

***Ottawa County
Behavioral Risk Factor Survey
- 1994 -***

*A report presented to the
Ottawa County Health Department by the
Carl Frost Center for Social Science Research at Hope College*

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BACKGROUND

In the fall of 1994, the Ottawa County Health Department contracted with the Frost Center for Social Science Research at Hope College to conduct a Behavioral Risk Factor Survey (BRFS) of a random sample of county residents. The BRFS includes questions concerning health risk behaviors, preventive behaviors, and attitudes and perceptions about community health services and issues. The information gathered in the current study will be used by the Ottawa County Health Department to evaluate the effectiveness of its programs, continue to assess the needs of the communities it serves, and prepare for the future according to the needs and preferences of the residents.

METHODS

SAMPLING

The sampling procedure began with dividing the county into four quadrants so that the Health Department could compare the characteristics and needs among the broadly defined areas. The county was divided and labeled as follows, with each area including all cities within the designated township borders:

Grand Haven-Spring Lake: Spring Lake, Crockery, Grand Haven, and Robinson Townships

Coopersville-Allendale: Polkton, Chester, Wright, Tallmadge, and Allendale Townships

Jenison-Hudsonville: Blendon, Georgetown, and Jamestown Townships

Holland-Zeeland: Port Sheldon, Olive, Park, Holland, and Zeeland Townships

A total of 200 households were randomly selected from each of the four areas, resulting in a margin of error of approximately $\pm 3\%$ for the entire county as a whole (97% confidence level), and that of approximately $\pm 5\%$ in comparisons among the quadrants (95% confidence level).

The households were randomly selected for participation using the Holland-Grand Haven and Grand Rapids phone books published by *The Flashes*. The Holland-Zeeland phone book was used to select all of the participants except for those in Jenison, who were not included in the phone book. The Grand Rapids phone book was used to randomly select the correct proportion of respondents from Jenison.

INTERVIEW INSTRUMENT

The Ottawa County Behavioral Risk Factor Survey primarily included a core of questions taken directly from the 1993 Michigan Behavior Risk Factor Survey (MBRFS), which was developed by the Centers for Disease Control. Several additional items were added which were of particular interest to the Ottawa County Health Department.

The survey is composed of six general categories of questions, including: demographic information; health status items (ie. blood pressure, blood cholesterol, weight); health behaviors (ie. exercise, smoking, alcohol consumption, seatbelt use); prevention and detection behaviors (ie. mammography, Pap tests, prostate and testicular exams); community perceptions of area problems and services, and attitudes related to HIV/AIDS.

DATA ANALYSIS

The Frost Research Center used the Statistical Package for the Social Sciences (SPSS) to organize and analyze the data from the interviews. Categorization techniques and standards as well as reporting procedures were consistent with those used by the Michigan Department of Public Health for the Michigan Behavioral Risk Factor Survey for reliable comparisons to be

made between the county and the state results. As in the Michigan survey, respondents who refused to answer a question or did not know the answer to a specific question were excluded from the computation of the percentages in the data tables for the appropriate question.

As in the Michigan Behavioral Risk Factor Survey, results for each question are reported according to relevant demographic characteristics of respondents, including residential area of the county, gender, race, age, education, and income. Each category refers to the individual's personal characteristics, except for income and residential area of the county, which refer to the entire household.

To determine significant differences among demographic groups in the responses to each question, the Chi-square statistic was used. In the data tables that follow, statistically significant differences will be designated by an asterisk. When the columns in the table represent answers to a single question, significant differences will be indicated by an asterisk next to the variable name (See, for example, Education in Table 4, on page 12). In cases where the columns in the table refer to two or more questions, asterisks to indicate statistical significance will be located next to the sections of the column on which the groups differ (See, for example, Gender in Table 6, on page 16). For example, in this table, the question relating to whether respondents had ever had their blood pressure checked years significantly varied by gender (*), while whether they have ever been told that they have high blood pressure was not significantly different according to the variable of gender.

RESULTS

DEMOGRAPHICS

A demographic profile of the sample of respondents can be found in Table 1. The table

includes figures for both the adult population of the current sample and the 1990 Census for Ottawa County, in order to evaluate the representativeness of the sample. As Table 1 shows, the current sample represents the overall population quite closely.

As can be seen in Table 1, the numbers of respondents from the various quadrants of the county were not representative of the actual population breakdown in the county. This was done purposely, as one of the primary goals of the Ottawa County Health Department in conducting this survey was to be able to adequately assess variances in needs, practices, and perceptions among the various areas. Thus, in order to gain useful information at a relatively high confidence level (margin of error for between-area comparisons = $\pm 5\%$), we opted to select two hundred respondents from each area, instead of the correct county proportions.

Both the proportions of gender and race in the sample were extremely close to the actual breakdowns in the county. Overall, 49.0% of the respondents were male, and 51.0% were female. In looking at race, 96.2% were white, and 3.8% were of another racial background.

Persons between the ages of 18 and 24 were slightly underrepresented in the sample, while those between 35 and 54 were slightly overrepresented. Overall, 13.3% of the respondents were between 18 and 24, 22.3% between 25 and 34, 24.0% between 35 and 44, 16.0% between 45 and 54, 9.0% between 55 and 64, 9.0% between 65 and 74, and 6.4% were 75 years of age and older.

The distribution of persons with different educational levels is the least representative of all of the demographic variables. Specifically, the proportion of persons who had not completed high school is significantly less than the actual proportion in the county. This may be somewhat a function of the fact that because this was a survey done by telephone, those with very low

incomes, and often low educational levels as well, were more likely to be excluded because of the higher likelihood of a lack of a phone in their homes. Overall, 7.0% of the respondents had less than a high school education, 33.2% had graduated from high school or received a G.E.D., 30.8% had attended some college, and 29.0% were college graduates.

In looking at the income distribution of the sample, it was found to be relatively close to that of the entire county in 1990, except for a slight underrepresentation of those with incomes of less than \$10,000. The complete breakdown of persons in each of the other income categories can be seen in Table 1.

As shown in Table 2, 49.0% of the households had children, with 20.5% of those households having children aged birth to 5, 25.9% having children between 5 and 12, and 21.9% having children between 12 and 18. Overall, the mean number of children in all of the households with children was 1.39.

Table 3 shows the employment status of respondents according to their demographic characteristics. The largest proportion of the sample was employed (54.6%), followed by those who were retired (17.1%), homemakers (11.6%), and persons who were self-employed (8.7%). In the sample, males were more likely to be employed (67.1%) than females (42.8%), and females were more likely to be homemakers (21.9%) than were males (0.8%). With regards to educational level, it can be seen that those with more education were more likely to be employed, and that 40.0% of those with a less than a high school education were retired.

Table 1 Demographic Characteristics Compared to 1990 Census Figures for Ottawa County

CHARACTERISTIC	Sample Distribution		1990 Census
	Number	Percentage	
Total Households	800	100%	62,912
Area of County			
Grand Haven/Spring Lake	200	25%	22.9%
Coopersville/Allendale	200	25	13.5
Jenison/Hudsonville	200	25	25.4
Holland/Zeeland	200	25	38.3
Gender			
Male	392	49.0%	49.3%
Female	408	51.0	50.1
Race			
White	762	96.2%	95.8%
Other	30	3.8	4.2
Age			
18 - 24 yrs. old	106	13.3%	16.6%
25 - 34 yrs. old	178	22.3	24.5
35 - 44 yrs. old	192	24.0	21.3
45 - 54 yrs. old	128	16.0	13.8
55 - 64 yrs. old	72	9.0	10.0
65 - 74 yrs. old	72	9.0	8.0
75 + yrs. old	51	6.4	5.8
Education			
Less than H.S.	55	7.0%	20.2%
High School Graduate	263	33.2	34.0
Some College	244	30.8	18.8
College Graduate	230	29.0	27.0
Income			
Less Than \$10,000	38	5.5%	8.1%
\$10,000 - 14,999	45	6.5	6.4
\$15,000 - 19,999	57	8.3	6.8
\$20,000 - 24,999	73	10.6	7.9
\$25,000 - 34,999	114	16.5	17.7
\$35,000 - 49,999	172	24.9	25.2
\$50,000 - 74,999	120	17.4	19.3
\$75,000 or More	71	10.3	8.5

p (x²) < .05

Table 2 Number And Ages of Children in Household, by Demographic Characteristics

	Number	Percentage of Respondents
Households with Children	392	49.0%
Households with Children Age 0 - 5	164	20.5
Households with Children Age 5-12	207	25.9
Households with Children Age 12 - 18	175	21.9
In Households with Children:		
Mean Number of Children	1.39	
Mean Number of Children Age 0 - 5	1.41	
Mean Number of Children Age 5 - 12	1.68	
Mean Number of Children Age 12 - 18	1.38	

Table 3

Employment Status, by Demographic Characteristics

CHARACTERISTIC	Employed	Self-Employed	No work < 1 year	No work > 1 year	Home-maker	Student	Retired	Unable to work
Overall (n=800)	54.6%	8.7%	1.0%	0.9%	11.6%	5.3%	17.1%	0.9%
Area of County								
Grand Haven/Spring Lake (n=200)	52.0	7.6	2.0	0.0	10.1	3.5	23.2	1.5
Coopersville/Allendale (n=200)	51.3	9.5	0.5	0.5	12.1	10.1	15.6	0.5
Jenison/Hudsonville (n=200)	57.8	7.0	1.0	1.5	13.6	3.0	15.1	1.0
Holland/Zeeland (n=200)	57.5	10.5	0.5	1.5	10.5	4.5	14.5	0.5
Gender*								
Male (n=392)	67.1	9.3	0.8	0.5	0.8	4.4	16.5	0.8
Female (n=408)	42.8	8.1	1.2	1.2	21.9	6.1	17.7	1.0
Race*								
White (n=762)	54.7	8.6	1.1	0.9	12.1	4.7	17.1	0.8
Other (n=30)	56.7	10.0	0.0	0.0	0.0	16.7	13.3	3.3
Age*								
18 - 24 yrs. old (n=106)	55.7	4.7	0.9	0.9	3.8	32.1	0.9	0.9
25 - 34 yrs. old (n=178)	68.9	10.2	1.7	0.6	16.4	1.7	0.0	0.6
35 - 44 yrs. old (n=192)	72.3	12.0	0.5	0.5	12.6	1.6	0.0	0.5
45 - 54 yrs. old (n=128)	68.5	12.6	0.8	2.4	11.0	0.0	3.1	1.6
55 - 64 yrs. old (n=72)	29.2	6.9	1.4	1.4	16.7	0.0	44.4	0.0
65 - 74 yrs. old (n=72)	5.6	0.0	1.4	0.0	8.3	1.4	81.9	1.4
75 + yrs. old (n=51)	7.8	3.9	0.0	0.0	5.9	2.0	78.4	2.0
Education*								
Less than H.S. (n=55)	20.0	7.3	3.6	0.0	3.6	16.4	40.0	9.1
High School Graduate (n=263)	48.3	11.8	1.5	1.1	14.8	1.5	20.2	0.8
Some College (n=244)	61.7	2.9	0.4	1.6	10.7	9.1	13.6	0.0
College Graduate (n=230)	63.3	10.9	0.4	0.0	10.5	3.1	11.8	0.0
Income*								
Less Than \$10,000 (n=38)	31.6	2.6	0.0	2.6	10.5	28.9	18.4	5.3
\$10,000 - 14,999 (n=45)	26.7	4.4	0.0	0.0	6.7	11.1	48.9	2.2
\$15,000 - 19,999 (n=57)	43.9	10.5	3.5	3.5	8.8	1.8	26.3	1.8
\$20,000 - 24,999 (n=73)	47.9	12.3	0.0	1.4	9.6	1.4	27.4	0.0
\$25,000 - 34,999 (n=114)	57.9	10.5	0.0	0.0	11.4	3.5	16.7	0.0
\$35,000 - 49,999 (n=172)	72.7	5.2	1.2	1.2	9.9	4.1	5.8	0.0
\$50,000 - 74,999 (n=120)	74.2	7.5	1.7	0.0	12.5	1.7	1.7	0.8
\$75,000 or More (n=71)	50.7	21.7	1.4	1.4	17.4	1.4	4.3	1.4

*p (x²) < .05

HEALTH STATUS

General Health

When asked to rate their overall health status, the vast majority of respondents answered positively. Over a third of the respondents (35.1%) rated their health as "excellent", while 37.2% described their health as "very good", and another 22.6% labelled it as "good". Overall, only 4.0% said their health was fair, and 1.0% described it as poor. For these ratings of subjective health status, there were statistically significant differences within the categories of gender, age, education level, and income level.

- * 76.0% of male respondents rated their health as "excellent" or "very good", while only 68.9% of females responded similarly.
- * As people get older, their subjective health rating becomes less positive. For example, while 50.0% of those aged 18 to 24 rated their health as "excellent", only 18.4% of those aged 75 and older did so, with a relatively steady decline in percentages in the ages between.
- * In general, subjective health ratings are positively correlated with level of education, although this variable may easily be confounded by age. While only 50.9% of those with less than a high school education rated their health as "excellent" or "very good", 66.4% of the high school graduates, 73.6% of those with some college, and 82.9% of the college graduates rated their health similarly. More specifically, almost twice as many college graduates as those with less than a high school diploma rated their health as "excellent" (20.0% and 38.4% respectively).
- * Overall, respondents' ratings of their health correlated positively with their level of income. In other words, as peoples' incomes increase, their self-rating of their health tends to be more positive. While only 55.2% of those with household incomes under \$10,000 rated their health as "excellent" or "very good", 81.7% of those with incomes of \$75,000 or more did so, with the percentages of persons choosing these ratings rising steadily between the two levels.

Blood Cholesterol

Respondents were asked a total of three questions relating to blood cholesterol: first, if

Table 4 Perceived Health Status, by Demographic Characteristics

CHARACTERISTIC	Excellent	Very Good	Good	Fair	Poor
Overall (n=800)	35.1%	37.2%	22.6%	4.0%	1.0%
Area of County					
Grand Haven/Spring Lake (n=200)	33.2	37.2	23.1	5.0	1.5
Coopersville/Allendale (n=200)	36.7	30.7	27.1	4.5	1.0
Jenison/Hudsonville (n=200)	32.8	39.4	21.7	4.5	1.5
Holland/Zeeland (n=200)	37.7	41.7	18.6	2.0	0.0
Gender*					
Male (n=392)	41.6	34.4	19.9	3.4	0.8
Female (n=408)	28.9	40.0	25.2	4.7	1.2
Race					
White (n=762)	35.2	37.2	22.5	4.1	1.1
Other (n=30)	36.7	36.7	23.3	3.3	0.0
Age*					
18 - 24 yrs. old (n=106)	50.0	31.1	17.0	1.9	0.0
25 - 34 yrs. old (n=178)	38.4	37.9	18.6	4.0	1.1
35 - 44 yrs. old (n=192)	39.8	40.8	17.8	1.6	0.0
45 - 54 yrs. old (n=128)	32.8	42.2	21.9	2.3	0.8
55 - 64 yrs. old (n=72)	27.8	34.7	26.4	6.9	4.2
65 - 74 yrs. old (n=72)	14.1	38.0	40.8	5.6	1.4
75 + yrs. old (n=51)	18.4	24.5	38.8	16.3	2.0
Education*					
Less than H.S. (n=55)	20.0	30.9	25.5	16.4	7.3
High School Graduate (n=263)	30.5	35.9	27.5	4.6	1.5
Some College (n=244)	39.7	33.9	23.6	2.9	0.0
College Graduate (n=230)	38.4	44.5	15.3	1.7	0.0
Income*					
Less Than \$10,000 (n=38)	36.8	18.4	31.6	7.9	5.3
\$10,000 - 14,999 (n=45)	40.0	20.0	31.1	6.7	2.2
\$15,000 - 19,999 (n=57)	38.6	29.8	19.3	10.5	1.8
\$20,000 - 24,999 (n=73)	34.7	31.9	29.2	4.2	0.0
\$25,000 - 34,999 (n=114)	36.0	36.8	24.6	1.8	0.9
\$35,000 - 49,999 (n=172)	30.4	46.8	20.5	2.3	0.0
\$50,000 - 74,999 (n=120)	42.5	37.5	18.3	1.7	0.0
\$75,000 or More (n=71)	43.7	38.0	14.1	1.4	2.8

*p (x²) < .05

they had ever had it checked; second, when they last had it checked; and third, if they had ever been told that it was high. The responses to these questions can be found in Table 5, both for the entire sample, and by each of the relevant demographic variables.

