

Bay County Comprehensive Community Health Assessment 2011/2012

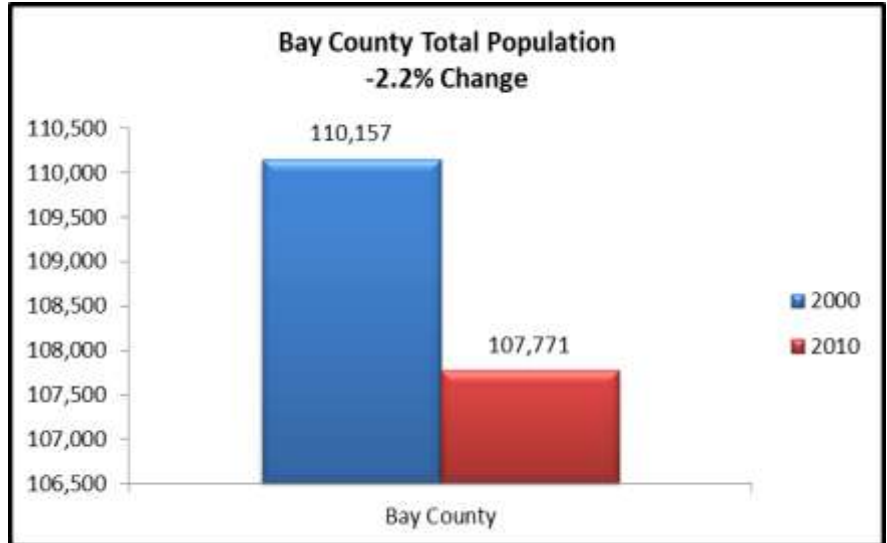
In Partnership with McLaren Bay Region, Bay Health Plan, and Bay
Arenac Behavioral Health
Additional funding from the Bay Area Community Foundation

Population Trends in Bay County

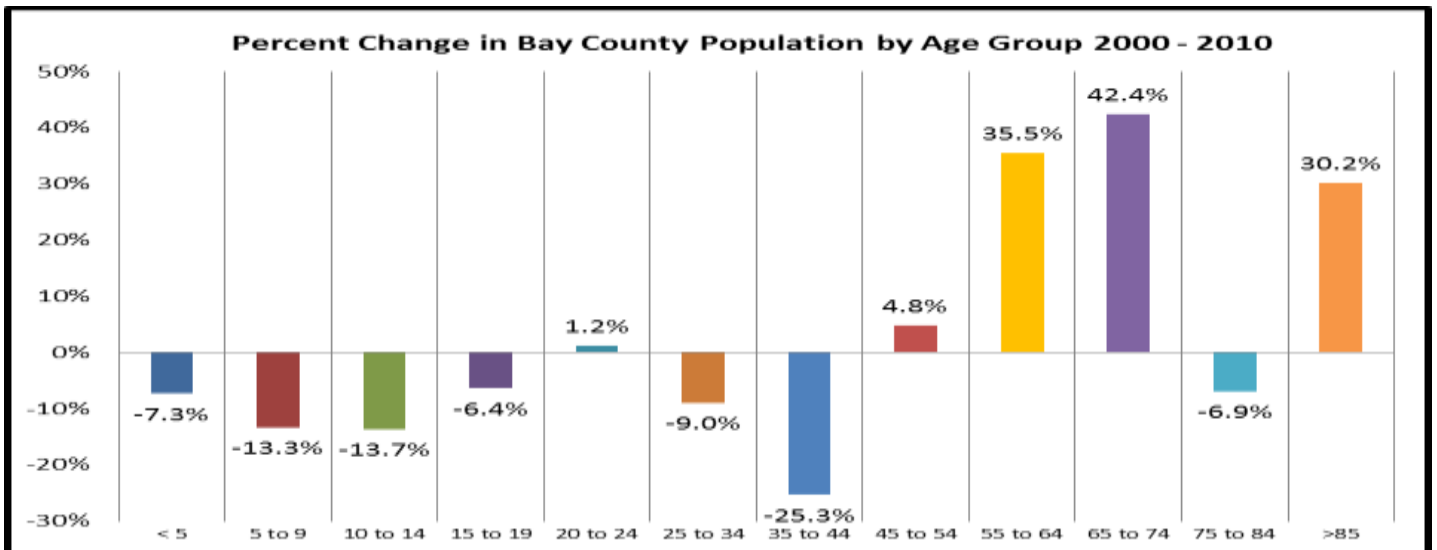
2011/2012 Bay County Community Health Assessment



Bay County saw a 2.2% loss in total population over the last 10 years.



Source: U.S. Census Bureau, 2000 & American Communities Survey, 2010

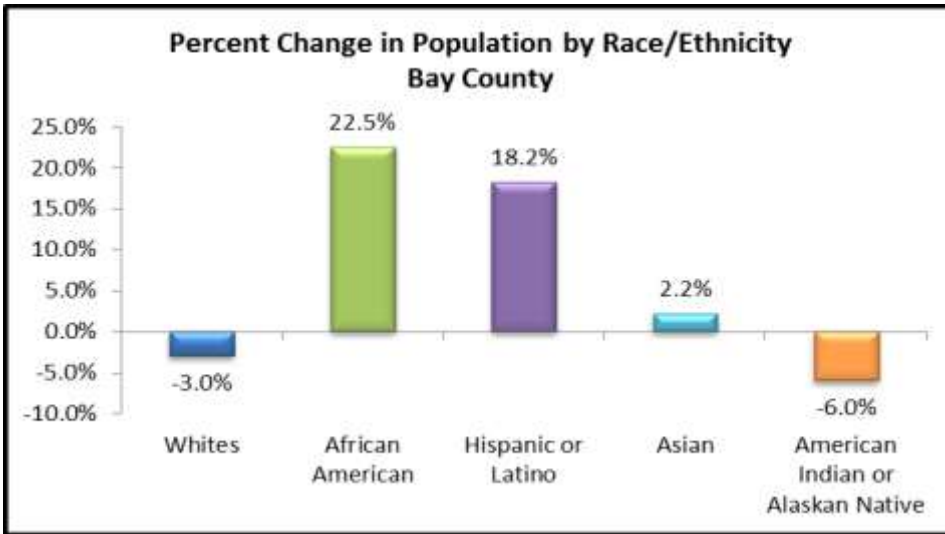


Source: U.S. Census Bureau, 2000 & American Communities Survey, 2010

Bay County has an aging population. The greatest percentage of increase occurred among the 55 to 74 year age group

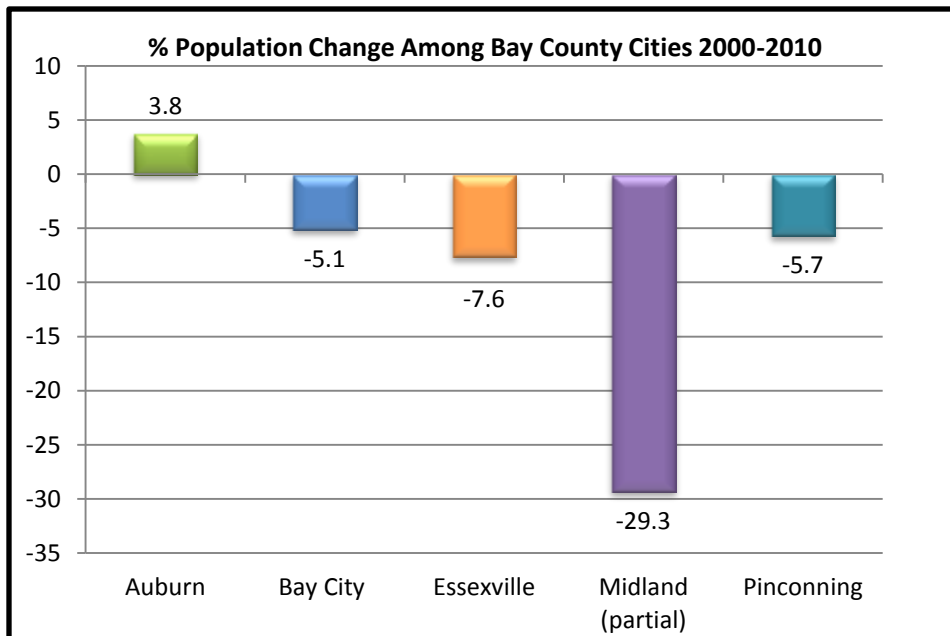
Population Trends in Bay County

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Significant increases in population were seen among the African American (23%) and Hispanic or Latino Population (18.2%).

