Berrien County smokers tended to be less educated and of low income. There were no major differences between male/female and white/black smokers. 18-24 year olds had the highest smoking percentages, but most other age groups had similar smoking percentages.

Of the respondents classified as a current smoker, the average age when they first smoked a cigarette (even just one puff) was 15 years old, and the average age they started smoking regularly was 19 years old. 50.6% of current smokers stopped smoking for one day or longer because they were trying to quit smoking.

# Diabetes

## Percentage of respondents who have ever been told by a physician that they had diabetes

Berrien Estimate (%)	Berrien 95% Confidence Interval (%)	Michigan Estimate (%)	Michigan 95% Confidence Interval (%)	National Estimate (%)
11.3	2.8	8.1	0.8	6.7

### Berrien Estimate Stratified

Demographic	Estimate (%)	95% Confidence Interval (%)
<b>Age</b>		
18-24 years	1.7	3.4
25-34 years	9.6	6.3
35-44 years	1.0	1.9
45-54 years	12.5	6.6
55-64 years	19.7	9.6
65-74 years	27.5	12.2
<sup>3</sup> 75 years	19.1	11.2
<b>Gender</b>		
Male	9.6	3.7
Female	12.9	4.0
<b>Race</b>		
White	10.3	3.1
Black	16.8	6.9
<b>Education</b>		
Less than high school	9.2	6.5
High school graduate	13.0	4.5
Some college	4.8	4.1
College graduate	14.8	6.7
<b>Income</b>		
<\$20,000	17.9	7.7
\$20,000-\$34,999	21.7	7.4
\$35,000-\$49,999	1.6	3.1
\$50,000-\$74,999	6.9	5.9
≥\$75,000	4.0	4.4

Respondents were asked whether they had ever been told by a physician that they had diabetes. Females who had been told they had diabetes during a pregnancy (gestational diabetes) were not labeled as diabetic. This question was asked to obtain an estimate on the percentage of people who have diabetes in a particular time frame (prevalence rate).

Diabetes is the 5<sup>th</sup> leading cause of preventable hospitalization and the 6<sup>th</sup> leading cause of mortality in Berrien County. There were 340 years of potential life lost in 2001 due to premature deaths associated with diabetes in Berrien County.

The average age when respondents were told they had diabetes was 46 years old. 32.4% of respondents with diabetes were taking insulin, and 67.3% were taking oral medication to manage their disease. On the average, respondents with diabetes checked their blood sugar level 1.5 times a day.

72.7% of diabetic respondents had never taken a class in diabetes management.

# Asthma

## Percentage of respondents who have ever been told by a physician that they had asthma

Berrien Estimate (%)	Berrien 95% Confidence Interval (%)	Michigan Estimate (%)	Michigan 95% Confidence Interval (%)	National Estimate (%)
13.9	3.0	13.0	1.1	11.8

### Berrien Estimate Stratified

Demographic	Estimate (%)	95% Confidence Interval (%)
<b>Age</b>		
18-24 years	8.8	7.3
25-34 years	20.7	8.8
35-44 years	9.4	5.6
45-54 years	15.6	7.3
55-64 years	20.6	10.0
65-74 years	11.8	8.8
≥75 years	8.3	7.8
<b>Gender</b>		
Male	12.9	4.2
Female	15.2	4.3
<b>Race</b>		
White	15.1	3.6
Black	8.8	5.2
<b>Education</b>		
Less than high	14.5	7.9
High school graduate	15.7	4.9
Some college	18.4	7.5
College graduate	6.4	4.6
<b>Income</b>		
<\$20,000	16.0	7.4
\$20,000-\$34,999	18.5	7.0
\$35,000-\$49,999	9.8	7.5
\$50,000-\$74,999	15.3	8.3
≥\$75,000	5.3	5.1

Respondents were asked whether or not they have ever been told by a physician that they had asthma. Like diabetes, this question was asked to obtain a prevalence measure on asthma in Berrien County.