Overall, 69.5% had had their blood cholesterol checked at least once, with 64.8% of the entire sample having had it checked within the past five years (96.6% of those having had it checked). Of those who had it checked at least once, a total of 39.6% had it checked within the past six months and an additional 28.9% had it checked within the past year. Another 17.5% had it checked within two years, 10.6% within five years, and only 3.4% over five years ago. 18% of the entire sample had been told by a health professional that their blood cholesterol was high at some point. With regard to differences according to demographic variables, the table indicates that:

- * There are differences among the areas of the county in the frequency with which people have been checked for high cholesterol. In the Jenison/Hudsonville area, 75.0% of the respondents had their cholesterol checked, and in the Grand Haven area, 72.5% had it checked. Yet, the percentages in the Holland/Zeeland area and the Coopersville/Allendale area were somewhat lower (69.9% and 60.5% respectively).
- * Females were significantly more likely to have had their blood cholesterol checked than were males (73.6% and 65.3% respectively).
- * Age plays a significant role in determining blood cholesterol practices and traits. Generally, as people get older, they are more likely to have had their blood cholesterol checked, and more likely to have had it checked within the past five years. While only 32.0% of those aged 18 to 24 have ever had it checked, 93.9% of those over 75 years of age have had it checked, with the percentages increasing between the two age ranges. A very similar trend is also found for the percentages of respondents having had their cholesterol checked within the past five years. However, the percentage of respondents having been told that they have high blood cholesterol peaked at the age range 65 to 64 (48.6%).

Table 5

Prevalence of Being Checked for and Having High Blood Cholesterol,
by Demographic Characteristics

CHARACTERISTIC	Checked within		
	Ever Checked	5 yrs.	Ever Told High
Overall (n=800)	69.5%	64.8%	18%
Area of County			
Grand Haven/Spring Lake (n=200)	72.5*	67.5	18.5
Coopersville/Allendale (n=200)	60.5	57.0	15.5
Jenison/Hudsonville (n=200)	75.0	67.5	17.5
Holland/Zeeland (n=200)	69.9	67.0	20.5
Gender			
Male (n=392)	65.3*	63.0	19.1
Female (n=408)	73.6	70.8	16.9
Race			
White (n=762)	69.5	64.8	18.2
Other (n=30)	66.7	66.7	1.0
Age			
18 - 24 yrs. old (n=106)	32.0*	29.2*	3.8*
25 - 34 yrs. old (n=178)	51.2	46.6	4.5
35 - 44 yrs. old (n=192)	71.1	62.5	15.6
45 - 54 yrs. old (n=128)	86.7	85.9	26.6
55 - 64 yrs. old (n=72)	88.9	87.5	48.6
65 - 74 yrs. old (n=72)	94.4	90.3	30.6
75 + yrs. old (n=51)	93.9	88.2	19.6
Education			
Less than H.S. (n=55)	65.4*	60.0	16.4
High School Graduate (n=263)	65.1	60.8	17.1
Some College (n=244)	68.1	63.5	18.0
College Graduate (n=230)	76.4	71.7	19.6
Income			
Less Than \$10,000 (n=38)	52.6*	52.6	13.2
\$10,000 - 14,999 (n=45)	66.7	64.4	15.6
\$15,000 - 19,999 (n=57)	57.1	56.1	21.1
\$20,000 - 24,999 (n=73)	58.9	54.8	15.1
\$25,000 - 34,999 (n=114)	63.1	57.0	15.8
\$35,000 - 49,999 (n=172)	68.1	64.5	14.0
\$50,000 - 74,999 (n=120)	77.3	73.3	20.0
\$75,000 or More (n=71)	84.3	78.9	22.5

*p (χ^2) < .05

- * Those with higher levels of education are more likely to have ever had their blood cholesterol checked. While 65.4% of those with less than a high school diploma had had it checked, 76.4% of college graduates had had their blood cholesterol checked. There was no significant difference among educational levels in terms of being told that their blood cholesterol was high.
- * Generally, those with higher incomes are more likely to have had their blood cholesterol checked, except for those in the \$10,000 to \$14,999 range. A total of 52.6% of those with incomes of less than \$10,000 had had their cholesterol checked, while 84.3% of those with incomes of \$75,000 or more had had theirs checked, with a generally steady increase in percentages between the lowest and highest age ranges.

Blood Pressure

Several questions were also asked concerning high blood pressure, which is another significant risk factor in relation to cardiovascular health. The information obtained from the respondents included when they had last had their blood pressure checked by a health professional, whether they have ever been told it was high, and if so, whether the health professional recommended some form of treatment. The results for these questions are displayed in Table 6.

Overall, 98.2% of the respondents have had their blood pressure checked at least once, and a total of 90.4% have had it checked within the past two years. Further, 20.8% of the respondents have been told at some point that their blood pressure was high, and 17.6% have had treatment recommended to them by a health professional. Several differences were found among the various demographic groups, including:

- * A larger proportion of females (98.5%) than males (93.1%) had ever had their blood pressure checked, with an even greater discrepancy between the two in having had it checked within the past two years (95.8% females, 80.4% males).
- * Age had a significant impact on all of the questions related to blood pressure. Generally, older persons are more likely to have had their blood pressure

Table 6

Prevalence of Being Checked for and Having High Blood Pressure,
by Demographic Characteristics

CHARACTERISTIC	Ever Checked	Checked within 2 yrs.	Ever Told High	Treatment Recommended
Overall (n=800)	98.2%	90.4%	20.8%	17.6%
Area of County				
Grand Haven/Spring Lake (n=200)	96.0	91.0	25.7	22.5
Coopersville/Allendale (n=200)	95.5	86.0	18.4	15.5
Jenison/Hudsonville (n=200)	98.0	89.5	19.4	16.0
Holland/Zeeland (n=200)	94.0	86.5	19.7	16.5
Gender				
Male (n=392)	93.1*	80.4*	20.1	16.8
Female (n=408)	98.5	95.8	21.4	18.4
Race				
White (n=762)	96.1	88.3	20.8	17.6
Other (n=30)	96.7	90.0	20.7	20.0
Age				
18 - 24 yrs. old (n=106)	92.5*	74.5*	6.2*	4.7*
25 - 34 yrs. old (n=178)	94.4	87.6	8.4	4.5
35 - 44 yrs. old (n=192)	94.8	83.9	16.5	12.5
45 - 54 yrs. old (n=128)	99.2	95.3	20.5	19.5
55 - 64 yrs. old (n=72)	100.0	97.2	31.9	29.2
65 - 74 yrs. old (n=72)	98.6	97.2	50.7	50.0
75 + yrs. old (n=51)	94.1	92.2	47.9	41.2
Education				
Less than H.S. (n=55)	94.5	89.1	26.9	23.6
High School Graduate (n=263)	97.0	87.1	23.3	19.8
Some College (n=244)	95.5	88.1	20.6	17.6
College Graduate (n=230)	96.1	90.4	16.7	13.9
Income				
Less Than \$10,000 (n=38)	92.1	81.6	25.7	23.7
\$10,000 - 14,999 (n=45)	95.6	84.4	25.6	20.0
\$15,000 - 19,999 (n=57)	93.0	82.5	26.4	22.8
\$20,000 - 24,999 (n=73)	97.3	84.9	28.2	27.4
\$25,000 - 34,999 (n=114)	96.5	86.8	18.2	13.2
\$35,000 - 49,999 (n=172)	96.5	91.3	15.1	12.2
\$50,000 - 74,999 (n=120)	97.5	88.3	15.4	13.3
\$75,000 or More (n=71)	100.0	98.6	16.9	15.5

*p (χ^2) < .05

checked at least once, as well as checked within the past two years, with the largest percentage of those being checked in the age categories of 55-64 and 65-74. While only 74.5% of those between 18 and 24 have had it checked within the past two years, 97.2% of those aged 65 to 74 have done the same. The same trend follows for ever being told their blood pressure is high and having a treatment recommended to them. The percentages range from only 6.2% of respondents between 18 and 24 being told their blood pressure was high, to 50.7% of those between 65 and 74 being told the same.

- * Although there were no significant differences across income levels in the percentage of respondents who have had their blood pressure checked or have been told that they have high blood pressure, some trends are evident in the current sample. As income increases, the likelihood that respondents have had their blood pressure checked increases, while the likelihood that they have ever been told that it was high decreases. In other words, those with lower incomes were slightly less apt to have had their blood pressure checked recently, and were more apt to have been told that they had high blood pressure than those with higher income levels.

Psychological Health

Respondents were given only one question in which they were asked to assess their general psychological health. Specifically, they were asked if they felt that stress, depression, or problems with emotions had been a problem for them in the past month. Overall, 32.4% of those surveyed claimed that they had had such a problem. Significant differences were found across several demographic variables, including gender, race, and age. The breakdown of results for this item are presented in Table 7. Specifically, the table shows that:

- * Females are significantly more likely to say they have had such problems than are males (39.0% and 25.5% respectively).
- * With regard to racial background, in this sample 31.3% of those identifying themselves as Caucasian admitted to psychological difficulties, while 50.0% of those of other backgrounds did so. Caution must be taken in assessing this, as it must be considered that only 30 non-caucasian persons are included.
- * Generally, respondents in the younger age categories were more likely to have had problems in the past month than were those in the older age categories. While 40.6% of those aged 18 to 24 admitted to such difficulties, only about half as many (22.0%) of those 75 years or older did so.

Table 7

Prevalence of Psychological Difficulties, by Demographic Characteristics

CHARACTERISTIC	Had Problems in Past Month
Overall (n=800)	32.4%
Area of County	
Grand Haven/Spring Lake (n=200)	32.8
Coopersville/Allendale (n=200)	30.2
Jenison/Hudsonville (n=200)	37.2
Holland/Zeland (n=200)	29.4
Gender*	
Male (n=392)	25.5
Female (n=408)	39.0
Race*	
White (n=762)	31.3
Other (n=30)	50.0
Age*	
18 - 24 yrs. old (n=106)	40.6
25 - 34 yrs. old (n=178)	32.8
35 - 44 yrs. old (n=192)	34.4
45 - 54 yrs. old (n=128)	37.5
55 - 64 yrs. old (n=72)	28.2
65 - 74 yrs. old (n=72)	15.5
75 + yrs. old (n=51)	22.0
Education	
Less than H.S. (n=55)	43.6
High School Graduate. (n=263)	32.8
Some College (n=244)	32.6
College Graduate (n=230)	28.9
Income	
Less Than \$10,000 (n=38)	34.2
\$10,000 - 14,999 (n=45)	33.3
\$15,000 - 19,999 (n=57)	35.1
\$20,000 - 24,999 (n=73)	31.5
\$25,000 - 34,999 (n=114)	25.4
\$35,000 - 49,999 (n=172)	35.1
\$50,000 - 74,999 (n=120)	33.3
\$75,000 or More (n=71)	24.6

* $p(x^2) < .05$

HEALTH BEHAVIORS

Cigarette Smoking

The Ottawa County Behavioral Risk Factor Survey contained several questions designed to assess the overall status of the population in relation to past and present smoking habits. First, participants were asked if they had smoked at least 100 cigarettes (5 packs) in their entire life. If the response to the first question was affirmative, respondents were asked if they currently smoked. The third question addressed only those who were currently smoking, in which they were asked to estimate how many cigarettes they typically smoke in a day. For the present purposes, those who had not smoked more than 5 packs in their entire life were classified as "Never"; those who had smoked at least five packs and also said they were currently smoking were classified as "Current" smokers; and those who said they had smoked at least five packs of cigarettes in their life, but were not currently smoking are referred to as "Former" smokers. From these responses, a "Quit Ratio" was calculated using the ratio between the percentage listed under "Former" and the sum of the percentages listed under "Current" and "Former". This figure will be helpful in determining the success of the various programs designed to help people stop smoking once they have started, as well as in comparisons of the influence of such programs across demographic variables.

Overall, it was found that 64.0% of those surveyed had not smoked 5 packs of cigarettes in their lifetime, 14.4% were current smokers, and 21.4% were former smokers. Additionally, a total of 59.6% of those who had smoked at least five packs in their lives had quit smoking at the time of the survey. Significant variances were found by gender, age, and race with regard to smoking status, and by gender and education in relation to the average number

of cigarettes smoked in a day by current smokers. The results for this component are presented in Table 8, which shows that:

- * While 72.1% of the females fell into the category of non-smokers, only 55.6% of the males did so. Of those who currently smoke, it was found that men typically smoke more cigarettes per day (18) than do females (15). Further, males were more likely to quit smoking than were females (64.0% vs. 53.1% respectively).
- * Although there were no significant differences among racial groups, it appears that in the present sample, those with a caucasian background were more likely to have quit smoking (64.0%) than were those with other backgrounds (37.5%).
- * Generally, a larger proportion of those in the younger age categories (16.9% between 18 and 24; 20.2% between 25 and 34) were current smokers than those in the older age ranges (3.9% over age 75). Following this, the quit ratio increases steadily across age categories, from 40.0% between the ages of 18 and 24 quitting, to 87.5% of those aged 75 and older.
- * Several significant differences were found according to levels of education. Those with more education were more likely to never start smoking than those with less education, ranging from 73.8% of college graduates to 52.7% of non-high school graduates designated as non-smokers. Accordingly, those with lower education levels were more likely to be current smokers (30.9% of non-high school graduates) than were those with more education (7.4% of college graduates). Those with more education were also more likely to quit than those with lower education levels, as only 34.6% of those not graduating from high school had quit smoking, while 71.2% of the college graduates had done so.

Table 8

Prevalence of Current Status Regarding Cigarette Smoking,
By Demographic Characteristics

CHARACTERISTIC	Smoking Status			Quit Ratio	Average Number of Cigarettes Smoked Per Day
	Current	Former	Never		
Overall (n=800)	14.4%	21.4%	64.0%	59.6%	16
Area of County					
Grand Haven/Spring Lake (n=200)	18.0	19.5	62.1	52.0	18
Coopersville/Allendale (n=200)	12.5	21.5	65.3	63.2	17
Jenison/Hudsonville (n=200)	12.5	23.0	64.3	64.8	16
Holland/Zeeland (n=200)	14.5	21.0	64.3	59.2	14
Gender					
Male (n=392)	15.8	28.1	55.6*	64.0	18*
Female (n=408)	13.0	14.7	72.1	53.1	15
Race					
White (n=762)	14.2	21.7	63.9	64.0	17
Other (n=30)	16.7	10.0	73.3	37.5	16
Age					
18 - 24 yrs. old (n=106)	16.9*	11.3	71.7	40.0	14
25 - 34 yrs. old (n=178)	20.2	14.0	65.0	41.0	16
35 - 44 yrs. old (n=192)	12.0	24.0	63.7	66.7	20
45 - 54 yrs. old (n=128)	17.2	25.8	57.0	60.0	17
55 - 64 yrs. old (n=72)	12.5	27.8	59.7	69.0	18
65 - 74 yrs. old (n=72)	5.6	27.8	66.2	83.3	13
75 + yrs. old (n=51)	3.9	27.5	68.0	87.5	9
Education					
Less than H.S. (n=55)	30.9*	16.4	52.7*	34.6	17
High School Graduate (n=263)	19.4	23.6	56.9	54.9	17
Some College (n=244)	11.9	23.0	65.0	65.9	17
College Graduate (n=230)	7.4	18.3	73.8	71.2	15
Income					
Less Than \$10,000 (n=38)	13.2	13.2	73.7	50.0	10
\$10,000 - 14,999 (n=45)	11.1	20.0	68.9	64.3	14
\$15,000 - 19,999 (n=57)	17.5	15.8	66.7	47.4	13
\$20,000 - 24,999 (n=73)	15.1	17.8	67.1	54.2	15
\$25,000 - 34,999 (n=114)	14.0	20.2	64.9	59.0	19
\$35,000 - 49,999 (n=172)	21.5	20.9	57.3	49.3	17
\$50,000 - 74,999 (n=120)	10.0	28.3	61.7	73.9	17
\$75,000 or More (n=71)	9.9	18.3	71.4	65.0	17

*p (χ^2) < .05

Weight

Respondents' weight status was measured in the same way as in the Michigan Behavioral Risk Factor Survey (MBRFS), for comparisons to be easily made. This was done using each individual's Body Mass Index (BMI), which is defined as the individual's weight (measured in kilograms) divided by the square of the person's height (measured in meters). The interviewers actually asked participants to report their weight in pounds, and their height in feet and inches, which were converted into their metric equivalents during data analysis.

In accordance with the MBRFS, classification of individual's weight status was based on where the individual's BMI score falls in the range of all BMI scores. In this classification system, "overweight" is defined as all scores greater than or equal to the 85th percentile of the sex-specific BMI distribution of persons 20-29 years of age, based on the Second National Health and Nutrition Examination Survey 1976-1980. Specifically, males were classified as overweight if their BMI score was 27.8 kg/m^2 or greater, and females were classified as overweight if their BMI score was 27.3 kg/m^2 or greater. Respondents were designated as being underweight if their BMI score was 20.7 kg/m^2 or less for males, or 19.1 kg/m^2 or less for females. The Michigan Department of Health has reported that these cut-off points are directly comparable to the 1983 Metropolitan Life Insurance Company weight-for-height standards. Further, the Department of Health has claimed that studies of the reliability of self-reported data have shown that the amount of respondent error in reporting height and weight is actually quite small.