Source: U.S. Census Bureau, 2000 & American Communities Survey, 2010



Source: U.S. Census Bureau, 2000 & American Communities Survey, 2010

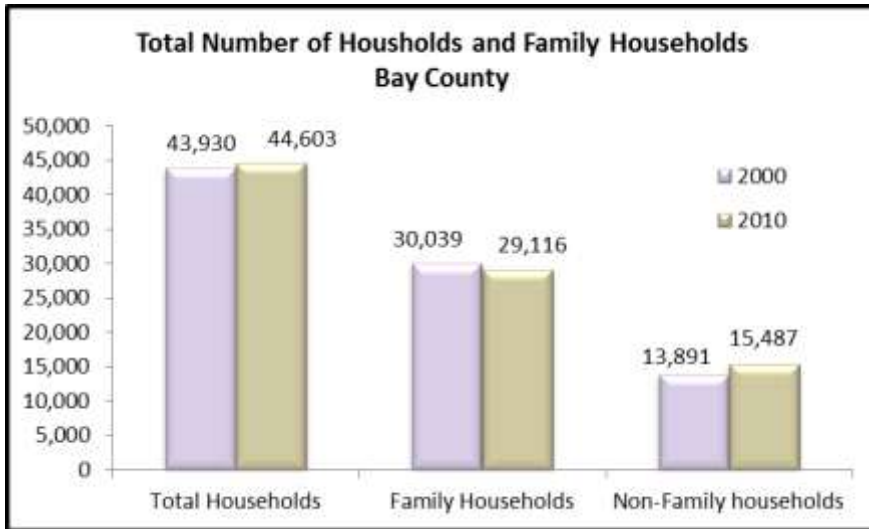
The greatest percent of population change occurred in Midland. Auburn was the only city to experience an increase in population from 2000-2010

Household and Family Characteristics in Bay County

2011/2012 Bay County Community Health Assessment



The decrease in population is reflective among families and households in Bay County.



Total households increased by nearly 2% from 2000 – 2010, while Family households decreased by 3.1%

Non-family households experienced a significant increase of 11.5%

Source: U.S. Census Bureau, 2000 & American Communities Survey, 2010

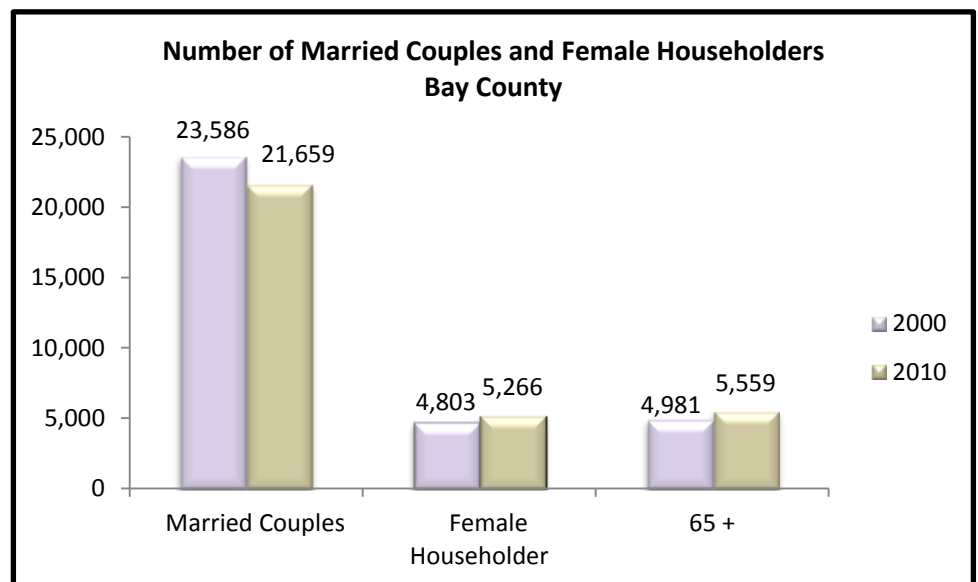
Family households consist of households that include at least one member of the household that is related to the householder by birth, marriage, or adoption.

Non-family households refer to households where people are living alone or the household does not have any members related to the householder

Married couple households decreased 8% from 2000-2010.

Households with female heads of house increased 9.6% in the last 10 years.

Householders aged 65 and older increased by 12%.



Source: U.S. Census Bureau, 2000 & American Communities Survey, 2010

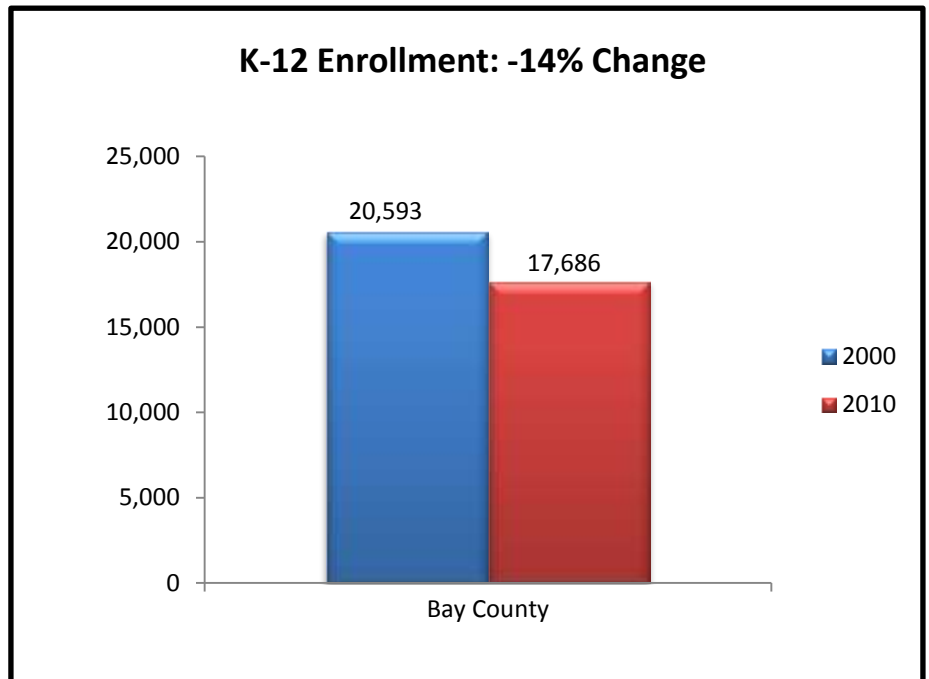
Educational Enrollment and Attainment

2011/2012 Bay County Community Health Assessment



The number of people enrolled in grades K-12 in Bay County decreased by 14% between 2000 and 2010.

While there was a decrease of approximately 50% of County residents receiving less than a ninth grade education, there was also a decrease in county residents graduating from high school.



Source: U.S. Census Bureau, 2000 & American Communities Survey, 2010

	Bay County 2000	Michigan 2000	Bay County 2010	Michigan 2010
Less than 9 th grade	6.1	4.7	3.4	3.5
High School Graduate	37	31.3	33.1	30.9
Some College	23.3	23.3	22.2	24.2
Associate Degree	8.0	7.0	12.0	8.4
Bachelor Degree	9.7	13.7	13.8	15.6
Graduate/Professional Degree	4.4	8.1	6.6	9.6

Source: U.S. Census Bureau, 2000 & American Communities Survey, 2010

On average, in 2000 and 2010, Bay County had a greater percentage of high school graduates and residents with an associate’s degree than the state of Michigan as a whole. From 2000 to 2010, Bay County experienced an increase in residents that received a bachelor’s or graduate/professional degree. However, Bay County had fewer residents with a bachelor’s degree or more than the state of Michigan.

Of those that did graduate high school, there was a significant increase in residents receiving an associate’s degree or higher.

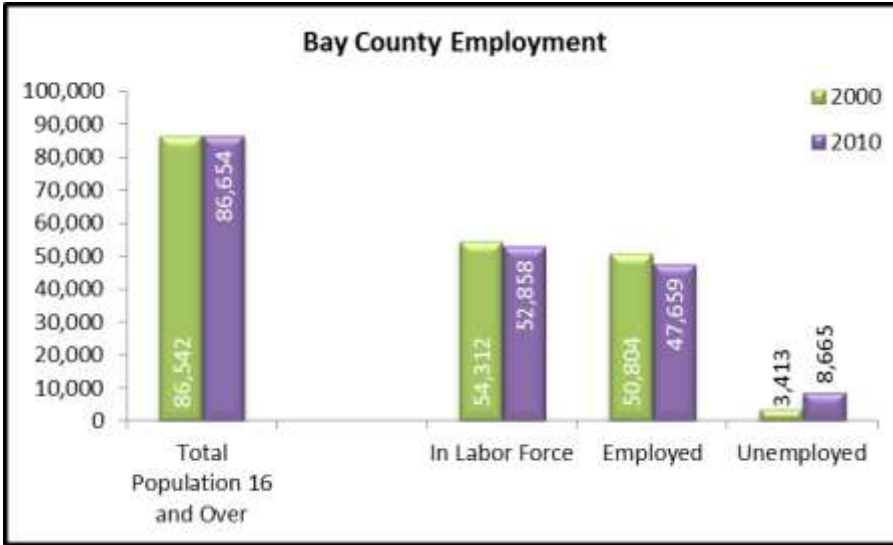
There is a correlation between education and receiving preventive health care.