Asthma is a chronic condition characterized by wheezing, coughing, and breathing difficulties. This inflammatory disorder is the 6<sup>th</sup> leading cause of preventable hospitalizations in Berrien County and the 4<sup>th</sup> leading cause of preventable hospitalizations in Michigan. In 2000, there were 175 asthma-related hospitalizations in Berrien County – 46% of these hospitalizations were among children under 18 years of age.

Emergency department data suggest that asthma morbidity is greatest among African American children aged 0-14 years.

Prevalence data on asthma collected through the Behavior Risk Factor Survey does not provide any information on children – identified as the high-risk population through other data sources.

There are no clear differences in asthma estimates between demographic groups. Small numbers produce estimates with large confidence intervals thus making inferences difficult.

Of the respondents who have been told by a physician that they had asthma, 75.8% still had the condition when questioned.

# Alcohol Consumption

## Percentage of respondents who were classified as binge drinkers

Berrien Estimate (%)	Berrien 95% Confidence Interval (%)	Michigan Estimate <sup>a</sup> (%)	Michigan 95% Confidence Interval (%)	National Estimate (%)
11.6	2.8	16.8	1.3	7.3

### Berrien Estimate Stratified

Demographic	Estimate (%)	95% Confidence Interval (%)
<b>Age</b>		
18-24 years	*	*
25-34 years	50.0	15.9
35-44 years	37.7	12.2
45-54 years	20.0	11.7
55-64 years	*	*
65-74 years	*	*
≥75 years	*	*
<b>Gender</b>		
Male	29.9	8.0
Female	21.7	8.4
<b>Race</b>		
White	23.8	6.4
Black	41.9	14.7
<b>Education</b>		
Less than high school	26.7	15.8
High school graduate	37.5	10.6
Some college	27.5	12.2
College graduate	10.0	7.6
<b>Income</b>		
<\$20,000	28.6	19.3
\$20,000-\$34,999	22.9	11.9
\$35,000-\$49,999	16.1	12.9
\$50,000-\$74,999	24.2	14.6
≥\$75,000	32.7	12.7

Respondents were classified as binge drinkers if they drank 5 or more drinks on one occasion in the previous 30 days upon questioning. Respondents were also classified as heavy drinkers if they drank 60 or more alcoholic drinks in the past 30 days upon questioning. An alcoholic drink is classified as 1 can or bottle of beer, 1 glass of wine, 1 can or bottle of wine cooler, 1 cocktail, or 1 shot of liquor.

Alcohol is associated with several poor health outcomes, and is a leading cause of unintentional injuries such as motor vehicle accidents, and intentional injuries such as domestic violence. According to the Michigan Uniform Crime Report, there were 1,141 Berrien County arrests for driving under the influence of alcohol/narcotics in 2001 – approximately 15% of all 2001 arrests in the county.

The *Healthy People 2010* target is to decrease binge drinking among adults 18 years and older to 6% by 2010.

There were more respondents classified as binge drinkers (n=58) than heavy drinkers (n=28). Certain stratification levels had too few respondents, so meaningful estimates could not be calculated. Many of the stratified estimates have large confidence intervals, making the estimates less reliable. The main trend seen is that binge drinkers tend to be male versus female, and African American versus white.

\* Frequency too small to produce a meaningful estimate  
a: Michigan estimates adjusted for gender differences

# HIV Testing

## Percentage of respondents (<65 years old) who have ever been tested for HIV

Berrien Estimate (%)	Berrien 95% Confidence Interval (%)	Michigan Estimate (%)	Michigan 95% Confidence Interval (%)	National Estimate <sup>a</sup> (%)
39.3	4.8	44.6	1.8	45.7