Table 9 presents the distribution of persons in the various weight status categories for Ottawa County. As can be seen, 20.5% of the sample fell into the overweight category, the

majority of 72.7% were in the ideal range, and 6.7% were underweight. Interestingly, the percentage of persons who were overweight in Ottawa County is almost 10.0% less than the obesity prevalence rates observed in the MBRFS in 1991 (20.5% vs. 29.4% respectively). Further, the table shows that significant differences with regard to weight status exist among demographic groups. Specifically, Table 9 shows that:

- * Females are more than twice as likely to be underweight as males (9.2% vs. 4.1% respectively), while males are more apt than females to be in the ideal range for their weight and height (74.9% vs. 70.7% respectively).
- * The tendency to be overweight increases with age, within our sample, up to age 74. While only 6.1% of those between 18 and 24 were overweight, 37.7% of the respondents between 65 and 74 years of age were overweight. Following this trend, those in younger age categories, and those over 75 were more likely to be underweight.
- * Although the trend was not significant, in general, the prevalence of obesity tended to decrease with level of education. While 23.5% of those without a high school diploma were classified as overweight, 17.5% of college graduates were classified similarly. Further, a total of 15.7% of those not graduating from high school were classified as underweight, while only approximately 6.0% of those in each of the other education level categories were classified as such.

In the Ottawa County Behavioral Risk Factor Survey, respondents were also asked if they were currently trying to lose weight, and if so, had they increased their physical activity to help in their efforts. Table 10 displays the results of these questions. Overall, 45.1% of the respondents were trying to lose weight, and of those, 58.8% had increased their physical activity. Several significant differences were found on these items across the variables of gender, age, and education. Table 10 shows that:

- * Females (51.6%) are more likely to try to lose weight than are males (38.3%), while the proportion of those increasing their physical activity to lose weight in each gender are roughly equal.

Table 9

% Distribution of Weight Status, by Demographic Characteristics

CHARACTERISTIC	Overweight	Ideal Range	Underweight
Total Households (n=800)	20.5%	72.7%	6.7%
Area of County			
Grand Haven/Spring Lake (n=200)	19.8	73.6	6.6
Coopersville/Allendale (n=200)	20.1	76.1	3.8
Jenison/Hudsonville (n=200)	24.3	68.8	6.9
Holland/Zeeland (n=200)	17.7	72.6	9.7
Gender*			
Male (n=392)	21.0	74.9	4.1
Female (n=408)	20.1	70.7	9.2
Race			
White (n=762)	20.5	72.6	6.9
Other (n=30)	20.0	76.7	3.3
Age*			
18 - 24 yrs. old (n=106)	6.1	79.6	14.3
25 - 34 yrs. old (n=178)	16.5	74.1	9.4
35 - 44 yrs. old (n=192)	18.3	77.7	4.0
45 - 54 yrs. old (n=128)	26.5	69.2	4.3
55 - 64 yrs. old (n=72)	27.3	71.2	1.5
65 - 74 yrs. old (n=72)	37.7	59.4	2.9
75 + yrs. old (n=51)	23.9	65.2	10.9
Education			
Less than H.S. (n=55)	23.5	60.8	15.7
High School Graduate (n=263)	23.2	70.0	6.8
Some College (n=244)	19.5	74.9	5.6
College Graduate (n=230)	17.5	76.5	6.0
Income			
Less Than \$10,000 (n=38)	22.9	74.3	2.9
\$10,000 - 14,999 (n=45)	28.6	66.7	4.8
\$15,000 - 19,999 (n=57)	24.1	70.4	5.6
\$20,000 - 24,999 (n=73)	20.0	75.7	4.3
\$25,000 - 34,999 (n=114)	18.9	76.4	4.7
\$35,000 - 49,999 (n=172)	18.4	74.1	7.6
\$50,000 - 74,999 (n=120)	14.2	82.3	3.5
\$75,000 or More (n=71)	21.4	64.3	14.3

*p (χ^2) < .05

Table 10 % Distribution of Respondents Trying to Lose Weight,
by Demographic Characteristics

CHARACTERISTIC	Trying to Lose Weight	Have Increased Physical Activity to Lose Weight (of those trying to lose)
Overall (n=800)	45.1%	58.8%
Area of County		
Grand Haven/Spring Lake (n=200)	43.1	58.8
Coopersville/Allendale (n=200)	52.3	56.3
Jenison/Hudsonville (n=200)	39.2	52.6
Holland/Zeeland (n=200)	46.0	67.0
Gender		
Male (n=392)	38.3*	61.9
Female (n=408)	51.6	56.7
Race		
White (n=762)	44.8	58.9
Other (n=30)	50.1	60.0
Age		
18 - 24 yrs. old (n=106)	33.3*	71.4*
25 - 34 yrs. old (n=178)	35.0	64.5
35 - 44 yrs. old (n=192)	55.3	64.4
45 - 54 yrs. old (n=128)	51.6	63.6
55 - 64 yrs. old (n=72)	44.4	50.0
65 - 74 yrs. old (n=72)	47.9	32.4
75 + yrs. old (n=51)	46.9	34.8
Education		
Less than H.S. (n=55)	38.2	42.9*
High School Graduate (n=263)	42.1	52.7
Some College (n=244)	48.1	70.7
College Graduate (n=230)	46.1	54.3
Income		
Less Than \$10,000 (n=38)	28.9	54.5
\$10,000 - 14,999 (n=45)	40.0	38.9
\$15,000 - 19,999 (n=57)	39.3	50.0
\$20,000 - 24,999 (n=73)	57.5	54.8
\$25,000 - 34,999 (n=114)	48.2	61.8
\$35,000 - 49,999 (n=172)	42.9	65.8
\$50,000 - 74,999 (n=120)	43.3	67.3
\$75,000 or More (n=71)	44.3	54.8

*p (x²) < .05

- * Generally, persons in the older age categories are more likely to try to lose weight than those in younger age categories, with the peak percentage of persons trying to lose weight being between the ages of 35 and 54. Further, of those trying to lose weight, the percentage who have increased their physical activity decreases with age (71.4% between 18 and 24, vs. 34.8% aged 75 and older).
- * Although the proportion of persons trying to lose weight in each education level is relatively equal, respondents who have had some college (70.7%) are more likely to have increased their physical activity to lose weight, while only 42.9% of those without high school diplomas have done so.

Physical Activity

Respondents' physical activity levels were measured by three questions on the Ottawa County Behavioral Risk Factor Survey. First respondents were asked if they had participated in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise during the past month. Those who had done some type of physical activity were asked how many times per week or per month they had done their most prominent physical activity, and for how long they usually kept at it. The results from these questions are presented in Table 11. Overall, 19.5% of the respondents claimed that they had not participated in any physical activity in the past month. Of those who had done some kind of physical activity, the average number of times exercised was 13, and the average length of time spent in the activity was 65 minutes. As can be seen in the table, several significant differences exist according to gender, age, and education.

- * Of the proportion of the sample who did exercise, males tended to exercise for longer periods of time on average than did females (71 minutes vs. 59 minutes respectively).
- * With regard to age, those between 45 and 74 tended to exercise a little longer on average (69-71 minutes) than did those aged between 18 and 44 (62-66 minutes), with persons aged 75 and older exercising the least amount of time (47 minutes).

Table 11 Prevalence of Physical Activity, in Past Month, by Demographic Characteristics

CHARACTERISTIC	No Activity	Average Number of Times Exercised	Average Number of Minutes Exercised
Overall (n=800)	19.5%	13	65
Area of County			
Grand Haven/Spring Lake (n=200)	20.1	14	67
Coopersville/Allendale (n=200)	20.6	14	66
Jenison/Hudsonville (n=200)	19.6	12	64
Holland/Zeeland (n=200)	17.6	12	62
Gender			
Male (n=392)	21.6	13	71*
Female (n=408)	17.4	13	59
Race			
White (n=762)	19.7	13	65
Other (n=30)	13.3	11	64
Age			
18 - 24 yrs. old (n=106)	21.7	11	62*
25 - 34 yrs. old (n=178)	18.6	13	66
35 - 44 yrs. old (n=192)	16.8	11	62
45 - 54 yrs. old (n=128)	18.8	14	70
55 - 64 yrs. old (n=72)	19.4	17	71
65 - 74 yrs. old (n=72)	18.3	16	69
75 + yrs. old (n=51)	32.0	14	47
Education			
Less than H.S. (n=55)	25.5*	16	85
High School Graduate (n=263)	25.2	13	67
Some College (n=244)	16.0	13	61
College Graduate (n=230)	15.3	12	62
Income			
Less Than \$10,000 (n=38)	23.7	17	66
\$10,000 - 14,999 (n=45)	35.6	13	56
\$15,000 - 19,999 (n=57)	24.6	15	70
\$20,000 - 24,999 (n=73)	24.7	13	52
\$25,000 - 34,999 (n=114)	16.7	14	62
\$35,000 - 49,999 (n=172)	18.1	11	72
\$50,000 - 74,999 (n=120)	15.8	12	60
\$75,000 or More (n=71)	14.1	15	56

*p (x²) < .05

Weight

Respondents' weight status was measured in the same way as in the Michigan Behavioral Risk Factor Survey (MBRFS), for comparisons to be easily made. This was done using each individual's Body Mass Index (BMI), which is defined as the individual's weight (measured in kilograms) divided by the square of the person's height (measured in meters). The interviewers actually asked participants to report their weight in pounds, and their height in feet and inches, which were converted into their metric equivalents during data analysis.

In accordance with the MBRFS, classification of individual's weight status was based on where the individual's BMI score falls in the range of all BMI scores. In this classification system, "overweight" is defined as all scores greater than or equal to the 85th percentile of the sex-specific BMI distribution of persons 20-29 years of age, based on the Second National Health and Nutrition Examination Survey 1976-1980. Specifically, males were classified as overweight if their BMI score was 27.8 kg/m^2 or greater, and females were classified as overweight if their BMI score was 27.3 kg/m^2 or greater. Respondents were designated as being underweight if their BMI score was 20.7 kg/m^2 or less for males, or 19.1 kg/m^2 or less for females. The Michigan Department of Health has reported that these cut-off points are directly comparable to the 1983 Metropolitan Life Insurance Company weight-for-height standards. Further, the Department of Health has claimed that studies of the reliability of self-reported data have shown that the amount of respondent error in reporting height and weight is actually quite small.

Table 9 presents the distribution of persons in the various weight status categories for Ottawa County. As can be seen, 20.5% of the sample fell into the overweight category, the

majority of 72.7% were in the ideal range, and 6.7% were underweight. Interestingly, the percentage of persons who were overweight in Ottawa County is almost 10.0% less than the obesity prevalence rates observed in the MBRFS in 1991 (20.5% vs. 29.4% respectively). Further, the table shows that significant differences with regard to weight status exist among demographic groups. Specifically, Table 9 shows that:

- * Females are more than twice as likely to be underweight as males (9.2% vs. 4.1% respectively, while males are more apt than females to be in the ideal range for their weight and height (74.9% vs. 70.7% respectively).
- * The tendency to be overweight increases with age, within our sample, up to age 74. While only 6.1% of those between 18 and 24 were overweight, 37.7% of the respondents between 65 and 74 years of age were overweight. Following this trend, those in younger age categories, and those over 75 were more likely to be underweight.
- * Although the trend was not significant, in general, the prevalence of obesity tended to decrease with level of education. While 23.5% of those without a high school diploma were classified as overweight, 17.5% of college graduates were classified similarly. Further, a total of 15.7% of those not graduating from high school were classified as underweight, while only approximately 6.0% of those in each of the other education level categories were classified as such.

In the Ottawa County Behavioral Risk Factor Survey, respondents were also asked if they were currently trying to lose weight, and if so, had they increased their physical activity to help in their efforts. Table 10 displays the results of these questions. Overall, 45.1% of the respondents were trying to lose weight, and of those, 58.8% had increased their physical activity. Several significant differences were found on these items across the variables of gender, age, and education. Table 10 shows that:

- * Females (51.6%) are more likely to try to lose weight than are males (38.3%), while the proportion of those increasing their physical activity to lose weight in each gender are roughly equal.

Table 9

% Distribution of Weight Status, by Demographic Characteristics

CHARACTERISTIC	Overweight	Ideal Range	Underweight
Total Households (n=800)	20.5%	72.7%	6.7%
Area of County			
Grand Haven/Spring Lake (n=200)	19.8	73.6	6.6
Coopersville/Allendale (n=200)	20.1	76.1	3.8
Jenison/Hudsonville (n=200)	24.3	68.8	6.9
Holland/Zeeland (n=200)	17.7	72.6	9.7
Gender*			
Male (n=392)	21.0	74.9	4.1
Female (n=408)	20.1	70.7	9.2
Race			
White (n=762)	20.5	72.6	6.9
Other (n=30)	20.0	76.7	3.3
Age*			
18 - 24 yrs. old (n=106)	6.1	79.6	14.3
25 - 34 yrs. old (n=178)	16.5	74.1	9.4
35 - 44 yrs. old (n=192)	18.3	77.7	4.0
45 - 54 yrs. old (n=128)	26.5	69.2	4.3
55 - 64 yrs. old (n=72)	27.3	71.2	1.5
65 - 74 yrs. old (n=72)	37.7	59.4	2.9
75 + yrs. old (n=51)	23.9	65.2	10.9
Education			
Less than H.S. (n=55)	23.5	60.8	15.7
High School Graduate (n=263)	23.2	70.0	6.8
Some College (n=244)	19.5	74.9	5.6
College Graduate (n=230)	17.5	76.5	6.0
Income			
Less Than \$10,000 (n=38)	22.9	74.3	2.9
\$10,000 - 14,999 (n=45)	28.6	66.7	4.8
\$15,000 - 19,999 (n=57)	24.1	70.4	5.6
\$20,000 - 24,999 (n=73)	20.0	75.7	4.3
\$25,000 - 34,999 (n=114)	18.9	76.4	4.7
\$35,000 - 49,999 (n=172)	18.4	74.1	7.6
\$50,000 - 74,999 (n=120)	14.2	82.3	3.5
\$75,000 or More (n=71)	21.4	64.3	14.3

*p (x²) < .05

Table 10 % Distribution of Respondents Trying to Lose Weight,
by Demographic Characteristics

CHARACTERISTIC	Trying to Lose Weight	Have Increased Physical Activity to Lose Weight (of those trying to lose)
Overall (n=800)	45.1%	58.8%
Area of County		
Grand Haven/Spring Lake (n=200)	43.1	58.8
Coopersville/Allendale (n=200)	52.3	56.3
Jenison/Hudsonville (n=200)	39.2	52.6
Holland/Zeeland (n=200)	46.0	67.0
Gender		
Male (n=392)	38.3*	61.9
Female (n=408)	51.6	56.7
Race		
White (n=762)	44.8	58.9
Other (n=30)	50.1	60.0
Age		
18 - 24 yrs. old (n=106)	33.3*	71.4*
25 - 34 yrs. old (n=178)	35.0	64.5
35 - 44 yrs. old (n=192)	55.3	64.4
45 - 54 yrs. old (n=128)	51.6	63.6
55 - 64 yrs. old (n=72)	44.4	50.0
65 - 74 yrs. old (n=72)	47.9	32.4
75 + yrs. old (n=51)	46.9	34.8
Education		
Less than H.S. (n=55)	38.2	42.9*
High School Graduate (n=263)	42.1	52.7
Some College (n=244)	48.1	70.7
College Graduate (n=230)	46.1	54.3
Income		
Less Than \$10,000 (n=38)	28.9	54.5
\$10,000 - 14,999 (n=45)	40.0	38.9
\$15,000 - 19,999 (n=57)	39.3	50.0
\$20,000 - 24,999 (n=73)	57.5	54.8
\$25,000 - 34,999 (n=114)	48.2	61.8
\$35,000 - 49,999 (n=172)	42.9	65.8
\$50,000 - 74,999 (n=120)	43.3	67.3
\$75,000 or More (n=71)	44.3	54.8

*p (x²) < .05

- * Generally, persons in the older age categories are more likely to try to lose weight than those in younger age categories, with the peak percentage of persons trying to lose weight being between the ages of 35 and 54. Further, of those trying to lose weight, the percentage who have increased their physical activity decreases with age (71.4% between 18 and 24, vs. 34.8% aged 75 and older).
- * Although the proportion of persons trying to lose weight in each education level is relatively equal, respondents who have had some college (70.7%) are more likely to have increased their physical activity to lose weight, while only 42.9% of those without high school diplomas have done so.