Employment in Bay County

2011/2012 Bay County Community Health Assessment



The decrease in employment also speaks to the state of the economy.



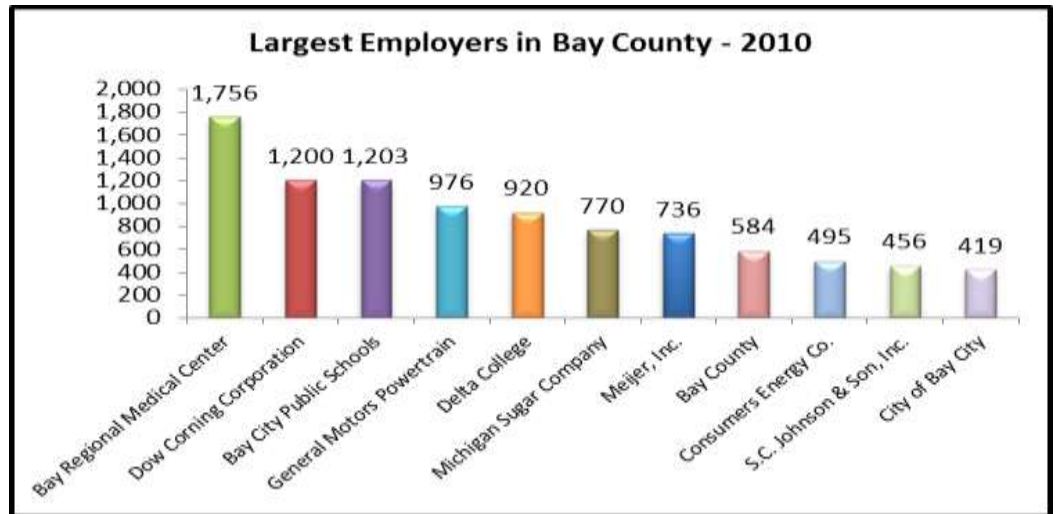
This graph shows the number of residents who are in the labor force, employed and unemployed.

In 2000, there were a total of 54,312 Bay County residents in the labor force.

In 2010, Bay County experienced a significant decrease in employment of approximately 4%.

Source: U.S. Census Bureau, 2000 & American Communities Survey, 2010

The graph above illustrates the largest employers in Bay County. According to the Bay Area Chamber of Commerce, the top three employers include McLaren Bay Region (formerly Bay Regional medical Center), Dow Corning Corporation, and the Bay City Public Schools; all employing over 1,000 individuals.



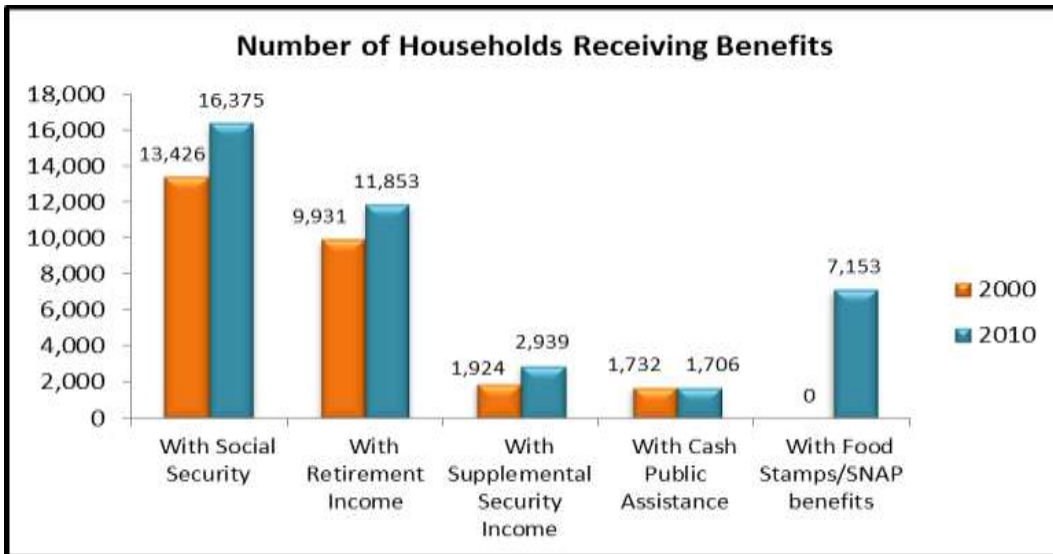
Source: U.S. Census Bureau, 2000 & American Communities Survey, 2010

"It's embarrassing, too. So you've been a proud working person and you're working hard and all of a sudden you're [unable to provide]."

-Father

Income in Bay County

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Source: U.S. Census Bureau, 2000 & American Communities Survey, 2010

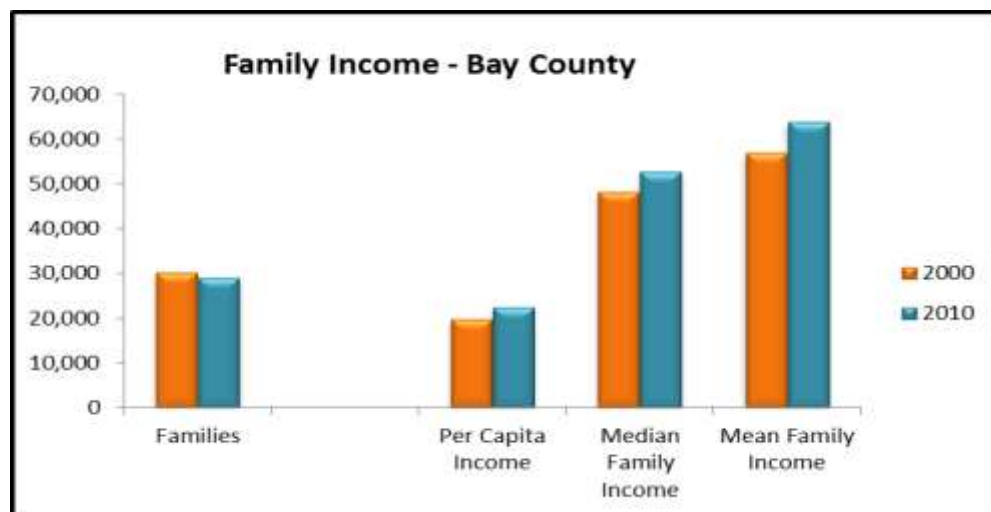
In 2000, there were about 44,026 households in Bay County and 61% of those households received some type of state assistance.

In 2010, the number of households remained relatively the same; however, the number of households that received some sort of state assistance increased by about 14%.

“Let’s say somebody needs some kind of assistance so instead of giving them all these food stamps to go and buy all this premade stuff maybe make it so that they can only buy a 10 pound bag of potatoes once a week. Give them recipes on how to do it. Maybe if it’s their first time coming through give them all the pots and pans that they need.”

-Mother

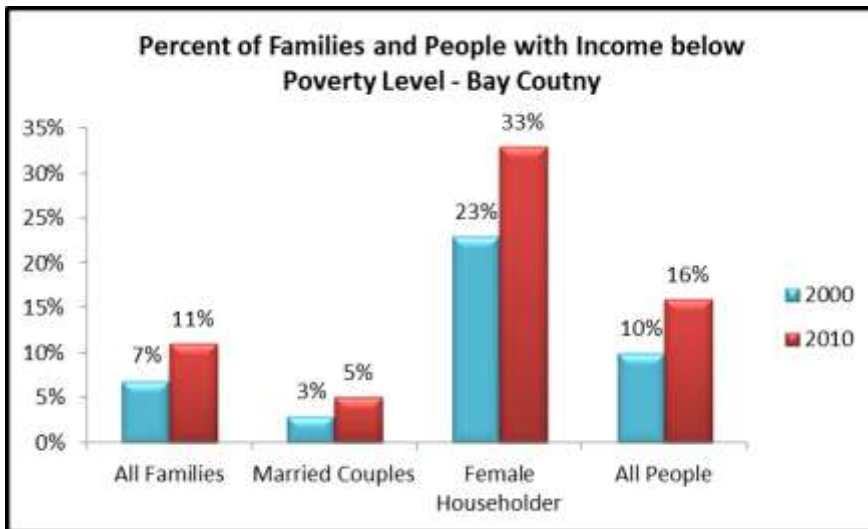
The graph to the right depicts the number of families residing in Bay County, as well as the per capita and mean incomes. Even with the declining population and number of families in Bay County, per capita income rose by 13.6% and mean income rose by 11.8%. One possible reason for the increased family income is that from 2006 to 2008 Michigan raised the minimum wage level from \$5.15 an hour to \$7.40 an hour. This resulted in an annual income increase for full-time employees of \$4,680.