### Berrien Estimate Stratified

Demographic	Estimate (%)	95% Confidence Interval (%)
<b>Age</b>		
18-24 years	42.9	13.0
25-34 years	77.1	9.0
35-44 years	39.2	9.5
45-54 years	18.1	7.8
55-64 years	16.1	9.6
<b>Gender</b>		
Male	35.0	6.6
Female	43.8	7.0
<b>Race</b>		
White	33.1	5.4
Black	70.4	9.0
<b>Education</b>		
Less than high school	24.1	11.4
High school graduate	37.8	7.4
Some college	43.8	10.3
College graduate	45.9	10.6
<b>Income</b>		
<\$20,000	37.5	11.9
\$20,000-\$34,999	51.8	10.7
\$35,000-\$49,999	39.1	14.1
\$50,000-\$74,999	29.4	10.8
≥\$75,000	39.7	11.6

As of January 1, 2004, there are 182 reported Berrien County residents living with HIV/AIDS. Of the 182, 50 (28%) are Non-Hispanic White and 121 (67%) are Non-Hispanic Black and 10 (6%) are Hispanic. Importantly this racial comparison demonstrates reported cases and does not include unreported individuals living with HIV. Berrien County currently has the highest estimated HIV prevalence rate in the state of Michigan. The three leading risk factors identified were heterosexual sex, male-male sex, and injecting drug use.

Respondents less than 65 years old were asked if they have ever been tested for HIV. HIV testing due to blood donations was not used in this analysis.

Sexually active individuals made up approximately 83% of the respondents less than 50 years old. Of these sexually active respondents, 9.5% had two or more sexual partners. Only 31.8% of the sexually active used a condom the last time they had sex. Of those who used a condom, 32.1% used it to prevent pregnancy, 9.6% used it to prevent diseases, and 55.6% used it for both reasons.

Respondents who claimed they were tested for HIV stated several reasons for getting tested. 33.7% stated that they got an HIV test because it was part of a routine medical check-up, 21.4% stated that the test was required, 7.9% stated that it was done because they were pregnant. Other reasons listed were the following: thought you may have been exposed (sex or drug use), or worried you may have given the virus to someone else.

a: 2000 estimate



# Colorectal Cancer Screening

Percentage of respondents (>50 years old) who did not have the appropriate colorectal tests

Berrien: No Blood Stool Test (± 95% CI)	Michigan: No Blood Stool Test (± 95% CI)	National: No Blood Stool Test	Berrien: No Sigmoid or Colonoscopy (± 95% CI)	Michigan: No Sigmoid or Colonoscopy (± 95% CI)	National: No Sigmoid or Colonoscopy
61.2 ± 6.7	46.5 ± 2.4	55.1	53.5 ± 6.8	44.9 ± 2.4	51.9

## Berrien Estimates Stratified

Demographic	No Blood Stool Test ± 95% CI	No Sigmoid or Colonoscopy ± 95% CI
<b>Age</b>		
50-59 years	67.5±10.1	71.1±9.8
60-69 years	61.4±12.6	45.6±12.9
≥70 years	51.6±12.4	37.5±11.9
<b>Gender</b>		
Male	65.3±9.4	65.7±9.4
Female	57.1±9.5	42.9±9.5
<b>Race</b>		
White	59.9±7.5	55.8±7.6
Black	70.8±18.2	50.0±20.9
<b>Education</b>		
Less than high school	74.2±15.4	67.7±16.5
High school graduate	62.2±11.1	51.4±11.4
Some college	66.7±13.8	48.9±14.6
College graduate	46.2±13.5	53.8±13.5
<b>Income</b>		
<\$20,000	48.6±16.6	42.9±16.4
\$20,000-\$34,999	69.4±12.9	48.0±13.8
\$35,000-\$49,999	69.0±16.8	55.2±18.1
\$50,000-\$74,999	36.4±20.1	34.8±19.5
≥\$75,000	60.7±18.1	81.5±14.7

Respondents aged 50 years and older were asked if they ever had a blood stool test or a sigmoidoscopy or colonoscopy test to screen for colorectal cancer.