Physical Activity

Respondents' physical activity levels were measured by three questions on the Ottawa County Behavioral Risk Factor Survey. First respondents were asked if they had participated in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise during the past month. Those who had done some type of physical activity were asked how many times per week or per month they had done their most prominent physical activity, and for how long they usually kept at it. The results from these questions are presented in Table 11. Overall, 19.5% of the respondents claimed that they had not participated in any physical activity in the past month. Of those who had done some kind of physical activity, the average number of times exercised was 13, and the average length of time spent in the activity was 65 minutes. As can be seen in the table, several significant differences exist according to gender, age, and education.

- * Of the proportion of the sample who did exercise, males tended to exercise for longer periods of time on average than did females (71 minutes vs. 59 minutes respectively).
- * With regard to age, those between 45 and 74 tended to exercise a little longer on average (69-71 minutes) than did those aged between 18 and 44 (62-66 minutes), with persons aged 75 and older exercising the least amount of time (47 minutes).

Table 11 Prevalence of Physical Activity, in Past Month, by Demographic Characteristics

CHARACTERISTIC	No Activity	Average Number of Times Exercised	Average Number of Minutes Exercised
Overall (n=800)	19.5%	13	65
Area of County			
Grand Haven/Spring Lake (n=200)	20.1	14	67
Coopersville/Allendale (n=200)	20.6	14	66
Jenison/Hudsonville (n=200)	19.6	12	64
Holland/Zeeland (n=200)	17.6	12	62
Gender			
Male (n=392)	21.6	13	71*
Female (n=408)	17.4	13	59
Race			
White (n=762)	19.7	13	65
Other (n=30)	13.3	11	64
Age			
18 - 24 yrs. old (n=106)	21.7	11	62*
25 - 34 yrs. old (n=178)	18.6	13	66
35 - 44 yrs. old (n=192)	16.8	11	62
45 - 54 yrs. old (n=128)	18.8	14	70
55 - 64 yrs. old (n=72)	19.4	17	71
65 - 74 yrs. old (n=72)	18.3	16	69
75 + yrs. old (n=51)	32.0	14	47
Education			
Less than H.S. (n=55)	25.5*	16	85
High School Graduate (n=263)	25.2	13	67
Some College (n=244)	16.0	13	61
College Graduate (n=230)	15.3	12	62
Income			
Less Than \$10,000 (n=38)	23.7	17	66
\$10,000 - 14,999 (n=45)	35.6	13	56
\$15,000 - 19,999 (n=57)	24.6	15	70
\$20,000 - 24,999 (n=73)	24.7	13	52
\$25,000 - 34,999 (n=114)	16.7	14	62
\$35,000 - 49,999 (n=172)	18.1	11	72
\$50,000 - 74,999 (n=120)	15.8	12	60
\$75,000 or More (n=71)	14.1	15	56

*p (x²) < .05

- * A significantly larger proportion of respondents with lower levels of education reported that they were involved in no physical activity than those with higher educational levels. While approximately one quarter of those with a high school diploma or less participated in no physical activities, only 16.0% of those with some college, and 15.3% of the college graduates had not exercised over the past month.

Alcohol Consumption

The Ottawa County Behavioral Risk Factor Survey included several questions regarding respondents' alcohol consumption, frequency and quantities of drinking, and frequencies of binge drinking as well as drinking and driving. To determine the prevalence of risks related to heavy drinking, both the frequency and quantity of drinking had to be taken into account. In order to measure this, two questions were asked. First, respondents were asked on how many days they had drunk any beer, wine, wine coolers, cocktails, or liquor within the past month. Those who had not drunk at all were classified as "abstainers" and were not asked any of the follow-up questions. Those who said they had drunk at least one day were asked how many drinks they drank on average on those days when they did drink, for which their actual response was recorded. For purposes of data analysis, the responses for this question were recoded into the following categories: one day a month, two to three days a month, about one day a week, two to three days a week, or almost everyday. The total consumption of alcohol was calculated as the product of these two responses. To do this, meaningful numbers were substituted for the drinking frequency categories. As such, the numerical transformations were as follows: one day a month = 1, two or three days a month = 2.5, about one day a week = 4.25, two to three days a week = $(2.5 \times 4.25) = 10.6$, and almost everyday = $(6.5 \times 4.25) = 27.6$ days per month. Thus, the product of the transformed approximate number of days of drinking per month

and the average number of drinks on those days represents the approximate number of drinks consumed per month.

Using the criteria from the MBRFS and the Department of Public Health, respondents were categorized as being heavy drinkers if the product of the frequency and average quantity of their drinking was 60 or more drinks per month. Moderate drinkers were those who drank between 10 and 59 drinks per month, and light drinkers were persons who drank between 1 and 9 drinks per month. The results of this classification system are displayed in Table 12. Overall, it can be seen that 51.3% of the respondents were categorized as being abstainers, 25.8% as light drinkers, 19.5% as moderate drinkers, and 3.3% as heavy drinkers. Yet, the table also indicates that the percentages of persons in the various drinking status categories is not evenly distributed across demographic variables. Specifically, Table 12 shows that:

- * While approximately half of all respondents, regardless of gender, are abstainers, males are more likely than females to be moderate (23.7% vs. 15.5% respectively) or heavy (5.3% vs. 1.5% respectively) drinkers. Accordingly, a larger percentage of females than males are classified as light drinkers (29.8% vs. 21.6% respectively).
- * In general, persons in each ascending age category are progressively more likely to abstain from drinking, ranging from 39.0% of those between the ages of 18 and 24, to 72.3% of those aged 75 and older. Consequently, those in the younger age categories are much more likely to be moderate or heavy drinkers.
- * While no significant differences were evident across educational levels, a trend does seem to be in place. Respondents with higher levels of education are less likely to abstain from drinking than those with less education (73.1% of non-high school graduates vs. 46.2% of college graduates). Following this trend, those with more education are somewhat more apt to be light or moderate drinkers than those with lower educational attainments.

In addition to assessing typical drinking patterns, the Ottawa County survey looked at the prevalence of binge drinking and drinking and driving episodes, which can easily result in injury

Table 12 % Distribution of Current Drinking Status, by Demographic Characteristics

CHARACTERISTIC	Abstainer	Light	Moderate	Heavy
Overall (n=800)	51.3%	25.8%	19.5%	3.3%
Area of County				
Grand Haven/Spring Lake (n=200)	53.9	19.7	23.3	3.1
Coopersville/Allendale (n=200)	49.2	25.9	19.2	5.7
Jenison/Hudsonville (n=200)	54.3	30.5	13.2	2.0
Holland/Zeeland (n=200)	47.7	27.2	22.6	2.6
Gender*				
Male (n=392)	49.3	21.6	23.7	5.3
Female (n=408)	53.1	29.8	15.5	1.5
Race				
White (n=762)	51.3	26.1	19.1	3.5
Other (n=30)	44.8	20.7	34.5	0.0
Age*				
18 - 24 yrs. old (n=106)	39.0	21.9	29.5	9.5
25 - 34 yrs. old (n=178)	49.2	32.8	14.7	3.4
35 - 44 yrs. old (n=192)	48.7	27.8	20.9	2.7
45 - 54 yrs. old (n=128)	46.8	27.8	21.4	4.0
55 - 64 yrs. old (n=72)	56.5	26.1	17.4	0.0
65 - 74 yrs. old (n=72)	71.6	13.4	14.9	0.0
75 + yrs. old (n=51)	72.3	12.8	14.9	0.0
Education				
Less than H.S. (n=55)	73.1	17.3	9.6	0.0
High School Graduate (n=263)	53.5	24.0	18.5	3.9
Some College (n=244)	49.0	26.6	20.7	3.7
College Graduate (n=230)	46.2	28.4	22.2	3.1
Income				
Less Than \$10,000 (n=38)	41.7	27.8	27.8	2.8
\$10,000 - 14,999 (n=45)	63.6	15.9	11.4	9.1
\$15,000 - 19,999 (n=57)	52.7	20.0	27.3	0.0
\$20,000 - 24,999 (n=73)	72.2	11.1	12.5	4.2
\$25,000 - 34,999 (n=114)	55.0	20.7	21.6	2.7
\$35,000 - 49,999 (n=172)	43.9	32.7	19.3	4.1
\$50,000 - 74,999 (n=120)	47.1	30.3	18.5	4.2
\$75,000 or More (n=71)	28.6	42.9	25.7	2.9

*p (x²) < .05

Table 13 Prevalence of Binge Drinking, and Drinking and Driving, by Demographic Characteristics

CHARACTERISTIC	Binge Drinking	Drinking & Driving
Overall (n=800)	12.1%	3.3%
Area of County		
Grand Haven/Spring Lake (n=200)	11.5	2.5
Coopersville/Allendale (n=200)	17.5	5.0
Jenison/Hudsonville (n=200)	9.0	2.0
Holland/Zeeland (n=200)	10.5	3.5
Gender		
Male (n=392)	17.9*	5.4*
Female (n=408)	6.6	1.2
Race		
White (n=762)	12.1	3.3
Other (n=30)	13.3	3.3
Age		
18 - 24 yrs. old (n=106)	32.1*	10.4*
25 - 34 yrs. old (n=178)	15.7	3.4
35 - 44 yrs. old (n=192)	10.4	1.6
45 - 54 yrs. old (n=128)	8.6	3.1
55 - 64 yrs. old (n=72)	4.2	0.0
65 - 74 yrs. old (n=72)	0.0	0.0
75 + yrs. old (n=51)	2.0	3.9
Education		
Less than H.S. (n=55)	7.3	1.8
High School Graduate (n=263)	14.8	3.4
Some College (n=244)	12.3	3.7
College Graduate (n=230)	10.4	3.0
Income		
Less Than \$10,000 (n=38)	15.8	2.6
\$10,000 - 14,999 (n=45)	15.6	2.2
\$15,000 - 19,999 (n=57)	17.5	3.5
\$20,000 - 24,999 (n=73)	9.6	0.0
\$25,000 - 34,999 (n=114)	10.5	3.5
\$35,000 - 49,999 (n=172)	14.0	4.7
\$50,000 - 74,999 (n=120)	13.3	4.2
\$75,000 or More (n=71)	9.9	4.2

*p (x²) < .05

to self and others. The MBRFS defined binge drinking as consuming five or more drinks on a single occasion. Thus, the Ottawa County survey used the same measure and asked respondents how many times in the past month they had drunk five or more drinks. Similarly, respondents were asked how many times in the past month they had driven after having too much to drink. Although it may be interesting to evaluate the actual number of times each of the above has happened in the past month, the focus for the present analyses is on whether each happened at least once. This reduces the margin of error of personal judgements on how many times each has actually happened, given the nature of the item at hand.

The results concerning the prevalence of binge drinking and drinking and driving are presented in Table 13. As shown, 12.1% of all respondents had had at least one episode of binge drinking and 3.3% had been driving drunk in the past month. Table 13 also shows that the prevalence of binge drinking and drinking and driving both varied by gender and age. Specifically, it can be seen that:

- * Although no significant differences appeared in relation to area of the county, both the prevalence of binge drinking and drinking and driving are somewhat higher in the Coopersville/Allendale quadrant of the county.
- * Almost three times as many men (17.9%) as women (6.6%) had at least one episode of binge drinking within the past month. Further, men were almost 5 times as likely to drink and drive than were women (5.4% vs. 1.2% respectively).
- * The tendency for both binge drinking and drinking and driving generally declines with age. As 32.1% of those between the ages of 18 and 24 had at least on occasion of binge drinking, only 2.0% of those aged 75 and older did so.

Seatbelt Use

As seatbelts have been shown to reduce the risk of injury in traffic accidents, the Ottawa County survey included a question concerning the frequency with which respondents wear their

TABLE 17
 Distribution of Seaweed Use Frequency, by Demographic Characteristics

CHARACTERISTIC	Always	Nearly Always	Sometimes	Seldom	Never
Overall (n=800)	78.3%	12.8%	4.8%	1.5%	2.4%
Area					
Grand Haven (n=200)	83.8	9.6	3.5	1.5	1.5
Coopersville/Allendale (n=200)	73.4	15.6	6.5	0.0	4.0
Jenison/Hudsonville (n=200)	80.4	12.6	3.5	2.5	1.0
Holland/Zeeland (n=200)	75.8	13.6	5.6	2.0	3.0
Gender*					
Male (n=392)	68.1	19.4	6.5	2.6	3.4
Female (n=408)	88.0	6.6	3.2	0.5	1.5
Race					
White (n=762)	78.4	12.9	4.9	1.3	2.4
Other (n=30)	76.7	10.0	3.3	6.7	3.3
Age*					
18 - 24 yrs. old (n=106)	65.1	16.0	9.4	4.7	4.7
25 - 34 yrs. old (n=178)	76.3	11.9	6.8	1.7	3.4
35 - 44 yrs. old (n=192)	82.0	12.7	3.2	0.0	2.1
45 - 54 yrs. old (n=128)	76.6	16.4	5.5	1.6	0.0
55 - 64 yrs. old (n=72)	81.9	13.9	2.8	0.0	1.4
65 - 74 yrs. old (n=72)	87.3	7.0	1.4	1.4	1.4
75 + yrs. old (n=51)	86.0	8.0	0.0	2.0	4.0
Education*					
Less than H.S. (n=55)	67.3	14.5	7.3	1.8	7.3
High School Graduate (n=263)	74.8	14.5	6.1	2.3	2.3
Some College (n=244)	80.7	12.3	3.7	0.8	2.5
College Graduate (n=230)	82.5	11.0	3.9	1.3	1.3
Income*					
Less Than \$10,000 (n=38)	60.5	21.1	7.9	5.3	2.6
\$10,000 - 14,999 (n=45)	71.1	11.1	6.7	2.2	8.9
\$15,000 - 19,999 (n=57)	75.4	10.5	3.5	5.3	5.3
\$20,000 - 24,999 (n=73)	76.7	12.3	6.8	1.4	2.7
\$25,000 - 34,999 (n=114)	69.3	21.1	6.1	0.9	2.6
\$35,000 - 49,999 (n=172)	82.5	12.9	3.5	0.6	0.6
\$50,000 - 74,999 (n=120)	81.7	14.2	4.2	0.0	0.0
\$75,000 or More (n=71)	82.6	7.2	2.9	2.9	4.3

*p (x²) < .05

seatbelts. Specifically, interviewers asked participants how often they wear seatbelts when they drive or ride in a car. The responses to this question are displayed in Table 14. Overall, 78.3% indicated that they always wear their seatbelts. Another 12.8% nearly always wear their seatbelts, while 4.8% said they sometimes wear them. A minority of respondents said they wear seatbelts seldom (1.5%) or never (2.4%). As seen in Table 14, frequency of seatbelt use varied across the demographic variables of gender, age, education, and income.

- * Generally, females wear their seatbelts more often than males, with 88.0% of females and 68.1% of males indicating that they always wear them.
- * The tendency for people to wear their seatbelts increases with age, which can especially be seen in the fact that 65.1% of those between 18 and 24 always wear their seatbelts, while 86.0% of those over the age of 75 do so.
- * The tendency for people to wear their seatbelts more frequently also increases with level of education. As 82.5% of the college graduates claim that they always wear their seatbelts when in a car, only 67.3% of those with less than a high school education do so.
- * As income level increases, people are more likely to wear their seatbelts more frequently. This is demonstrated in the fact that 60.5% of those with incomes of less than \$10,000 always wear their seatbelts, while 82.6% of those with incomes of \$75,000 or more always wear them.