Source: U.S. Census Bureau, 2000 & American Communities Survey, 2010

Poverty in Bay County

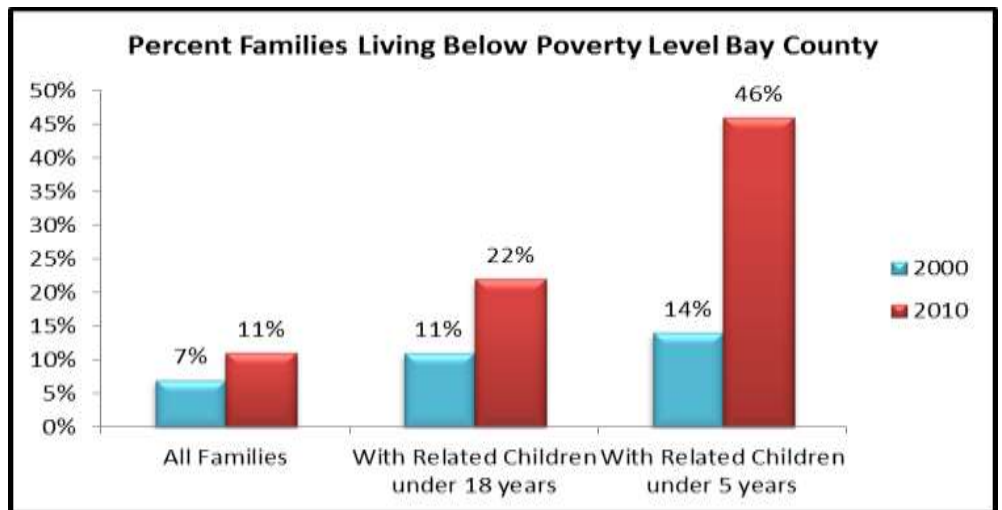
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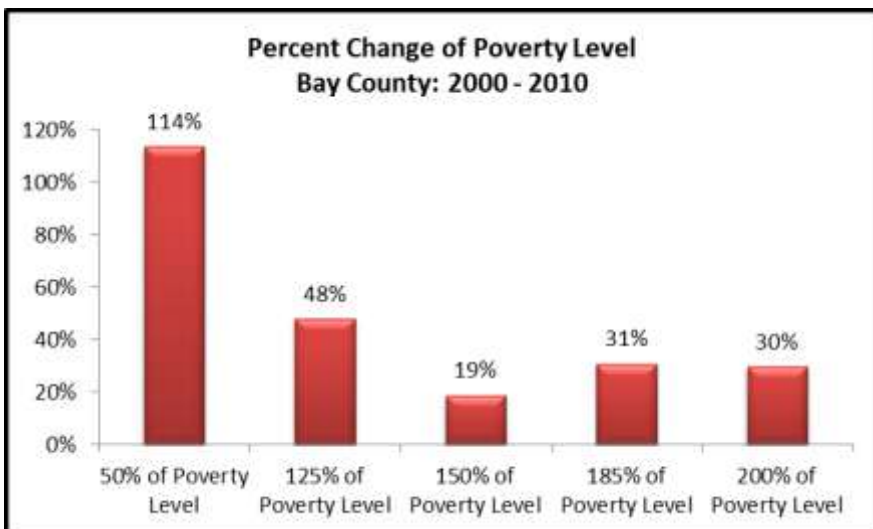
In 2010, 11% of all families in Bay County were living with income below the poverty level.

Source: U.S. Census Bureau, 2000 & American Communities Survey, 2010

In 2010, Bay County residents with income at 50% of the poverty level increased by 114%.



Source: U.S. Census Bureau, 2000 & American Communities Survey, 2010



Source: U.S. Census Bureau, 2000 & American Communities Survey, 2010

While there were increases among all poverty levels, perhaps the most significant increase is among those living at 50% of the poverty level.

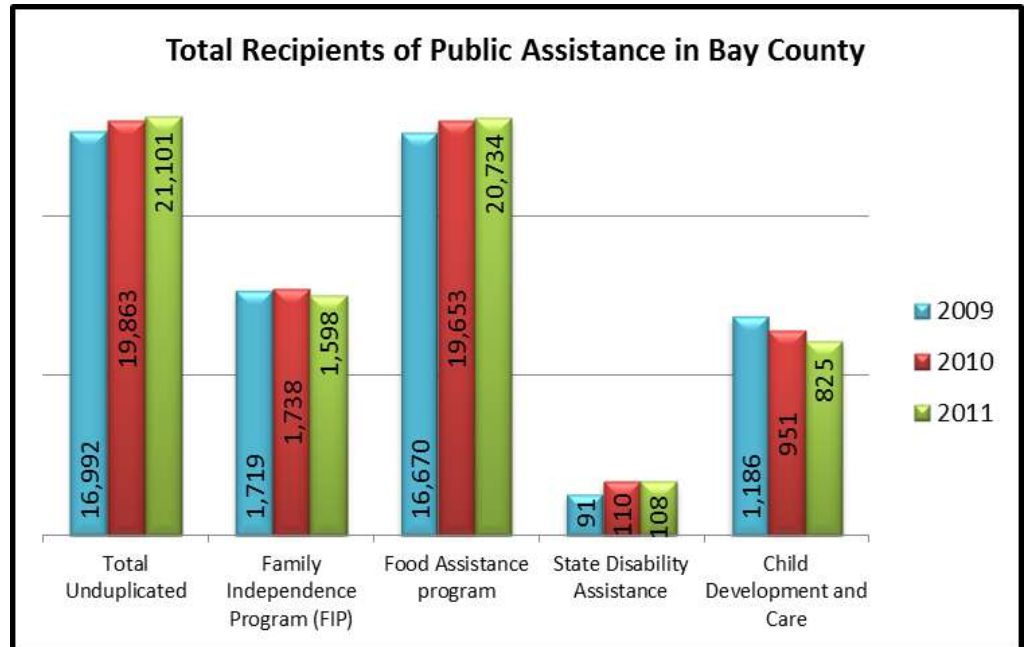
This is evident in the current economic decline in Bay County and can also be attributed to the declining population.

Poverty in Bay County

2011/2012 Bay County Community Health Assessment

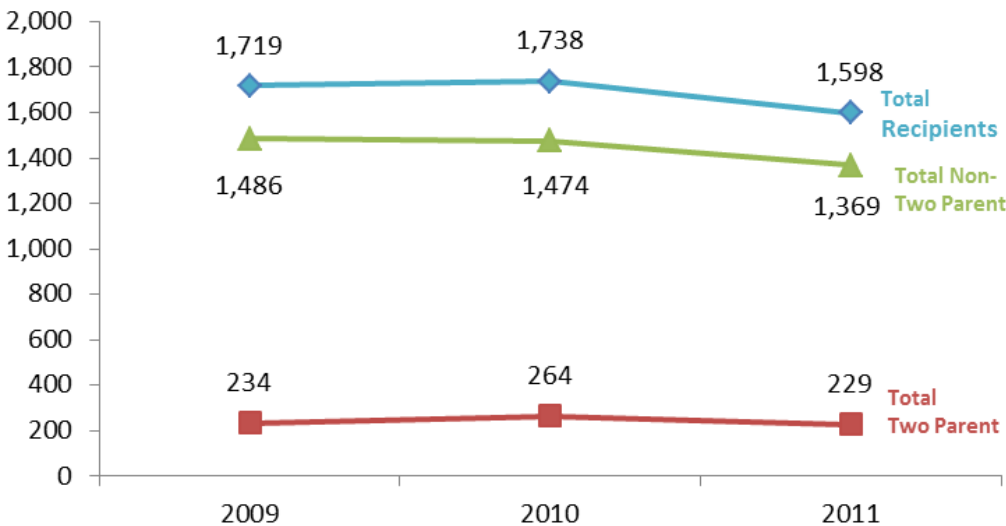


In Bay County, between 2009 and 2011, the Food Assistance Program increased 24%



Source: U.S. Census Bureau, 2000 & American Communities Survey, 2010

Total Recipient Trends for Family Independence Program



Source: U.S. Census Bureau, 2000 & American Communities Survey, 2010

The Family Independence Program (FIP) demonstrates a decrease in recipients from 2009 to 2011. There were more recipients from Non-Two Parent families than Two Parent families.