Colorectal cancer is the 3<sup>rd</sup> leading cause of cancer death in Berrien County. From 1990 to 2000, Berrien County averaged 105 new cases of colorectal cancer per year. During the same 11-year period, there was an average of 39 deaths due to colorectal cancer in Berrien.

The blood stool test identified in the questionnaire is equivalent to a fecal occult blood test (FOBT).

There are two screening targets for the *Healthy People 2010* initiative. First, of those 50 years and older, 50% should have a FOBT within the preceding 2 years. Second, of those 50 years and older, 50% should have received a sigmoidoscopy.

The main trend among Berrien's 50+ year olds is that poor colorectal screening behaviors are more prevalent among those who are younger compared to older, male compared to female, and African American compared to white.



# Breast Cancer Screening

## Percentage of female respondents with appropriate breast cancer screening tests

Berrien Estimate (%)	Berrien 95% Confidence Interval (%)	Michigan Estimate (%)	Michigan 95% Confidence Interval (%)
48.5	7.5	45.8	2.5

### Berrien Estimates Stratified

Demographic	Estimate (%)	95% Confidence Interval (%)
<b>Age</b>		
40-49 years	33.3	11.9
50-59 years	64.9	15.4
60-69 years	67.6	15.7
≥70 years	40.5	15.8
<b>Race</b>		
White	51.2	8.6
Black	42.9	18.3
<b>Education</b>		
Less than high school	47.8	20.4
High school graduate	55.1	11.0
Some college	45.2	15.1
College graduate	32.0	18.3
<b>Income</b>		
<\$20,000	48.8	14.9
\$20,000-\$34,999	42.9	16.4
\$35,000-\$49,999	45.8	19.9
\$50,000-\$74,999	85.7	18.3
≥\$75,000	42.9	21.2

Female respondents 40 years and older were categorized as having appropriate breast screening tests if they followed the American Cancer Society's and the National Cancer Institute's recommendations of annual mammogram and annual clinical breast exam.

Breast cancer is the 4<sup>th</sup> leading cancer killer in Berrien County. From 1990 to 2000, Berrien County averaged 132 new cases of breast cancer per year. During that same 11-year time period, there were a total of 323 deaths due to breast cancer in Berrien County, averaging approximately 29 deaths per year.

The *Healthy People 2010* target for breast cancer screening is to have 70% of females 40 years and older who had a mammogram within the preceding 2 years. Based on the 2002 Berrien County survey, 79% of females 40 years and older had a mammogram within the preceding 2 years.

Most of Berrien County's females surveyed had a clinical breast exam (92%) at some point during their lives, while fewer women had ever had a mammogram (67%). Even fewer women had both screening tests on an annual basis.

# Selected Risk Factors in Berrien County

Risk Factor	Estimate (%)	95% Confidence Interval (%)
Had an emotional/mental crisis in past 12 months	14.6	3.8
Perceive health as excellent	12.4	2.9
Visited a physician within the past year for a routine checkup	70.5	5.0
Visited a dentist within the past year for any reason	67.7	4.1
Had a flu shot in the past year	26.5	3.8
Ever had a pneumonia shot	26.5	3.9
Smoked at least 100 cigarettes during lifetime	52.4	4.3
Smoking not allowed anywhere in the home	60.4	5.3
Smoking not allowed in any public areas in the workplace (of those who work indoors)	69.6	6.8
Heavy alcohol drinker	5.7	2.1
Always wears a seatbelt while driving	80.7	3.4
Changed sexual behavior due to what one knows about HIV (respondents <50 years old)	10.1	5.3
Did not believe a pregnant mother with HIV could get treatment to reduce the risk of transmitting the virus to her baby (respondents <65 years old)	24.4	5.0
Had pap smear in past 3 years (females $\geq$ 18 years old)	86.0	4.3
Had prostate-specific antigen (PSA) test in past year (males $\geq$ 50 years old)	91.5	13.0
Had digit rectal exam (DRE) in past year (males $\geq$ 50 years old)	75.1	17.9

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