Dental Care

Interviewers asked respondents two questions to evaluate their typical dental care practices. First, participants were asked if they had had a routine dental checkup in the past two years. If they had not, they were asked for the reason they had not done so. The results for these two questions are presented in Table 15. As can be seen, 88.8% of the respondents indicated that they had a dental checkup in the past two years. Of the 11.2% of the respondents who had not gone, 24.1% did not go because they could not pay for the services, 13.9% did not

CHARACTERISTIC	Had Dental Checkup in Past 2 Years	Reasons of Persons Not Having Had Checkup			
		Can't Pay	Fear of Dental Treatment	Too Busy	Other
Overall (n=800)	88.8%	24.1%	13.9%	31.6%	30.4%
Area of County					
Grand Haven/Spring Lake (n=200)	85.9	15.4	7.7	46.2	30.8
Coopersville/Allendale (n=200)	89.3	35.3	11.8	23.5	29.4
Jenison/Hudsonville (n=200)	88.9	19.0	19.0	28.6	33.3
Holland/Zeeland (n=200)	91.0	33.3	20.0	20.0	26.7
Gender					
Male	87.6	18.6*	14.0*	46.5*	20.9*
Female	89.9	30.6	13.9	13.9	41.7
Race					
White (n=762)	88.9	25.3	14.7	29.3	30.7
Other (n=30)	86.7	0.0	0.0	100.0	0.0
Age					
18 - 24 yrs. old (n=106)	81.1	31.3	6.3	50.0	12.5
25 - 34 yrs. old (n=178)	88.7	35.0	20.0	35.0	10.0
35 - 44 yrs. old (n=192)	90.0	15.8	15.8	36.8	31.6
45 - 54 yrs. old (n=128)	93.0	14.3	14.3	42.9	28.6
55 - 64 yrs. old (n=72)	93.1	40.0	0.0	0.0	60.0
65 - 74 yrs. old (n=72)	84.5	14.3	14.3	0.0	71.4
75 + yrs. old (n=51)	89.6	0.0	20.0	0.0	80.0
Education					
Less than H.S. (n=55)	81.8	40.0	10.0	10.0	40.0
High School Graduate (n=263)	88.5	23.8	9.5	28.6	38.1
Some College (n=244)	89.3	20.0	16.0	40.0	24.0
College Graduate (n=230)	90.4	22.7	18.2	31.8	27.3
Income					
Less Than \$10,000 (n=38)	64.9*	45.5	0.0	18.2	36.4
\$10,000 - 14,999 (n=45)	80.0	12.5	25.0	25.0	37.5
\$15,000 - 19,999 (n=57)	77.2	41.7	16.7	16.7	25.0
\$20,000 - 24,999 (n=73)	83.6	30.0	10.0	20.0	40.0
\$25,000 - 34,999 (n=114)	84.2	0.0	18.8	62.5	18.8
\$35,000 - 49,999 (n=172)	94.2	22.2	22.2	22.2	33.3
\$50,000 - 74,999 (n=120)	96.7	0.0	25.0	50.0	25.0
\$75,000 or More (n=71)	100.0	0.0	0.0	0.0	0.0

*p (χ^2) < .05

want to go or were fearful of treatment, 31.6% were too busy, and 30.4% had other reasons.

Table 15 also shows that the proportion of persons having dental checkups varied by age, and the reasons people did not have dental checkups varied by gender, as follows:

- * Generally, as income increases, the likelihood that respondents have had a dental checkup in the past two years also increases. While 64.9% of those with incomes of less than \$10,000 had had a checkup, 100.0% of those with incomes of \$75,000 or more had had one, with the percentages increasing relatively steadily between the two income ranges.
- * The reasons participants did not have a dental checkup varied by gender in that while 13.9% of females said they had been too busy, 46.5% of the males indicated this reason. Further, 30.6% of female respondents, but only 18.6% of males respondents said they could not pay for the services.

Summary

Table 16 presents a comparison the prevalence of the various health practices and risk factors discussed thus far between Ottawa County (1994) and the State of Michigan (1991). The risk factors are listed in descending order of frequency so the relative potency of each can be more accurately assessed. As can be seen in the table, the most common risk factor was being overweight (20.5%), followed by physical inactivity (19.4%), smoking (14.4%), binge drinking (12.1%), seatbelt non-use (3.9%), heavy drinking (3.3%), and drinking and driving (3.3%). This trend closely parallels that found in the state of Michigan, with lower overall percentages in each category for Ottawa County than in the state as a whole. Table 16 also presents the prevalence rates for two health condition factors. Both the prevalence rates for never having blood cholesterol checked and ever being told that blood pressure is high are similar to those found in the state of Michigan.

As people may often have more than one of the above risk factors, which may interact

with one another and cause more serious problems (ex. smoking and high blood pressure), the number of risk factors was calculated for each individual. By combining the risk factors for each person, the actual population that is "risk free" according to these measures can be more accurately assessed. As shown in Table 17, first the behavior-related risk factors were counted, followed by risks under health conditions, and the combined total. The table shows that almost half of the sample (48.9%) did not have any of the behavioral risk factors, about one third (33.4%) had one, 12.8% had two, and only 4.9% had three or more. With regard to the health conditions of not having blood cholesterol checked and ever being told that blood pressure is high, again half (52.9%) did not have either of them, 44.6% had one, and 2.5% had both. The item "never having blood cholesterol checked" probably overestimates the risk as few of those who do not get their cholesterol checked have high levels and are at risk for health problems as a result. Therefore, this item was not included in calculating the combined total of behavioral and health risk factors. As such, Table 17 shows that overall, 41.7% of the respondents had no risk factors, 32.0% had one, 18.3% had two, and only 8.0% had three or more of the risk factors.

Analyses were also done comparing the number of risk factors by the potentially relevant demographic variables. The results are displayed in Table 18, which shows that:

- * In general, males typically have more risk factors than do females, especially seen in the fact that 46.1% of females have no risk factors, while 37.2% of males have no risk factors. Males are also more likely to have three (7.7%) or four (3.3%) risk factors than are females (3.4% and 1.0% respectively).
- * Persons between the ages of 25 and 44 are much more likely to have no risk factors than are those in other age groups. Persons aged 45 and older are more likely to have one of the risk factors than those under 45.

Table 16 Risk Factor Prevalence Rates for Ottawa County (1994) and Michigan (1991)

RISK FACTORS	% in Ottawa County	% in Michigan
Behavior Related		
Overweight	20.5%	29.4%
Physical Inactivity	19.4	28.8
Smoking	14.4	27.9
Binge Drinking	12.1	18.2
Seatbelt Non-use (seldom or never)	3.9	18.8
Heavy Drinking	3.3	6.7
Drinking and Driving	3.3	4.2
Health Condition		
Cholesterol Never Checked	29.8	29.9
Ever Told Blood Pressure High	20.8	24.1

Table 17 % Distribution of Numbers of Risk Factors by Type

Numbers of Risk Factors	0	1	2	3 or more	Total
Behavior-Related	48.9%	33.4%	12.8%	4.9%	100.0%
Health Conditions	52.9	44.6	2.5	N.A.	100.0
Combined Total (- No Cholesterol Check)	41.7	32.0	18.3	8.0	100.0

N.A. = Not Applicable

Table 18

% Distribution of Numbers of Behavior Risk Factors, by Demographic Characteristics

CHARACTERISTIC	Number of Behavior Risk Factors					
	0	1	2	3	4	5 or More
Overall (n=800)	41.7%	32.0%	18.3%	5.5%	2.1%	0.5%
Area of County						
Grand Haven/Spring Lake (n=200)	38.5	34.0	19.0	6.0	2.0	0.5
Coopersville/Allendale (n=200)	42.0	28.0	20.5	6.5	2.5	0.5
Jenison/Hudsonville (n=200)	44.0	31.5	16.5	6.5	1.5	0.0
Holland/Zeeeland (n=200)	42.5	34.5	17.0	3.0	2.5	0.5
Gender*						
Male (n=392)	37.2	32.7	18.4	7.7	3.3	0.8
Female (n=408)	46.1	31.4	18.1	3.4	1.0	0.0
Race						
White (n=762)	41.6	32.2	18.2	5.5	2.1	0.4
Other (n=30)	43.3	30.0	16.7	6.7	3.3	0.0
Age*						
18 - 24 yrs. old (n=106)	41.5	21.7	27.4	4.7	3.8	0.9
25 - 34 yrs. old (n=178)	46.1	29.8	14.6	7.3	2.2	0.0
35 - 44 yrs. old (n=192)	49.5	29.2	16.1	2.6	2.6	0.0
45 - 54 yrs. old (n=128)	39.1	39.1	13.3	4.7	2.3	1.6
55 - 64 yrs. old (n=72)	37.5	36.1	22.2	2.8	1.4	0.0
65 - 74 yrs. old (n=72)	29.2	37.5	25.0	8.3	0.0	0.0
75 + yrs. old (n=51)	29.4	41.2	15.7	13.7	0.0	0.0
Education*						
Less than H.S. (n=55)	32.7	23.6	34.5	7.3	1.8	0.0
High School Graduate (n=263)	32.7	35.7	19.4	8.7	3.4	0.0
Some College (n=244)	42.6	34.0	18.0	2.5	2.0	0.8
College Graduate (n=230)	53.0	27.4	13.5	4.8	0.9	0.4
Income						
Less Than \$10,000 (n=38)	34.2	34.2	23.7	5.3	0.0	2.6
\$10,000 - 14,999 (n=45)	26.7	26.7	33.3	11.1	2.2	0.0
\$15,000 - 19,999 (n=57)	31.6	31.6	24.6	8.8	3.5	0.0
\$20,000 - 24,999 (n=73)	34.2	38.4	19.2	5.5	2.7	0.0
\$25,000 - 34,999 (n=114)	46.5	30.7	14.0	7.0	1.8	0.0
\$35,000 - 49,999 (n=172)	41.3	34.9	15.7	5.2	2.3	0.6
\$50,000 - 74,999 (n=120)	49.2	32.5	13.3	3.3	0.8	0.8
\$75,000 or More (n=71)	50.7	25.4	15.5	4.2	4.2	0.0

*p (χ^2) < .05

Table 19 % Distribution of Numbers of Behavior Risk Factors,
by Subjective Health Status

PERCEIVED HEALTH STATUS	Number of Behavior Risk Factors			Total
	0	1	2 or More	
Excellent	51.6%	33.7%	14.7%	100.0%
Very Good	43.6	30.7	25.7	100.0
Good	27.2	33.3	39.5	100.0
Fair	21.9	28.1	50.0	100.0
Poor	0.0	25.0	75.0	100.0

*p (x²) < .05

- * The proportion of respondents who were "risk free" increased with educational level, with 32.7% of those with a high school diploma or less having no risk factors, to 53.0% of college graduates having none. Further, those with lower levels of education were more likely to have 3 or 4 risk factors than those with higher levels of education.

Respondents' subjective health assessments and their number of behavioral risk factors were also compared to evaluate whether their assessments actually reflected their combined risk status. The results of this comparison are presented in Table 19. As can be seen, the number of behavioral risk factors did vary inversely with respondents perceived health status. More specifically, of those who described their health as excellent, 51.6% had no risk factors, 33.7% had one, and 14.7% had two or more. Conversely, of those who described their general health status as poor, 75.0% had two or more risk factors, and the other 25.0% had one.

PREVENTION AND DETECTION BEHAVIORS

Mammography

Because of the current stress on early detection of breast cancer in women for increased success in treatment, females respondents were asked two question regarding mammograms. First, participants were asked if they had ever had a mammogram. Those who responded affirmatively were then asked how long it had been since they had their last one.

The American Cancer Society recommends that women between the ages of 35 and 39 should get a baseline mammogram performed, that women between 40 and 49 should have screening mammograms done every one to two years, and those aged 50 and older should have one done annually. For these reasons, analyses have been done separately for women 35 and older and those under 34 years of age. The results are shown in Table 20 and Table 21

CHARACTERISTIC	Ever Had Mammogram	Less Than 1 Year	When Had			
			1-2 Years	2-3 Years	3-5 Years	More than 5 Years
Overall (n=274)	83.9%	68.5%	21.1%	4.4%	3.2%	2.8%
Area of County						
Grand Haven/Spring Lake (n=71)	88.7	74.6	15.9	6.3	1.6	1.6
Coopersville/Allendale (n=61)	80.3	67.3	28.6	0.0	2.0	2.0
Jenison/Hudsonville (n=69)	84.1	56.9	25.9	5.2	6.9	5.2
Holland/Zeeland (n=73)	82.2	76.7	20.0	3.3	0.0	0.0
Race						
White (n=266)	83.5	68.9	22.5	4.1	2.3	2.3
Other (n=5)	100.0	80.0	20.0	0.0	0.0	0.0
Age						
35 - 44 yrs. old (n=95)	72.6*	46.4*	40.6*	4.3*	5.8*	2.9*
45 - 54 yrs. old (n=64)	90.6	82.8	15.5	1.7	0.0	0.0
55 - 64 yrs. old (n=39)	89.7	77.1	11.4	5.7	2.9	2.9
65 - 74 yrs. old (n=43)	93.0	82.5	12.5	2.5	2.5	0.0
75 + yrs. old (n=33)	84.8	67.9	17.9	7.1	0.0	7.1
Education						
Less than H.S. (n=22)	72.7	62.5	18.8	12.5	0.0	6.3
High School Graduate (n=106)	81.1	70.9	22.1	3.5	1.2	2.3
Some College (n=81)	92.6	70.7	18.7	2.7	5.3	2.7
College Graduate (n=62)	82.3	68.6	25.5	3.9	2.0	0.0
Income						
Less Than \$10,000 (n=15)	73.3*	81.8	9.1	0.0	9.1	0.0
\$10,000 - 14,999 (n=15)	86.7	76.9	7.7	15.4	0.0	0.0
\$15,000 - 19,999 (n=19)	84.2	43.8	43.8	0.0	12.5	0.0
\$20,000 - 24,999 (n=21)	81.0	70.6	23.5	5.9	0.0	0.0
\$25,000 - 34,999 (n=31)	77.4	83.3	16.7	0.0	0.0	0.0
\$35,000 - 49,999 (n=45)	68.9	64.5	22.6	3.2	6.5	3.2
\$50,000 - 74,999 (n=33)	84.8	64.3	28.6	3.6	0.0	3.6
\$75,000 or More (n=34)	100.0	79.4	11.8	5.9	2.9	0.0

*p (χ^2) < .05

Table 21

% of Females 18 - 34 Who Have Had Mammograms
by Demographic Characteristics

CHARACTERISTIC	Ever Had Mammogram	Less Than 1 Year	When Had			
			1-2 Years	2-3 Years	3-5 Years	More than 5 Years
Overall (n=132)	17.4%	61.9%	9.5%	9.5%	9.5%	9.5%
Area of County						
Grand Haven/Spring Lake (n=29)	6.9	100.0	0.0	0.0	0.0	0.0
Coopersville/Allendale (n=41)	22.0	50.0	12.5	25.0	12.5	0.0
Jenison/Hudsonville (n=33)	18.2	66.7	16.7	0.0	0.0	16.7
Holland/Zeeeland (n=29)	20.7	60.0	0.0	0.0	20.0	20.0
Race						
White (n=128)	17.2	60.0	10.0	10.0	10.0	10.0
Other (n=4)	25.0	100.0	0.0	0.0	0.0	0.0
Age						
18 - 24 yrs. old (n=41)	12.2	50.0	25.0	25.0	0.0	0.0
25 - 34 yrs. old (n=91)	19.8	64.7	5.9	5.9	11.8	11.8
Education						
Less than H.S. (n=10)	10.0	100.0	0.0	0.0	0.0	0.0
High School Graduate (n=34)	20.6	50.0	16.7	0.0	16.7	16.7
Some College (n=50)	16.0	57.1	0.0	28.6	14.3	0.0
College Graduate (n=38)	18.4	71.4	14.3	0.0	0.0	14.3
Income						
Less Than \$10,000 (n=9)	22.2	0.0*	0.0*	100.0*	0.0*	0.0*
\$10,000 - 14,999 (n=5)	40.0	100.0	0.0	0.0	0.0	0.0
\$15,000 - 19,999 (n=8)	12.5	0.0	100.0	0.0	0.0	0.0
\$20,000 - 24,999 (n=11)	0.0	0.0	0.0	0.0	0.0	0.0
\$25,000 - 34,999 (n=20)	35.0	83.3	0.0	0.0	0.0	16.7
\$35,000 - 49,999 (n=39)	17.9	71.4	14.3	0.0	14.3	0.0
\$50,000 - 74,999 (n=20)	10.0	50.0	0.0	0.0	50.0	0.0
\$75,000 or More (n=7)	14.3	100.0	0.0	0.0	0.0	0.0

*p (χ^2) < .05

respectively. Table 21 shows that a total of 17.4% of the women aged 18 to 34 have had mammograms. Of these women, 61.9% have had mammograms within the past year. As can be seen in Table 20, 83.9% of women over age 35 have had mammograms. Of those women, 68.5% had them within the past year and another 21.1% had them one to two years prior to the interview. Table 20 also shows the following significant differences across the variables of age and income:

- * As would be expected, the percentage of women ever having a mammogram increases with age, except for those aged 75 and older. Following the same trend, older women generally tend to have mammograms more frequently than those in younger age categories, as can be seen by the fact that while 46.4% of women between 35 and 44 have had a mammogram within the past year, 82.5% of women between 65 and 74 have done so.
- * Excluding those who have household incomes of less than \$10,000, the percentage of women over 35 having a mammogram decreases to the income level of \$35,000 to \$49,999, and then increases with those at higher income levels. The percentages range from 86.7% of those with incomes of between \$10,000 and \$14,999 having had a mammogram, to 68.9% of those with incomes of \$35,000 to \$49,999 having one, to 100.0% of those with incomes over \$75,000 having had one.