Bay County's enrollment decreased 7% from 1,719 in 2009 to 1,598 recipients in 2011.

Housing in Bay County

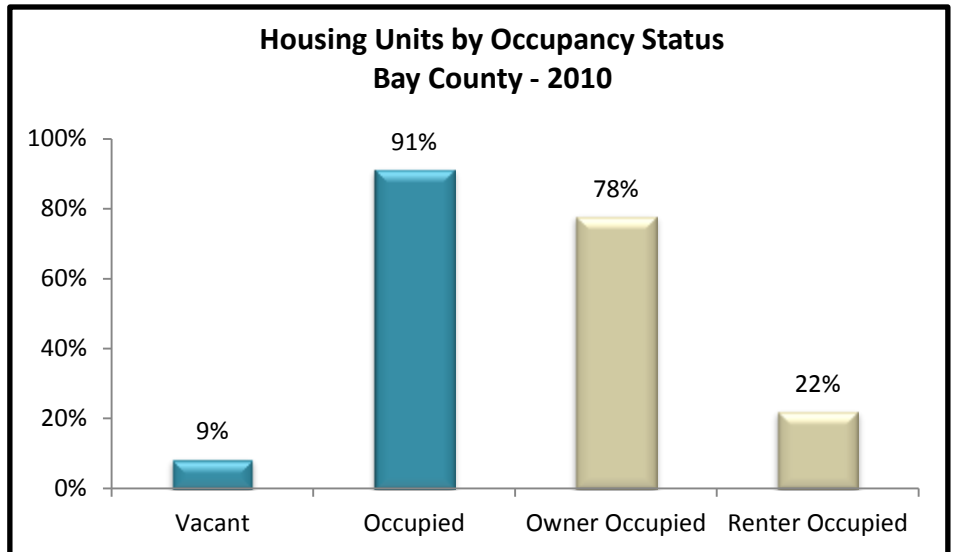
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In Bay County, 40.7% of the population pays 25% or more of their income on their mortgage.

22.1% of housing units are renter occupied

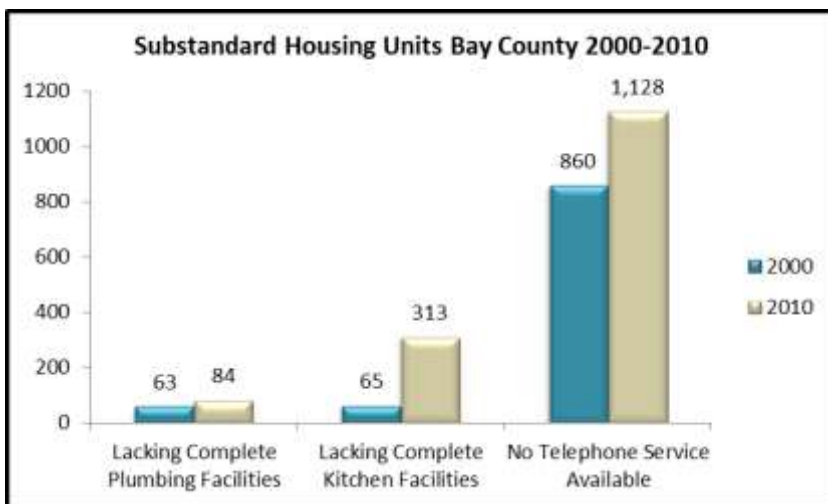
Of those 22.1%, 62.3% pay more than one fourth of their income on rent.



Source: American Communities Survey, 2010

Income Paid on mortgage	Bay County	Income Paid on Rent	Bay County
Less than 20%	44.7%	Less than 15%	19%
20-24.9%	14.6%	15-19.9%	10.9%
25-29.9%	8.2%	20-24.9%	7.9%
30-34.9%	6.0%	25-29.9%	12.3%
35% or more	26.5%	30-34.9%	8.1%
		35% or more	41.9%

Source: American Communities Survey, 2010



Source: U.S. Census Bureau, 2000 & American Communities Survey, 2010

The amount of substandard housing units in Bay County has increased from 2000 to 2010. The amount of housing units that are lacking complete plumbing facilities increased 33.3%, while housing units that have no telephone service available increased 31.2%.

Housing units lacking complete kitchen facilities increased a staggering 381.5%.

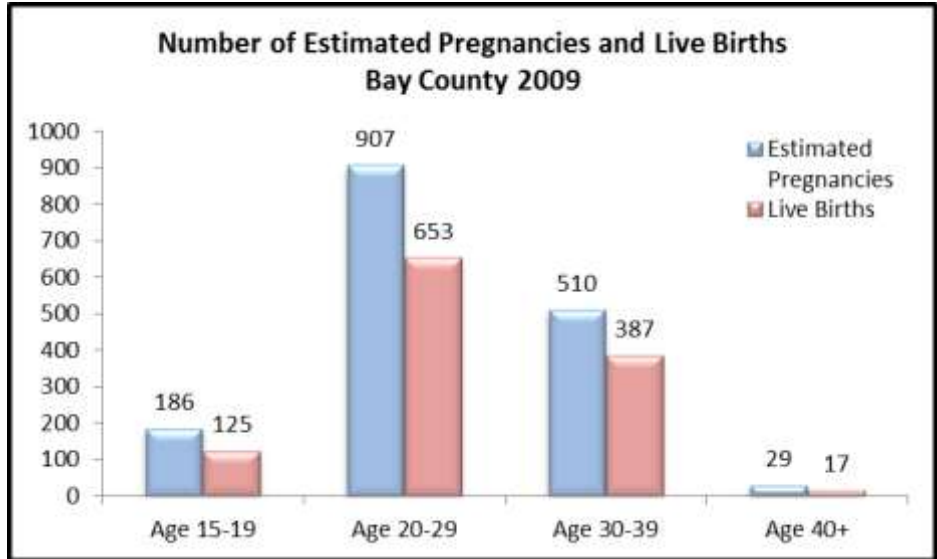
Maternal and Child Health in Bay County

2011/2012 Bay County Community Health Assessment

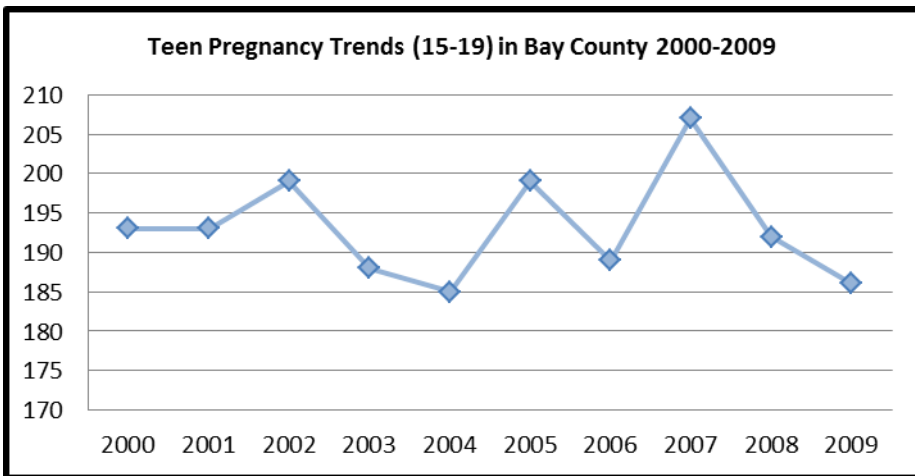


Bay County saw an 8% decrease in the total number of live births from 1,287 in 2000 to 1,184 in 2009.

Females between the ages of 20 and 29 experience the greatest number of pregnancies and live births.



Source: Michigan Department of Community Health; Vital Statistics, 2009



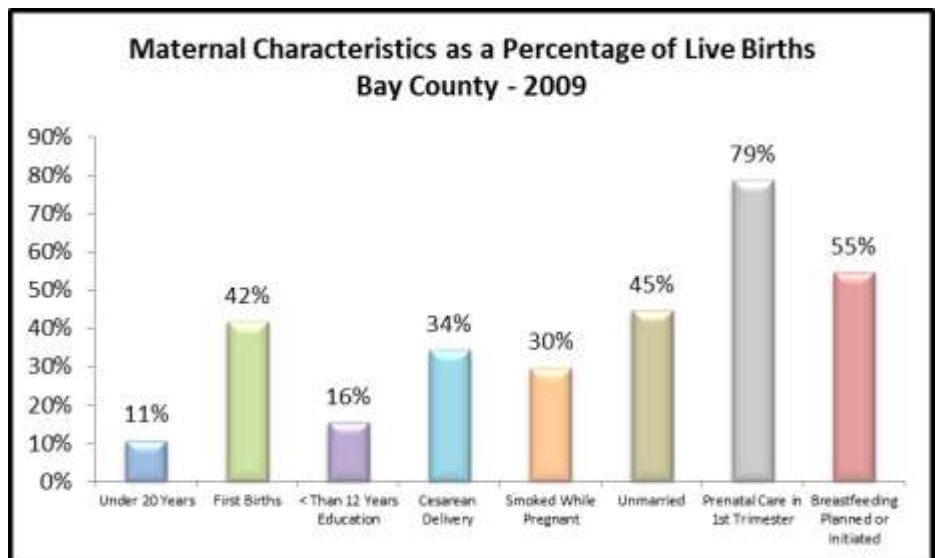
Source: Michigan Department of Community Health; Vital Statistics, 2000 - 2009

Teen Pregnancies have decreased by 3.6% over the last 9 years.

16% of women who had a child have less than 12 years of education.

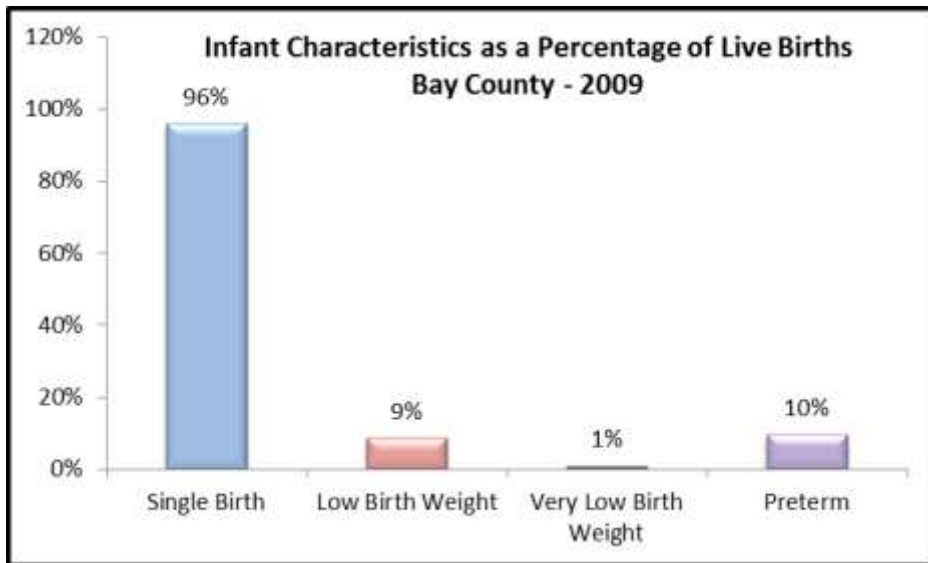
29.7% of mothers reported smoking while pregnant

Source: Michigan Department of Community Health; Vital Statistics, 2009



Maternal and Child Health in Bay County

2011/2012 Bay County Community Health Assessment



The majority of births in Bay County are single births.

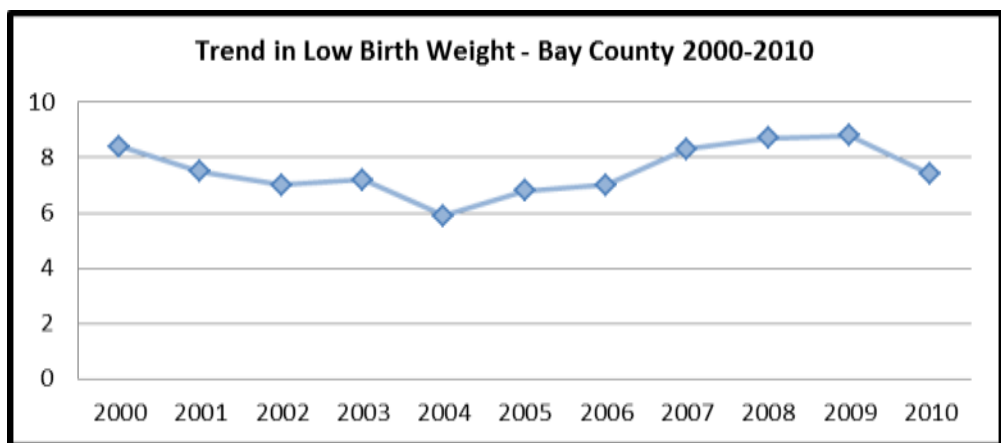
9% of live births in Bay County have a low birth weight.

Only 10% of babies born in Bay County in 2009 were preterm.

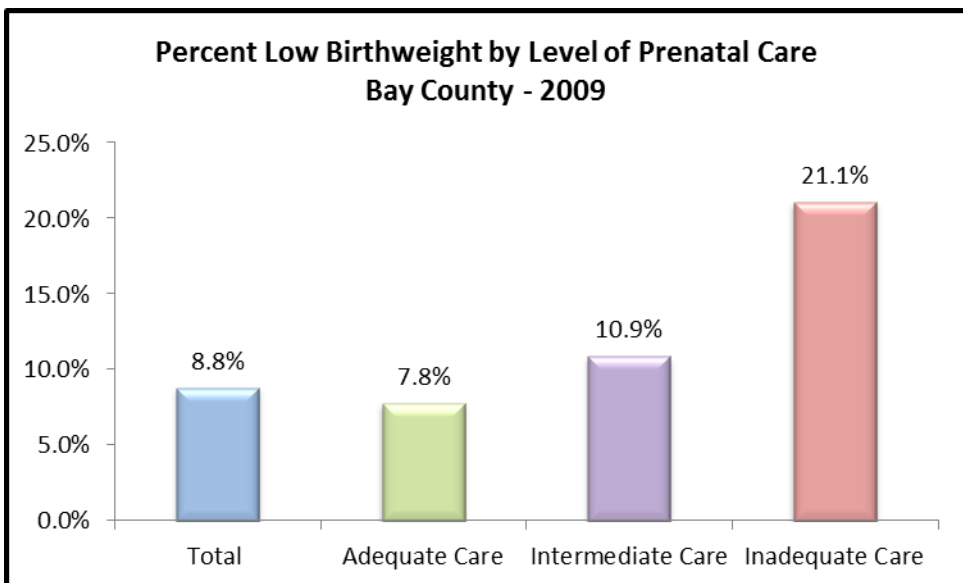
Source: Michigan Department of Community Health; Vital Statistics, 2009

As shown, percentages for low birth weight in Bay County have remained relatively static with relatively little change.

Bay County saw a decline of 7.4% in low birth weight from 2009 to 2010



Source: Michigan Department of Community Health; Vital Statistics, 2009



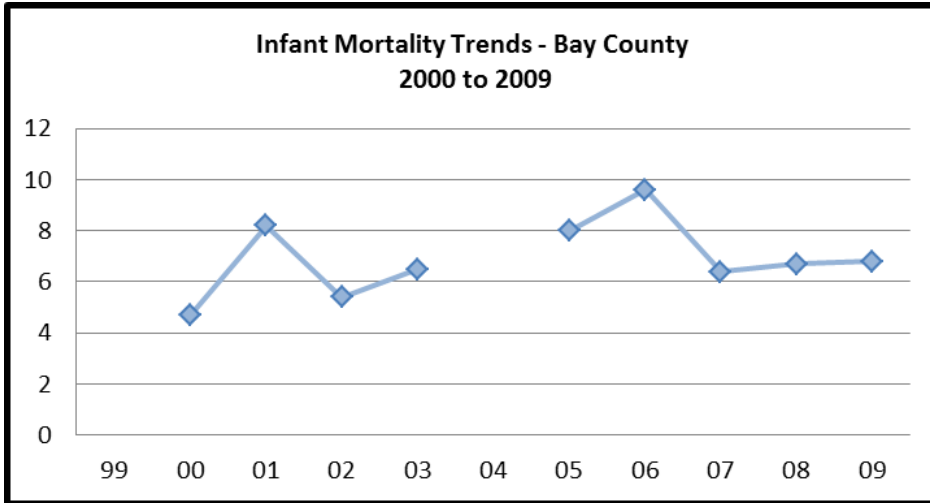
21.1% of low birth weight babies received inadequate prenatal care.

The chance of a mother giving birth to a low birth weight baby dramatically decreases with adequate prenatal care.