Breast Exams

The Ottawa County Behavioral Risk Factor Survey also included two questions concerning the length of time since women had last had a breast exam, as well as their reasons for having them. As can be seen in Table 22, 96.5% of the female respondents had had a breast exam, with 80.9% of them being within the past year, and another 12.4% being between one and two years prior to the interview. Significant differences in the frequency and recency of the last breast exam were only found across the variables of age and income. Specifically, Table 22 indicates that:

CHARACTERISTIC	Ever Had	When Had				
		Less Than 1 Year	1-2 Years	2-3 Years	3-5 Years	More than 5 Years
Overall (n=408)	96.5%	80.9%	12.4%	3.1%	1.5%	2.1%
Area of County						
Grand Haven/Spring Lake (n=102)	96.0	81.1	14.7	2.1	0.0	2.1
Coopersville/Allendale (n=102)	96.0	82.3	13.5	2.1	0.0	2.1
Jenison/Hudsonville (n=102)	97.0	77.6	12.2	4.1	3.1	3.1
Holland/Zeland (n=102)	97.1	82.8	9.1	4.0	3.0	1.0
Race						
White (n=395)	96.4	81.1	12.3	2.9	1.6	2.1
Other (n=9)	100.0	77.8	22.2	0.0	0.0	0.0
Age						
18 - 24 yrs. old (n=42)	80.5*	84.8*	12.1*	3.0*	0.0*	0.0*
25 - 34 yrs. old (n=91)	98.9	89.8	5.7	2.3	2.3	0.0
35 - 44 yrs. old (n=95)	97.9	69.9	22.6	2.2	2.2	3.2
45 - 54 yrs. old (n=64)	98.4	81.0	14.3	3.2	1.6	0.0
55 - 64 yrs. old (n=40)	100.0	76.9	7.7	7.7	0.0	7.7
65 - 74 yrs. old (n=43)	97.7	88.1	7.1	4.8	0.0	0.0
75 + yrs. old (n=33)	96.8	80.0	10.0	0.0	3.3	6.7
Education						
Less than H.S. (n=33)	81.8*	74.1	11.1	7.4	0.0	7.4
High School Graduate (n=140)	97.8	76.1	15.7	3.7	1.5	3.0
Some College (n=132)	97.7	85.0	10.2	2.4	1.6	0.8
College Graduate (n=100)	98.0	85.6	10.3	2.1	1.0	1.0
Income						
Less Than \$10,000 (n=24)	87.0	90.0	5.0	5.0	0.0	0.0
\$10,000 - 14,999 (n=20)	100.0	80.0	5.0	10.0	0.0	5.0
\$15,000 - 19,999 (n=27)	96.3	84.6	11.5	3.8	0.0	0.0
\$20,000 - 24,999 (n=32)	96.8	86.7	13.3	0.0	0.0	0.0
\$25,000 - 34,999 (n=51)	98.0	82.0	10.0	4.0	2.0	2.0
\$35,000 - 49,999 (n=84)	98.8	80.5	13.4	0.0	3.7	2.4
\$50,000 - 74,999 (n=53)	96.2	78.0	16.0	2.0	2.0	2.0
\$75,000 or More (n=42)	100.0	87.8	7.3	4.9	0.0	0.0

*p (χ^2) < .05

Table 23 % of Females Having Had Breast Exams for Various Reasons,
by Demographic Characteristics

CHARACTERISTIC	Routine	Problem — Not Cancer	Cancer
Overall (n=388)	93.5%	3.9%	2.6%
Area of County			
Grand Haven/Spring Lake (n=95)	93.7	4.2	2.1
Coopersville/Allendale (n=96)	93.7	3.2	3.2
Jenison/Hudsonville (n=98)	95.9	2.1	2.1
Holland/Zeland (n=99)	90.8	6.1	3.1
Race			
White (n=375)	93.3	4.0	2.7
Other (n=9)	100.0	0.0	0.0
Age			
18 - 24 yrs. old (n=33)	93.9	6.1	0.0
25 - 34 yrs. old (n=88)	97.7	2.3	0.0
35 - 44 yrs. old (n=93)	93.5	4.3	2.2
45 - 54 yrs. old (n=63)	88.9	6.3	4.8
55 - 64 yrs. old (n=39)	94.9	2.6	2.6
65 - 74 yrs. old (n=42)	92.9	2.4	4.8
75 + yrs. old (n=30)	88.9	3.7	7.4
Education			
Less than H.S. (n=27)	92.3	3.8	3.8
High School Graduate (n=134)	92.4	5.3	2.3
Some College (n=127)	92.9	4.7	2.4
College Graduate (n=97)	95.9	1.0	3.1
Income			
Less Than \$10,000 (n=20)	100.0	0.0	0.0
\$10,000 - 14,999 (n=20)	88.9	5.6	5.6
\$15,000 - 19,999 (n=26)	96.2	3.8	0.0
\$20,000 - 24,999 (n=30)	86.7	6.7	6.7
\$25,000 - 34,999 (n=50)	94.0	4.0	2.0
\$35,000 - 49,999 (n=82)	93.9	2.4	3.7
\$50,000 - 74,999 (n=50)	96.0	4.0	0.0
\$75,000 or More (n=41)	92.7	7.3	0.0

*p (x²) < .05

- * The percentage of females over the age of 25 ever having a breast exam (over 96.0% for each age category) was significantly higher than those aged 24 or younger (80.5%).
- * Females who have at least a high school diploma (over 97.5% of each educational category) are much more likely to have had a breast exam than women who did not graduate from high school (81.8%).

In looking at the reasons females had breast exams, it was found that 93.5% had one as part of a routine checkup, 3.9% had one because of a problem that was not cancer related, and 2.6% had one because they have already had breast cancer. As displayed in Table 23, no significant differences were found across demographic variables as to the reasons why respondents had breast exams.

Pap Tests

The final questions relating to women's health issues dealt with Pap tests, which are designed to detect cancer of the cervix. Female respondents were first asked if they had ever had a Pap test, and those who responded affirmatively were subsequently asked how recently they had their last one and for the reason they had it done. The results concerning whether respondents had had a Pap test and its recency are presented in Table 24, and the results for the reason the Pap test was done are presented in Table 25. Overall, 95.6% of females participating in the survey had ever had a Pap test. A total of 71.5% of those women had one within the past year, 16.0% between one and two years previously, and 4.2% between three and five years prior to the interview. It is usually recommended that women have a Pap test every one to three years, regardless of age. Thus, a total of 87.7% of all female respondents in Ottawa County met this criteria. Significant variances in whether Pap tests had been done, and how recently

Table 24 % of Females Having Had Pap Test, and How Recently, by Demographic Characteristics

CHARACTERISTIC	Ever Had	Less Than				More Than 5 Years
		1 Year	1-2 Years	2-3 Years	3-5 Years	
Overall (n=408)	95.6%	71.5%	16.0%	4.2%	3.4%	5.0%
Area of County						
Grand Haven/Spring Lake (n=102)	95.0	70.5	20.0	2.1	5.3	2.1
Coopersville/Allendale (n=102)	97.1	67.3	17.3	6.1	1.0	8.2
Jenison/Hudsonville (n=102)	98.0	71.7	12.1	5.1	4.0	7.1
Holland/Zeeland (n=102)	92.2	76.7	14.4	3.3	3.3	2.2
Race						
White (n=395)	95.4	71.3	16.0	4.3	3.3	5.1
Other (n=9)	100.0	77.8	22.2	0.0	0.0	0.0
Age						
18 - 24 yrs. old (n=42)	73.8*	90.3*	6.5*	3.2*	0.0*	0.0*
25 - 34 yrs. old (n=91)	100.0	83.5	11.0	4.4	1.1	0.0
35 - 44 yrs. old (n=95)	98.9	66.0	22.3	3.2	4.3	4.3
45 - 54 yrs. old (n=64)	100.0	68.3	25.4	1.6	1.6	3.2
55 - 64 yrs. old (n=40)	97.4	69.4	2.8	8.3	8.3	11.1
65 - 74 yrs. old (n=43)	90.7	68.4	10.5	5.3	10.5	5.3
75 + yrs. old (n=33)	97.0	44.8	24.1	6.9	0.0	24.1
Education						
Less than H.S. (n=33)	78.8*	68.0	4.0	12.0	4.0	12.0
High School Graduate (n=140)	96.4	68.2	17.4	6.1	3.0	5.3
Some College (n=132)	95.4	73.0	17.2	1.6	3.3	4.9
College Graduate (n=100)	100.0	76.0	15.0	3.0	3.0	3.0
Income						
Less Than \$10,000 (n=24)	91.7	81.0	9.5	9.5	0.0	0.0
\$10,000 - 14,999 (n=20)	95.0	58.8	23.5	5.9	5.9	5.9
\$15,000 - 19,999 (n=27)	92.6	56.0	20.0	0.0	12.0	12.0
\$20,000 - 24,999 (n=32)	100.0	70.0	13.3	3.3	3.3	10.0
\$25,000 - 34,999 (n=51)	98.0	75.5	8.2	4.1	6.1	6.1
\$35,000 - 49,999 (n=84)	97.6	68.3	22.0	4.9	2.4	2.4
\$50,000 - 74,999 (n=53)	96.2	74.5	15.7	3.9	2.0	3.9
\$75,000 or More (n=42)	100.0	85.4	12.2	0.0	0.0	2.4

*p (χ^2) < .05

Table 25 % of Females Having Had Pap Tests for Various Reasons, by Demographic Characteristics

CHARACTERISTIC	Routine	Problem
Overall (n=387)	96.9%	3.1%
Area of County		
Grand Haven/Spring Lake (n=95)	98.9	1.1
Coopersville/Allendale (n=99)	93.9	6.1
Jenison/Hudsonville (n=99)	98.0	2.0
Holland/Zeeland (n=94)	96.8	3.2
Race		
White (n=374)	97.1	2.9
Other (n=9)	100.0	0.0
Age		
18 - 24 yrs. old (n=31)	90.3	9.7
25 - 34 yrs. old (n=91)	94.5	5.5
35 - 44 yrs. old (n=94)	96.8	3.2
45 - 54 yrs. old (n=64)	100.0	0.0
55 - 64 yrs. old (n=36)	97.2	2.8
65 - 74 yrs. old (n=39)	100.0	0.0
75 + yrs. old (n=32)	100.0	0.0
Education		
Less than H.S. (n=26)	96.2	3.8
High School Graduate (n=134)	97.0	3.0
Some College (n=124)	96.8	3.2
College Graduate (n=100)	97.0	3.0
Income		
Less Than \$10,000 (n=21)	85.7	14.3
\$10,000 - 14,999 (n=19)	100.0	0.0
\$15,000 - 19,999 (n=25)	92.0	8.0
\$20,000 - 24,999 (n=32)	93.8	6.3
\$25,000 - 34,999 (n=49)	95.9	4.1
\$35,000 - 49,999 (n=82)	97.6	2.4
\$50,000 - 74,999 (n=51)	100.0	0.0
\$75,000 or More (n=41)	100.0	0.0
*p (χ^2) < .05		

they had been done were found within the demographic categories of age and education in Table 24 as follows:

- * The percentage of females between the ages of 18 and 24 who had ever had a Pap test (73.8%) was significantly less than females in each of the other age ranges overall (90.0% or more). Yet, of females who have had a Pap test, a larger percentage of those in the younger age categories (ex. 90.3% between 18 and 24) have had a Pap test performed within the past year than women in the older age ranges (ex. 44.8% over 75).
- * Females who have not completed high school (78.8%) are less likely to have had a Pap test than those with higher educational levels (96.4% of high school graduates, 95.4% of those with some college, 100.0% of college graduates).

The reasons respondents had Pap tests done are presented in Table 25. Overall, 96.9% were done during a routine exam, and 3.1% were done to check a current or previous problem. No significant differences were found across any of the relevant demographic variables.

Prostate and Testicular Exams

The Ottawa County Behavioral Risk Factor Survey also included a pair of questions related to men's health issues. Interviewers asked male respondents if they had ever had a clinical prostate exam to check for lumps, or a testicular exam to detect early signs of cancer. The results of these questions are presented in Table 26. Of the men surveyed, 59.7% had had a prostate exam, and 60.3% had had a testicular exam at some time. As can be seen in the table, responses to these questions varied by age and income as follows:

- * Generally, as age increases, the likelihood that men have had a prostate exam also increases, excluding men aged 75 and older. This trend is especially true in the instance that 25.4% of the men between the ages of 18 and 24 have had prostate exams, while 41.9% of those aged 25 to 34 have had them.
- * Men with incomes of less than \$10,000 (21.4%) are less likely to have had a prostate exam than men in all other income ranges (46.7% and higher).

Table 26 % of Males Having Had Prostate and Testicular Exams,
by Demographic Characteristics

CHARACTERISTIC	Ever Had Prostate Exam	Ever Had Testicular Exam
Overall (n=382)	59.7%	60.3%
Area of County		
Grand Haven/Spring Lake (n=96)	62.5	66.3
Coopersville/Allendale (n=96)	60.4	61.5
Jenison/Hudsonville (n=94)	57.4	55.2
Holland/Zeeland (n=96)	58.3	58.3
Race		
White (n=359)	59.3	59.7
Other (n=21)	61.9	71.4
Age		
18 - 24 yrs. old (n=63)	25.4*	36.5*
25 - 34 yrs. old (n=86)	41.9	57.0
35 - 44 yrs. old (n=94)	54.3	52.7
45 - 54 yrs. old (n=63)	87.3	76.6
55 - 64 yrs. old (n=31)	93.5	86.7
65 - 74 yrs. old (n=28)	96.4	74.1
75 + yrs. old (n=16)	81.3	78.6
Education		
Less than H.S. (n=22)	50.0	54.5
High School Graduate (n=121)	57.9	56.3
Some College (n=109)	55.0	56.0
College Graduate (n=127)	66.9	68.8
Income		
Less Than \$10,000 (n=14)	21.4*	50.0
\$10,000 - 14,999 (n=25)	52.0	45.8
\$15,000 - 19,999 (n=30)	46.7	53.3
\$20,000 - 24,999 (n=41)	61.0	56.4
\$25,000 - 34,999 (n=63)	63.5	62.9
\$35,000 - 49,999 (n=86)	58.1	62.8
\$50,000 - 74,999 (n=66)	71.2	68.2
\$75,000 or More (n=26)	61.5	61.5

*p (x²) < .05

Table 27 % Distribution of Insurance Coverage, by Demographic Characteristics

CHARACTERISTIC	No Insurance
Overall (n=800)	6.3%
Area of County	
Grand Haven/Spring Lake (n=200)	6.0
Coopersville/Allendale (n=200)	8.6
Jenison/Hudsonville (n=200)	3.0
Holland/Zeland (n=200)	7.5
Gender	
Male (n=392)	7.0 <i>27%</i>
Female (n=408)	5.6 <i>28.5%</i>
Race	
White (n=762)	5.9
Other (n=30)	10.0
Age	
18 - 24 yrs. old (n=106)	17.1* <i>18,126</i>
25 - 34 yrs. old (n=178)	6.2 <i>11,036</i>
35 - 44 yrs. old (n=192)	5.2 <i>9,984</i>
45 - 54 yrs. old (n=128)	3.1 <i>3,968</i>
55 - 64 yrs. old (n=72)	8.3 <i>5,976</i>
65 - 74 yrs. old (n=72)	0.0
75 + yrs. old (n=51)	2.0 <i>N=1</i>
Education	
Less than H.S. (n=55)	10.9*
High School Graduate (n=263)	8.0
Some College (n=244)	6.6
College Graduate (n=230)	2.6
Income	
Less Than \$10,000 (n=38)	28.9*
\$10,000 - 14,999 (n=45)	17.8
\$15,000 - 19,999 (n=57)	15.8
\$20,000 - 24,999 (n=73)	9.6
\$25,000 - 34,999 (n=114)	5.3
\$35,000 - 49,999 (n=172)	0.6
\$50,000 - 74,999 (n=120)	0.8
\$75,000 or More (n=71)	4.2

*N total
= 72*

*4909
7.26
15.64*

*p (x²) < .05

- * Men between the ages of 18 and 24 (36.5%) are less likely to have had a testicular exam than men in all other age ranges (52.7% and higher).

ACCESS TO HEALTH CARE

Insurance Coverage

With regard to health care costs, respondents were asked if they had any kind of health care coverage, including health insurance, prepaid plans such as HMOs (health maintenance organizations), or government plans such as Medicare. Overall, 6.3% of the respondents indicated that they had no type of health care coverage. Table 27 shows the distribution of those who do not have such coverage across potentially relevant demographic characteristics. Specifically, the table shows that health care coverage varies by age, education, and income as follows:

- * A larger percentage of respondents between the ages of 18 and 24 (17.1%) have no health insurance than persons in all other age categories (8.3% and lower).
- * Participants who have less than a high school education (10.9%) are significantly more likely to have no health care coverage than those with more education.
- * As would be expected, as income increases, the percentage of respondents with no health insurance declines.