Source: Michigan Department of Community Health; Vital Statistics, 2009

Maternal and Child Health in Bay County

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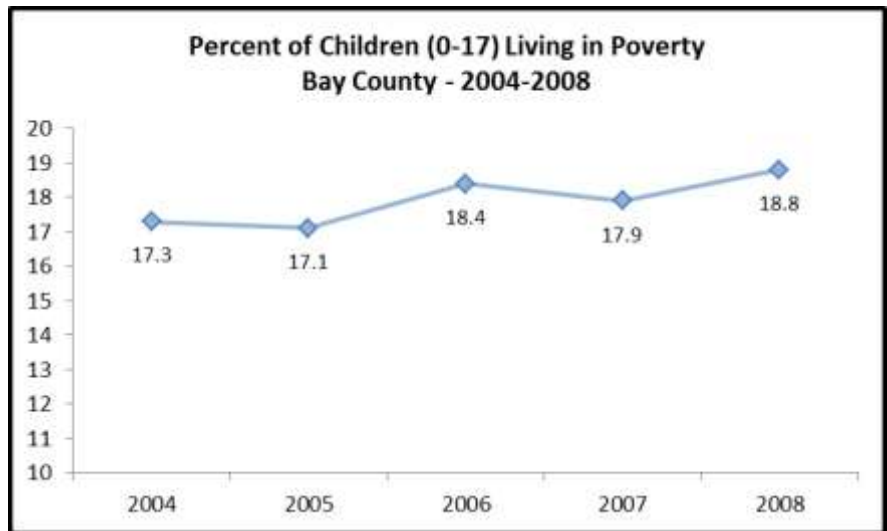


In 2000, Bay County had an infant mortality rate of 4.7

In 2009, the infant mortality rate for Bay County was 6.8.

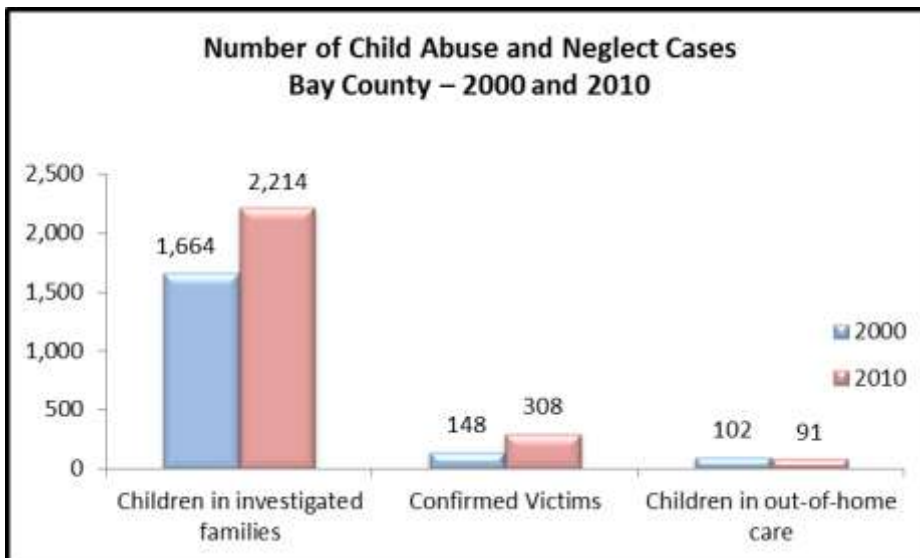
Source: Michigan Department of Community Health; Vital Statistics, 2009

Over the last 3 years, the infant mortality rate for Bay County has remained relatively static.



Source: Michigan League for Human Services, Kids County Data, 2011

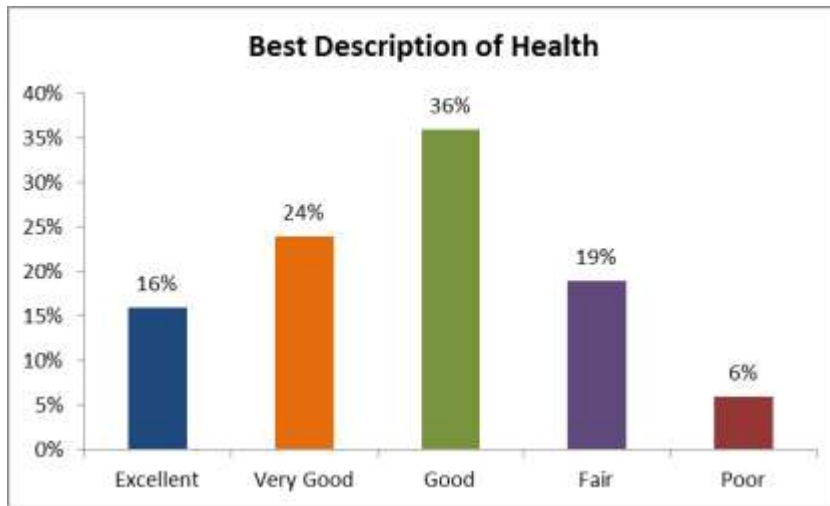
The number of children confirmed as victims of abuse or neglect increased by 108% over the last 10 years.



Source: Michigan League for Human Services, Kids County Data, 2011

General Health in Bay County

2011/2012 Bay County Community Health Assessment



When asked how they would describe their overall health,

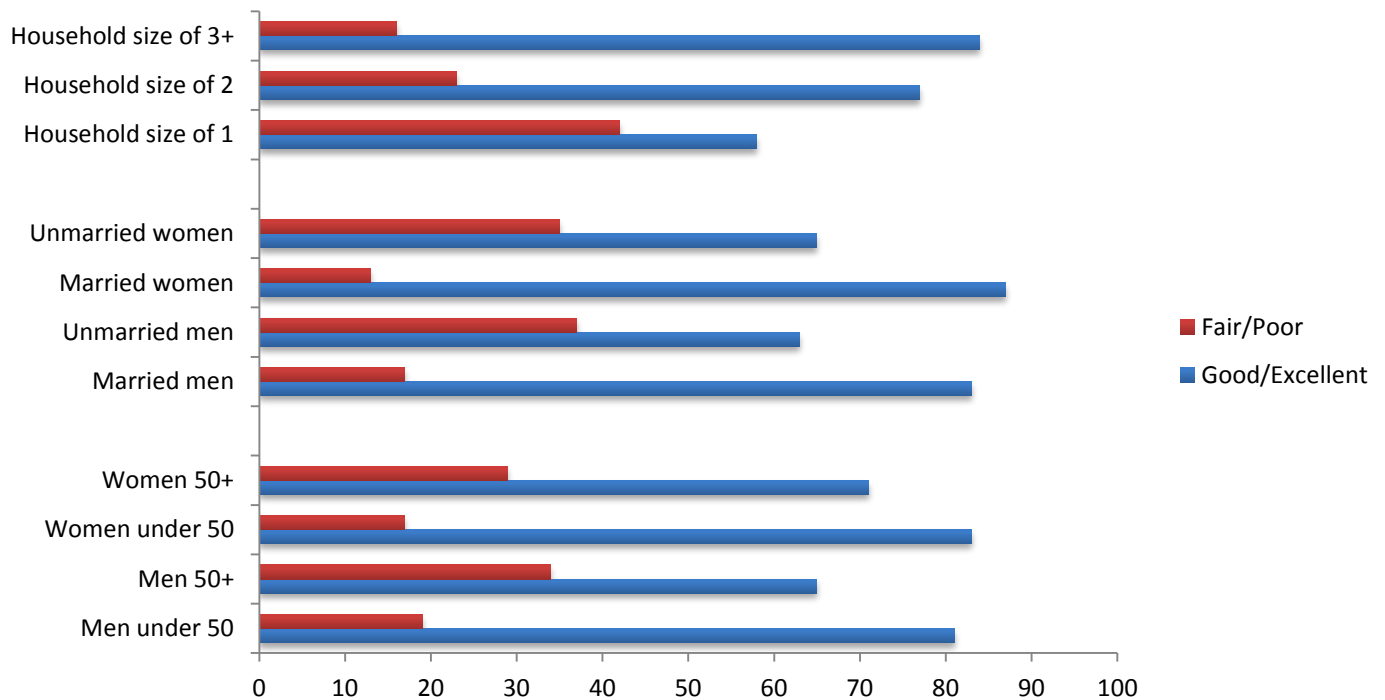
1 in 4 residents described their health as fair or poor.

Six in 10 say it is good or very good.

16% describe their health as excellent.