Difficulty Obtaining Services

In order to assess the availability of health care in Ottawa County, respondents were asked if they or any member of their family had had difficulty obtaining necessary health care services within the past three years. Those who did have difficulties were then asked why they had problems receiving appropriate health care.

As shown in Table 28, 8.2% of the participants indicated that they had some problems

Table 28 % Distribution Having Difficulty Obtaining Services, by Demographic Characteristics

CHARACTERISTIC	Have Had Problems Obtaining Services
Overall (n=800)	8.2%
Area of County	
Grand Haven/Spring Lake (n=200)	7.6
Coopersville/Allendale (n=200)	9.6
Jenison/Hudsonville (n=200)	5.0
Holland/Zeeland (n=200)	10.6
Gender	
Male (n=392)	8.3
Female (n=408)	8.1
Race	
White (n=762)	8.1
Other (n=30)	3.3
Age	
18 - 24 yrs. old (n=106)	15.1*
25 - 34 yrs. old (n=178)	2.3
35 - 44 yrs. old (n=192)	9.4
45 - 54 yrs. old (n=128)	7.0
55 - 64 yrs. old (n=72)	11.1
65 - 74 yrs. old (n=72)	7.1
75 + yrs. old (n=51)	8.2
Education	
Less than H.S. (n=55)	9.3
High School Graduate (n=263)	9.5
Some College (n=244)	8.3
College Graduate (n=230)	5.2
Income	
Less Than \$10,000 (n=38)	13.2*
\$10,000 - 14,999 (n=45)	20.0
\$15,000 - 19,999 (n=57)	15.8
\$20,000 - 24,999 (n=73)	12.3
\$25,000 - 34,999 (n=114)	4.4
\$35,000 - 49,999 (n=172)	4.7
\$50,000 - 74,999 (n=120)	6.7
\$75,000 or More (n=71)	1.4

*p (x²) < .05

in this area at least once. The table also shows that having such problems varies according to age and income in that:

- * Respondents between the ages of 18 and 24 (15.1%) are much more likely to have problems obtaining health care than persons within older age categories.
- * As would be expected, a larger percentage of people with lower income levels have had problems gaining such services than those with higher incomes, with the largest proportion (20.0%) of those having problems being those with incomes between \$10,000 and \$14,999.

Of the 8.2% (n=69) of respondents who had such difficulties, about half (47.8%, n=33) of them indicated that it was because they had no health insurance. Another 13.0% (n=9) said they could not get an appointment with a doctor, 5.8% (n=4), 2.9% (n=2) did not know who to call, and 1.4% (n=1) said they had to wait too long. Approximately one third (29.0%, n=20) gave other reasons than the ones listed, which can be seen in Appendix A.

COMMUNITY PERCEPTIONS

Most Serious Problem

Respondents to the Ottawa County Behavioral Risk Factor Survey were also asked what they felt was the most important problem in their community today. Participants responded openly to this question, with possible answers only being read as necessary. Overall, respondents' answer largely fell into the categories listed in Tables 29a and 29b. As can be seen, people saw the most prevalent problems being crime (28.7%), drugs and alcohol (26.3%), and education (12.0%). Following these, 6.3% indicated health care, 3.6% named help for the needy, 2.9% said jobs or unemployment, 2.6% indicated property taxes, 2.3% named environmental problems, and 2.8% said the streets were the most serious problem in their

Table 29a

% Distribution of Perception of Most Serious Problem in Ottawa County,
by Demographic Characteristics

CHARACTERISTIC	Crime	Drugs & Alcohol	Education	Health Care	Help for the Needy
Overall (n=800)	28.7%	26.3%	12.0%	6.3%	3.6%
Area of County*					
Grand Haven/Spring Lake (n=200)	26.1	24.6	17.6	8.0	3.0
Coopersville/Allendale (n=200)	20.6	27.6	13.6	8.0	2.5
Jenison/Hudsonville (n=200)	25.0	31.5	9.0	5.5	4.5
Holland/Zeeland (n=200)	43.0	21.5	8.0	3.5	4.5
Gender					
Male (n=392)	29.7	25.9	11.3	5.4	3.1
Female (n=408)	27.7	26.7	12.7	7.1	4.2
Race					
White (n=762)	28.4	26.5	12.1	6.4	3.4
Other (n=30)	43.3	23.3	6.7	0.0	6.7
Age					
18 - 24 yrs. old (n=106)	24.5	27.4	15.1	5.7	1.9
25 - 34 yrs. old (n=178)	28.2	27.7	15.8	5.1	2.8
35 - 44 yrs. old (n=192)	24.5	29.2	12.0	6.3	6.3
45 - 54 yrs. old (n=128)	34.4	29.7	7.8	6.3	3.9
55 - 64 yrs. old (n=72)	31.9	26.4	8.3	6.9	1.4
65 - 74 yrs. old (n=72)	31.0	16.9	7.0	4.2	2.8
75 + yrs. old (n=51)	33.3	13.7	15.7	13.7	3.9
Education					
Less than H.S. (n=55)	32.7	27.3	10.9	1.8	3.6
High School Graduate (n=263)	30.8	22.1	9.9	6.8	2.7
Some College (n=244)	27.2	30.5	11.1	6.2	2.5
College Graduate (n=230)	27.1	27.1	15.7	6.6	6.1
Income					
Less Than \$10,000 (n=38)	21.1	28.9	15.8	5.3	5.3
\$10,000 - 14,999 (n=45)	31.1	20.0	17.8	6.7	0.0
\$15,000 - 19,999 (n=57)	28.1	21.1	10.5	12.3	3.5
\$20,000 - 24,999 (n=73)	31.5	30.1	5.5	5.5	8.2
\$25,000 - 34,999 (n=114)	29.8	23.7	11.4	6.1	0.9
\$35,000 - 49,999 (n=172)	24.0	31.6	12.9	6.4	4.1
\$50,000 - 74,999 (n=120)	28.3	28.3	14.2	2.5	5.8
\$75,000 or More (n=71)	31.0	31.0	14.1	5.6	2.8

*p (x²) < .05

Table 29b % Distribution of Perception of Most Serious Problem in Ottawa County,
by Demographic Characteristics (continued)

CHARACTERISTIC	Jobs	Property Taxes	Environment	Streets	Other
Overall (n=800)	2.9%	2.6%	2.3%	2.8%	12.5%
Area of County*					
Grand Haven/Spring Lake (n=200)	5.0	2.0	3.0	1.5	9.0
Coopersville/Allendale (n=200)	2.5	3.0	3.5	4.0	14.6
Jenison/Hudsonville (n=200)	1.5	3.5	0.5	2.5	16.5
Holland/Zeeland (n=200)	2.5	2.0	2.0	3.0	10.0
Gender					
Male (n=392)	4.1	3.3	2.6	2.1	12.6
Female (n=408)	1.7	2.0	2.0	3.4	12.5
Race					
White (n=762)	2.9	2.6	2.4	2.6	12.6
Other (n=30)	3.3	3.3	0.0	3.3	10.0
Age					
18 - 24 yrs. old (n=106)	8.5	2.8	2.8	0.9	10.4
25 - 34 yrs. old (n=178)	1.7	4.0	2.3	2.8	9.6
35 - 44 yrs. old (n=192)	3.1	1.6	3.1	3.1	10.9
45 - 54 yrs. old (n=128)	1.6	2.3	0.8	3.1	10.2
55 - 64 yrs. old (n=72)	2.8	4.2	1.4	1.4	15.3
65 - 74 yrs. old (n=72)	1.4	1.4	2.8	5.6	26.8
75 + yrs. old (n=51)	0.0	2.0	2.0	0.0	15.7
Education					
Less than H.S. (n=55)	0.0	3.6	0.0	1.8	18.2
High School Graduate (n=263)	4.2	2.3	2.3	4.6	14.4
Some College (n=244)	3.3	2.9	3.3	2.5	10.7
College Graduate (n=230)	1.7	2.6	1.7	0.9	10.5
Income					
Less Than \$10,000 (n=38)	5.3	2.6	5.3	0.0	10.5
\$10,000 - 14,999 (n=45)	6.7	2.2	0.0	0.0	15.6
\$15,000 - 19,999 (n=57)	7.0	1.8	1.8	1.8	12.3
\$20,000 - 24,999 (n=73)	2.7	2.7	1.4	2.7	9.6
\$25,000 - 34,999 (n=114)	3.5	2.6	3.5	4.4	14.0
\$35,000 - 49,999 (n=172)	0.6	1.8	4.1	2.3	12.3
\$50,000 - 74,999 (n=120)	2.5	3.3	1.7	3.3	10.0
\$75,000 or More (n=71)	2.8	2.8	0.0	2.8	7.0

*p (x²) < .05

community. A total of 12.5% of the respondents replied with a different problem than the common ones chosen, which are listed in Appendix B. With regard to demographic characteristics, significant variances were only found across the areas of the county. Primarily, this is a result of the following:

- * Persons living in the Holland/Zeeland area (43.0%) were much more likely to name crime as the most significant problem in their community than those in any of the other areas (GH/SL 26.1%, J/H 25.0%, C/A 20.6%).
- * A greater percentage of respondents living in the Jenison/Hudsonville area (31.5%) indicated that drugs and alcohol abuse was the most important problem in their community than those in the other areas (21.5% to 27.6%).
- * Respondents in the areas of Grand Haven/Spring Lake (17.6%) and Coopersville/Allendale (13.6%) more often chose education as the primary problem in their community than persons in the other areas (J/H 9.0%, H/Z 8.0%).

Health Services

In the survey, respondents were asked to evaluate six different services provided in their community. For each of the services, participants were asked to indicate whether they thought the service was adequate or needed to be expanded. Table 30 shows the percentage of persons who thought the various services needed to be expanded. Overall, teen pregnancy prevention services and drug and alcohol prevention programs were most often indicated as needing to be expanded (72.5% and 60.0% respectively). Furthermore, the following percentages of respondents indicated that each service needed to be expanded: services to persons over the age of 65 (37.7%), routine health screenings (33.9%), prenatal and newborn care services (29.3%), and immunization services (21.2%). Table 30 displays several interesting variances across the variables of area of county, gender, race, and age as follows:

Table 30 % Distribution of Perception of Health Services in Ottawa County, by Demographic Characteristics

CHARACTERISTIC	% Who Think Need to Expand					
	Immunization Services	Health Screening	Services to Over 65	Prenatal/ Newborn Services	Drug/ Alcohol Prevention	Teen Pregnancy Prevention
Overall (n=800)	21.2%	33.9%	37.7%	29.3%	60.0%	72.5%
Area of County						
Grand Haven/Spring Lake (n=200)	20.4	37.5	35.1	28.9	53.2*	80.3*
Coopersville/Allendale (n=200)	25.5	32.6	39.7	29.2	56.3	68.1
Jenison/Hudsonville (n=200)	21.6	29.1	40.2	28.3	71.3	64.7
Holland/Zeeland (n=200)	17.7	35.9	36.5	30.5	60.4	76.5
Gender						
Male (n=392)	31.3*	34.8	43.9*	39.9*	62.9	74.2
Female (n=408)	11.9	33.0	31.0	18.8	56.8	70.7
Race						
White (n=762)	19.9*	32.8*	36.7	27.9*	59.0	71.7
Other (n=30)	57.1	55.0	55.0	54.5	77.8	88.0
Age						
18 - 24 yrs. old (n=106)	35.3*	37.5	51.6*	49.4*	66.7	79.5
25 - 34 yrs. old (n=178)	21.4	36.7	45.2	26.4	62.6	76.2
35 - 44 yrs. old (n=192)	21.2	36.7	44.4	29.0	62.6	72.3
45 - 54 yrs. old (n=128)	23.1	38.7	37.6	29.2	56.7	70.3
55 - 64 yrs. old (n=72)	8.8	25.0	34.0	14.3	43.1	58.1
65 - 74 yrs. old (n=72)	12.5	18.0	20.3	15.0	63.8	69.2
75 + yrs. old (n=51)	16.7	21.4	13.0	15.0	50.0	67.9
Education						
Less than H.S. (n=55)	26.3	32.4	42.1	22.9	53.7	66.7
High School Graduate (n=263)	18.8	26.8	36.5	26.6	58.2	70.2
Some College (n=244)	21.9	37.3	37.4	31.5	62.2	74.4
College Graduate (n=230)	21.1	38.2	36.9	29.8	60.7	75.0
Income						
Less Than \$10,000 (n=38)	36.0	55.6	50.0	50.0	57.1	84.6
\$10,000 - 14,999 (n=45)	24.2	25.0	30.0	27.3	50.0	67.6
\$15,000 - 19,999 (n=57)	22.2	29.5	40.0	42.1	65.1	77.8
\$20,000 - 24,999 (n=73)	29.3	34.8	37.5	39.6	65.5	82.2
\$25,000 - 34,999 (n=114)	26.6	30.7	35.8	26.1	58.2	65.8
\$35,000 - 49,999 (n=172)	23.6	35.8	44.1	27.4	59.5	73.4
\$50,000 - 74,999 (n=120)	12.8	32.2	38.4	23.9	58.8	72.4
\$75,000 or More (n=71)	15.5	43.1	43.5	29.1	70.9	73.5

*p (x²) < .05

- * A greater percentage of respondents in Jenison/Hudsonville (71.3%) thought that drug and alcohol prevention services needed to be expanded than people in all other areas (H/Z 60.4%, C/A 56.3%, GH/SL 53.2%). Additionally, those living in the Grand Haven/Spring Lake area (80.3%) were more likely to indicate that teen pregnancy prevention services needed to be expanded than those in other areas (H/Z 76.5%, C/A 68.1%, J/H 64.7%).
- * A larger percentage of males than females thought that immunization services (31.3% vs. 11.9%), services to persons over 65 (43.9% vs. 31.0%), and prenatal and newborn care services (39.9% vs. 18.8%) needed to be expanded.
- * Those with a Caucasian background were less likely than those with another racial background to think that immunization services (19.9% vs. 57.1%), routine health screening services (32.8% vs. 55.0%), and prenatal and newborn care services (27.9% vs. 54.5%) needed to be expanded.
- * With regard to age differences, respondents between the ages of 18 and 24 were significantly more likely to indicate that immunization services and prenatal and newborn care services needed to be expanded than those in any of the older age categories. Additionally, as age increases, the proportion of persons who think services to those over 65 need to be expanded decreases.

ATTITUDES RELATED TO AIDS/HIV

As AIDS is a predominant social concern in our society today, the survey included several issues related to the topic. The respondents were first asked whether they would be willing to work next to or near a person who is infected with the AIDS virus. Next, they were asked that if they had a child in school, at what age would they want the school to begin AIDS education. The final question in this area asked participants that if they had a teenager who was sexually active, would they encourage him or her to use a condom. The results of these questions are presented in Table 31. As can be seen, 68.2% of the respondents would be willing to work with a person infected with AIDS. The average grade that people thought AIDS education should begin was approximately 3rd to 4th grade. Finally, 62.1% would recommend

that their sexually active teen should use a condom, while 31.2% would give other advice. The following variances in answers were found across the variables of gender, age, education, and income:

- * Females and males differed in their responses on all three questions on this issue. While 64.7% of male respondents would be willing to work with an AIDS-infected person, 71.6% of females would do so. On average, females thought that AIDS education should begin somewhat earlier than did males (approximately 3rd grade and 4th grade respectively). Finally, more females than males would recommend that their teenagers use a condom (66.0% vs. 58.0%), and males would be more likely to give other advice than females (36.3% vs. 26.4%).
- * With regard to age, it was found that those in younger age categories would be more likely to recommend that their teenagers use a condom, ranging from 75.5% of those aged 18 to 24, to 45.8% of those aged 75 and older. Consequently, those in older age categories would be more likely to give other advice.
- * In general, those with higher levels of education would be more willing to work with a person infected with AIDS than those with less education, ranging from 58.2% of those with less than a high school education, to 76.8% of college graduates answering affirmatively.

Table 31

Respondent Attitudes on HIV/AIDS Related Issues, by
Demographic Characteristics

CHARACTERISTIC	% Willing to Work With Infected Co-Worker	Average Grade AIDS Education Should Begin	Recommendation to Sexually Active Teen	
			Use Condom	Other Advice
Overall (n=800)	68.2%	3.6	62.1%	31.2%
Area of County				
Grand Haven/Spring Lake (n=200)	68.0	3.5	72.1	22.3
Coopersville/Allendale (n=200)	63.5	3.9	59.1	35.4
Jenison/Hudsonville (n=200)	67.7	3.8	56.1	35.2
Holland/Zeeland (n=200)	73.7	3.3	61.1	31.8
Gender				
Male (n=392)	64.7*	4.0*	58.0*	36.3*
Female (n=408)	71.6	3.2	66.0	26.4
Race				
White (n=762)	67.6	3.6	62.0	31.5
Other (n=30)	80.0	4.0	63.3	23.3
Age				
18 - 24 yrs. old (n=106)	75.2	4.0	75.5*	20.8*
25 - 34 yrs. old (n=178)	69.5	3.4	65.3	31.8
35 - 44 yrs. old (n=192)	69.8	3.3	57.7	36.0
45 - 54 yrs. old (n=128)	73.2	3.7	67.7	27.6
55 - 64 yrs. old (n=72)	54.9	4.3	59.7	30.6
65 - 74 yrs. old (n=72)	64.8	4.1	48.6	32.9
75 + yrs. old (n=51)	53.1	3.4	45.8	41.7
Education				
Less than H.S. (n=55)	58.2*	3.6	65.5	29.1
High School Graduate (n=263)	61.3	3.9	57.0	34.1
Some College (n=244)	70.4	3.6	62.8	30.6
College Graduate (n=230)	76.8	3.4	66.7	28.5
Income				
Less Than \$10,000 (n=38)	73.7	3.1*	71.1	23.7
\$10,000 - 14,999 (n=45)	56.8	4.3	62.2	26.7
\$15,000 - 19,999 (n=57)	61.4	4.6	64.9	26.3
\$20,000 - 24,999 (n=73)	61.6	3.9	60.0	34.3
\$25,000 - 34,999 (n=114)	69.3	3.8	56.1	39.5
\$35,000 - 49,999 (n=172)	71.8	3.4	66.5	30.6
\$50,000 - 74,999 (n=120)	72.5	3.7	59.7	32.8
\$75,000 or More (n=71)	79.4	2.9	73.9	20.3

*p (χ^2) < .05

APPENDIX A

REASONS FOR DIFFICULTY OBTAINING HEALTH SERVICES

Health Insurance Problems

No insurance because of preexisting condition
Self-employed, thus it's hard to find good health coverage
Problem getting the coverage
When unemployed, it's hard to afford health insurance
Problems with medicaid availability

Billing

Hard time getting the insurance company to pay for it all
Health care is available, but it is tough to get insurance to pay deductible
Problems with billing

Doctors

Difficult to find a family practice doctor with a free schedule
Incompetent doctors--had no choice of doctor

APPENDIX B

MOST IMPORTANT COMMUNITY PROBLEM

All of the above (23)

None (19)

Family Issues

Breakdown of the family

Not enough love and interest in children

Family issues

Discipline and family values

Parental involvement

Lack of discipline in the home

Lack of care by the immediate families of the elderly

Lack of strong family values

Lack of parental attention

Family involvement

Integrity of the family

Lack of family unity

Lack of family structure

Need for 2 parent families (stability)

Television, way young people are brought up

Morality

Morals and values

Moral problems and decline: spiritual

Godless society-key to all of those other problems

Moral standards need to be improved

Government

Intrusion of government into others lives

Too much government

Taxes

American people rights are being taken away

Liberalism

Too much for others in other countries-don't hand out money

Crime

Crime and drugs & alcohol (5)

Stealing

Gangs

Education

Health education

Education

Education/drugs alcohol

Problems with Youth

Underage drinking

Teenage pregnancies

Overcrowding in schools

Community Growth

Rapid growth

Too many cars

Miscellaneous

Noise ordinances

Benefits for senior citizens

Racism

Mental health

APPENDIX C

ADDITIONAL COMMENTS

AIDS & Teenage Sexuality

Abstinence needs to play a greater role in sexual education

We should teach our children abstinence

Discourage teens from sex.

Pro aids education-abstinence isn't the answer

On teenagers having sex, abstinence should be encouraged

There are other methods for dealing with the sexual aspects

No problem working with AIDS patients, but promiscuity should not be permitted

Parents must be home with their children more and AIDS awareness should be taught by parents

Make sure to have AIDS checkups

Nurses should be informed if patient under their care has AIDS

Government and Health Care

Government doesn't have any right in health care-shouldn't handle health

Health care services are available if people want to work, don't need national system

Miscellaneous

Services for older people, such as transportation, household/yard help would be helpful

Frightening that there are so many people without health care because of money

The elderly do not get enough attention from their families

Educate people on every subject in school!!! We're not nearly as educated as we should be

The community could use more advertisements from Ottawa County health services

Services are pretty good, and we do have problems, but no crisis

There would be less crime, drinking, and murders if people would come to accept Jesus as their
Savior

Compliments

Ottawa County Health Department is very clean, workers very nice!!!

Ottawa County has done very well in community service

Appreciates survey, great health department

Admirable that someone is doing this

Good survey

Very good idea to get people's opinion about the health services

Good idea to do the survey

Hope the survey is useful to the community

Glad someone is doing this

CONTRIBUTORS

The collaborator from the Ottawa County Health Department was Lisa Stefanovsky.

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The Director of the Carl Frost Center for Social Science Research is Charles Green, Associate Professor of Psychology. The administrator is Milly Hudgins.

Ottawa County Behavioral Risk Factor Survey

Hello, I'm _____ at Hope College. We're doing a study of the health practices of Ottawa County residents. Your phone number has been randomly selected to be included in this study, and we'd like to ask some questions about things people do which may affect their health. This information will help local agencies better serve your communities' needs.

Are you a resident of Ottawa County? Yes No

(If YES) - The survey will take several minutes to complete, and will include personal health questions, as well as questions about community health issues. Your answers will be kept strictly anonymous and confidential, and only general statistical information will be released. You are also free to skip any questions if you feel uncomfortable. Would you be willing to participate in the study?

(If YES) Great! If you would like me to clarify a question or would rather not answer certain questions, please let me know.
What city or township do you live in?

(If NO) - Thank you for your time.

(If NO) - I'm sorry to bother you, but we are only surveying Ottawa County residents.
Thank you for your time.

Demographics

How many children live in your household who are...
(Code 7 if 7 or more children for any answer)

(Please read each answer for response)

less than 5 years old	-
5 through 12 years old	-
13 through 17 years old	-
Refused	9

Are you currently:

(Please read)

Employed for wages	1
Self-employed	2
Out of work for more than 1 year	3
Out of work for less than 1 year	4
Homemaker	5
Student	6
Retired	7
Unable to work	8
Refused	9

What is the highest grade or year of school you completed?

(Read only if necessary)

Never attended school or kindergarten only	1
Grades 1 through 8 (Elementary)	2
Grades 9 through 11 (Some high school)	3
Grade 12 or GED (High school graduate)	4
College 1 year to 3 years (Some college or technical school)	5
College 4 years or more (College graduate)	6
Refused	9

What is your age?

Age in years	
Don't know/Not sure	77
Refused	99

What is your ethnicity?

(Please read if necessary)

Caucasian	1
African-American	2
Asian-American	3
American Indian	4
Hispanic	5
Other: _____	6
Don't know/Not sure	7
Refused	9

Which of the following categories best describes your annual household income from all sources?

(Please read)

Less than \$10,000	01
\$10,000 to less than \$15,000	02
\$15,000 to less than \$20,000	03
\$20,000 to less than \$25,000	04
\$25,000 to less than \$35,000	05
\$ 35,000 to less than \$50,000	06
\$50,000 to less than \$75,000	07
Over \$75,000	08
Don't know/Not sure	09
Refused	10

About how much do you weigh without shoes? (Round fractions up)

Weight (in pounds)	
Don't know/Not sure	$\frac{\quad}{777}$
Refused	999

About how tall are you without shoes? (Round fractions down)

Height (in ft/inches)	$\frac{\quad}{\quad}$
Don't know/Not sure	$\frac{\quad}{777}$
Refused	999

Community Health Issues

What do you feel is the most important problem in your community today?

(Please read)

Crime	01
Drugs and alcohol	02
Education	03
Health care	04
Help for the needy	05
Jobs	06
Property taxes	07
Environment	08
Streets	09
Other:_____	10

The next few questions focus on the services provided in your community.

For each of following areas, please indicate if you think the services need to be expanded, if they are adequate as they are, or if you are not sure about the particular area.

immunization services
routine preventive health screening services
services to individuals over the age of 65
prenatal and newborn care services
drug and alcohol prevention services
teen pregnancy prevention services

Expand	1
Adequate	2
Don't Know/Not sure	7
Refused	9

Personal Health Issues

Would you say that in general your health is:

(Please read)

Excellent	1
Very Good	2
Good	3
Fair	4
Poor	5
Don't Know/Not sure	7
Refused	9

Do you have any kind of health care coverage, including health insurance, prepaid plans such as HMOs (health maintenance organizations), or government plans such as Medicare?

Yes	1
No	2
Don't Know/Not sure	7
Refused	9

In the past three years, have you or any member of your immediate family had difficulty obtaining necessary health care services?

Yes	1
No (Skip next question)	2
Don't know/Not sure	7
Refused	9

Which of the following best describes why you had a difficult time?

(Please read)

No insurance	1
Couldn't get appointment with doctor	2
Transportation	3
You had to wait too long	4
You didn't know who to call	5
Other: _____	6

About how long has it been since you last had your blood pressure taken by a doctor, nurse, or other health professional?

(Read only if necessary)

Within the past 6 months (1 to 6 months ago)	1
Within the past year (7 to 12 months ago)	2
Within the past two years (1 to 2 years ago)	3
Within the past 5 years (2 to 5 years ago)	4
5 or more years ago	5
Never (Skip next two questions)	8
Don't know/Not sure	7
Refused	9

Have you ever been told by a doctor, nurse, or other health professional that you have high blood pressure?

Yes	1
No (Skip next question)	2
Don't know/Not sure	7
Refused	9

Did the health professional recommend a treatment such as medication, change in diet, physical activity, or regular checkups?

Yes	1
No	2
Don't know/Not sure	7
Refused	9

During the past month, did you participate in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise?

Yes	1
No (Skip next two questions)	2
Don't know/Not sure	7
Refused	9

Please think about the activity or exercise that you spent the most time doing during the past month. How many times per week or per month did you take part in this activity during the past month?

Times per week:	--
Times per month:	--
Don't know/Not sure	77
Refused	99

And when you took part in this activity, for how many minutes or hours did you usually keep at it?

Hours and minutes	:
Don't know/Not sure	777
Refused	999

Blood cholesterol is a fatty substance found in the blood. Have you ever had your blood cholesterol checked?

Yes	1
No (Skip next two questions)	2
Don't know/Not sure	7
Refused	9

About how long has it been since you last had your blood cholesterol checked?

(Read only if necessary)

Within the past year (1 to 12 months ago)	1
Within the past two years (1 to 2 years ago)	2
Within the past 5 years (2 to 5 years ago)	3
5 or more years ago	4
Don't know/Not sure	7
Refused	9

Have you ever been told by a doctor or other health professional that your blood cholesterol is high?

Yes	1
No	2
Don't know/Not sure	7
Refused	9

Are you now trying to lose weight?

Yes	1
No (Skip next question)	2
Refused	9

Have you increased your physical activity to lose weight?

Yes	1
No	2
Don't know/Not sure	7
Refused	9

In the past 2 years, have you had a routine dental checkup?

Yes (Skip next question)	1
No	2
Don't Know/Not sure	7
Refused	9

What was the reason that you did not go in for a routine visit?

No way to pay for services	1
Lack of dentists who provide services to Medicaid patients	2
Transportation	3
Fear of dental treatment/didn't want to go	4
Too busy	5
Other: _____	6
Don't know/Not sure	7
Refused	9

Have you smoked at least 100 cigarettes in your entire life?
(5 packs=100 cigarettes)

Yes	1
No (skip next 2 questions)	2
Don't know/Not sure (skip next 2 questions)	7
Refused (skip next 2 questions)	9

Do you smoke cigarettes now?

Yes	1
No (Skip next question)	2
Refused (Skip next question)	9

On the average, about how many cigarettes a day do you now smoke?

Number of cigarettes (1 pack=20 cigarettes)	__
Don't smoke regularly	88
Refused	99

During the past month, how many days per week or per month did you drink any alcoholic beverages, on the average?

Days per week (If none, skip next 3 questions)	1 __
Days per month	2 __
Don't know/Not sure	777
Refused	999

A drink is 1 can or bottle of beer, 1 glass of wine, 1 can or bottle of wine cooler, 1 cocktail, or 1 shot of liquor. On the days when you drank, about how many drinks did you drink on the average?

Number of drinks	
Don't know/Not sure	<u>77</u>
Refused	99

Considering all types of alcoholic beverages, how many times during the past month did you have 5 or more drinks on an occasion?

Number of times	
None	<u>88</u>
Don't know/Not sure	77
Refused	99

During the past month, how many times have you driven when you've had perhaps too much to drink?

Number of times	
None	<u>88</u>
Don't know/Not sure	77
Refused	99

How often do you use seatbelts when you drive or ride in a car?

Would you say: (Please read)

Always	1
Nearly always	2
Sometimes	3
Seldom	4
Never	5
Don't know/Not sure	7
Never drive or ride in a car	8
Refused	9

Do you feel that stress, depression, or problems with emotions have been a problem for you in the past month?

Yes	1
No	2
Don't know//Not sure	7
Refused	9

Indicate sex of respondent (Ask only if necessary)

Male	1
Female	2

(Branch to Women's or Men's Health)

Women's Health

The next few questions are about women's health issues. If you feel uncomfortable answering any of the them, please let me know and we'll go to the next question.

A mammogram is an x-ray of the breast to look for cancer. Have you ever had a mammogram?

Yes	1
No (Skip next question)	2
Don't know/Not sure	7
Refused	9

How long has it been since you had your last mammogram?

(Read only if necessary)

Within the past year (1 to 12 months ago)	1
Within the past 2 years (1 to 2 years ago)	2
Within the past 3 years (2 to 3 years ago)	3
Within the past 5 years (3 to 5 years ago)	4
5 or more years ago	5
Don't know/Not sure	7
Refused	9

A breast exam is when a health professional feels the breast tissue for lumps. How long has it been since your last breast exam?

(Read only if necessary)

Within the past year (1 to 12 months ago)	1
Within the past 2 years (1 to 2 years ago)	2
Within the past 3 years (2 to 3 years ago)	3
Within the past 5 years (3 to 5 years ago)	4
5 or more years ago	5
Never (Skip next question)	8
Don't know/Not sure	7
Refused	9

Was your last breast exam done as part of a routine checkup, because of a breast problem other than cancer, or because you've already had breast cancer?

Routine checkup	1
Breast problem other than cancer	2
Had breast cancer	3
Don't know/Not sure	7
Refused	9

A Pap test is a test for cancer of the cervix. Have you ever had a Pap test?

Yes	1
No (Skip next 2 questions)	2
Don't know/Not sure	7
Refused	9

How long has it been since you had your last Pap test?

(Read only if necessary)

Within the past year (1 to 12 months ago)	1
Within the past 2 years (1 to 2 years ago)	2
Within the past 3 years (2 to 3 years ago)	3
Within the past 5 years (3 to 5 years ago)	4
5 or more years ago	5
Don't know/Not sure	7
Refused	9

Was your last Pap test done as part of a routine exam, or to check a current or previous problem?

Routine exam	1
Check current or previous problem	2
Don't know/Not sure	7
Refused	9

Men's Health

The next two questions are about men's health issues related to the risk of getting cancer. If you feel uncomfortable answering either of them, please let me know and we'll go to the next question.

A clinical prostate exam is when a health professional feels the prostate for lumps. Have you ever had a prostate exam?

Yes	1
No	2
Don't know/Not sure	7
Refused	9

A testicular exam is when a health professional checks the testicles for signs of cancer. Have you ever had a testicular exam?

Yes	1
No	2
Don't know/Not sure	7
Refused	9

AIDS Issues

The last few questions are about the national health problem of AIDS. Please remember that your answers are confidential and that you don't have to answer every question if you don't want to.

Would you be willing to work next to or near a person who is infected with the AIDS virus?

Yes	1
No	2
Don't know/Not sure	7
Refused	9

If you had a child in school, at what age do you think he or she should begin AIDS education?

Kindergarten	00
Grade	
Never	88
Don't know/Not sure	77
Refused	99

If you had a teenager who was sexually active, would you encourage him or her to use a condom?

Yes	1
No	2
Would give other advice	3
Don't know/Not sure	7
Refused	9

That's my last question. Again, let me assure you that all of your answers will remain completely private and confidential, as everyone's answers will be combined to give community agencies general information about the health practices of residents of Ottawa County.

Do you have any additional comments?

Thank you for your time and cooperation.