Source: Bay County Phone Survey, 2012

Description of Health vs. HH Size, Marital Status and Age

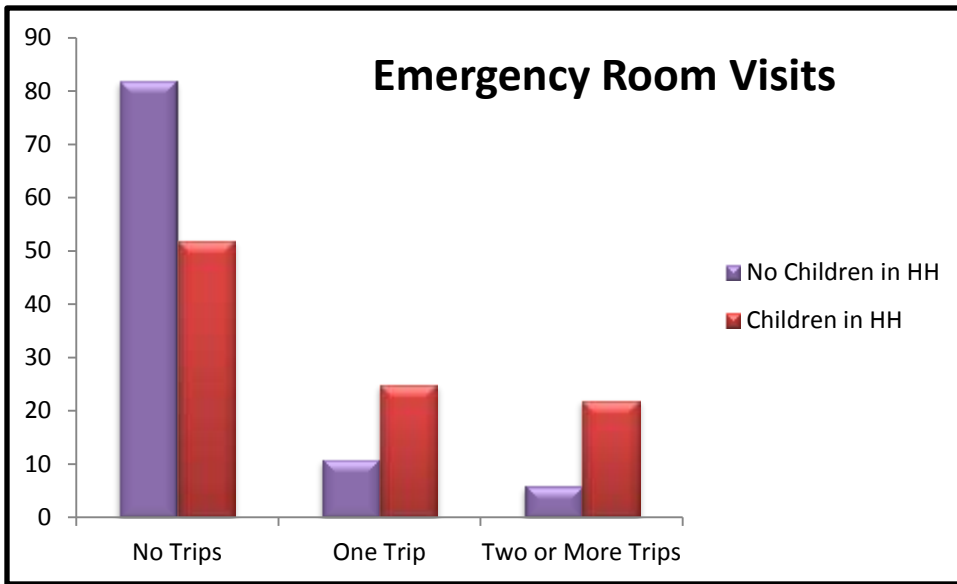


Source: Bay County Phone Survey, 2012

Age and marital status correlate strongly with health status. Among those who live alone, 42% say their health is fair or poor, compared to just 23% in a household of two

General Health in Bay County

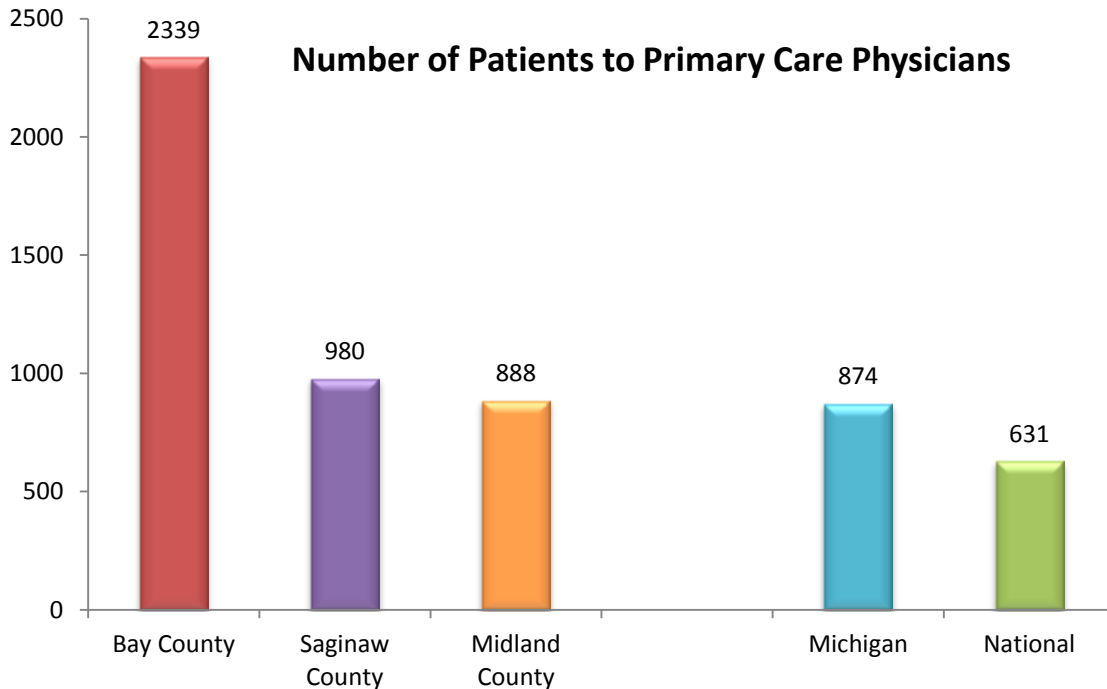
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Among residents with children, nearly half have been to the Emergency Room within the past 6 months, including 22% who have been twice or more.

Source: Bay County Phone Survey, 2012

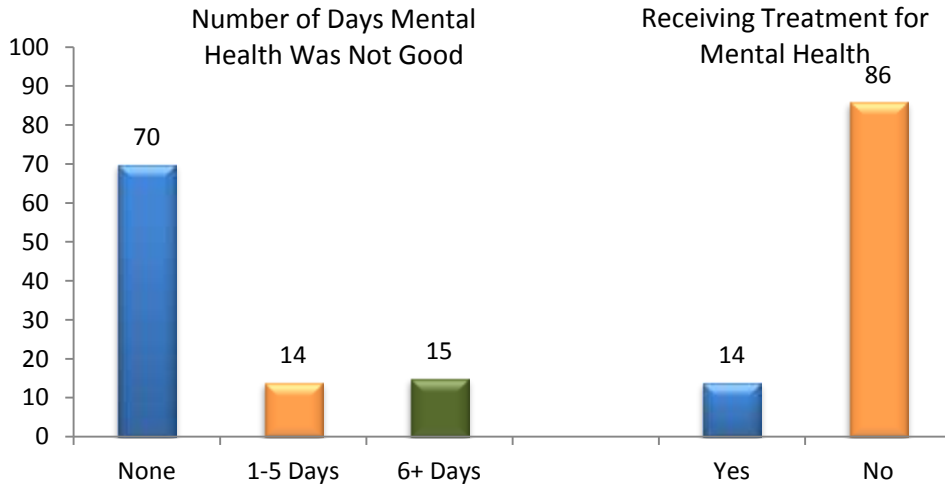
Bay County has more than triple the amount of patients to Primary Care Physicians than the national average



Source: Bay County Phone Survey, 2012

Mental Health in Bay County

2011/2012 Bay County Community Health Assessment

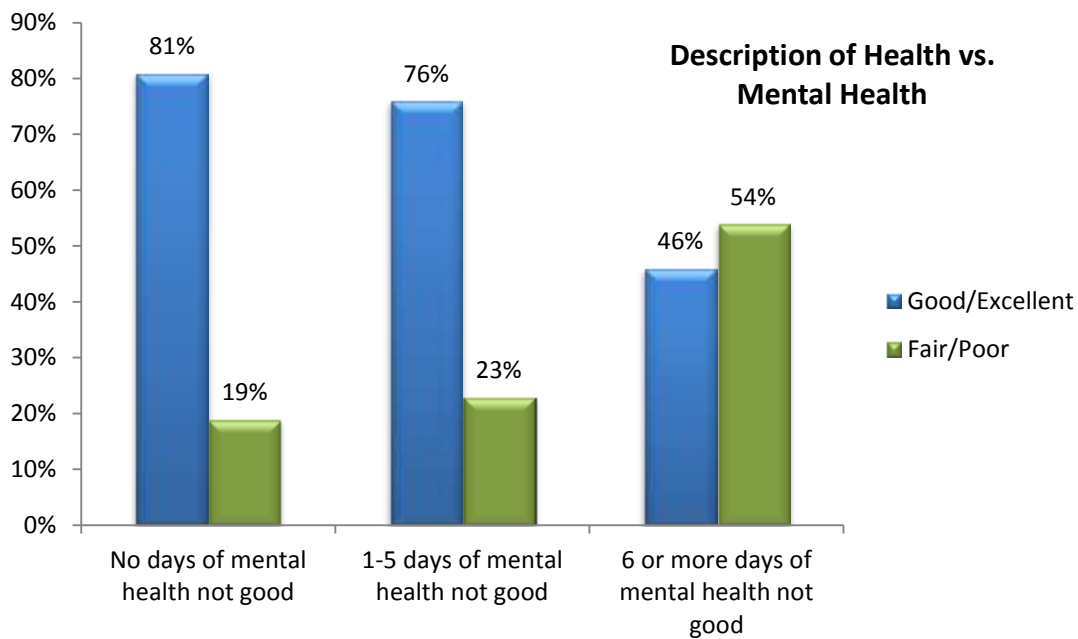


29% of Bay County adults report their mental health was not good on 6 or more days during the last 30 days

Yet only 14% are receiving treatment

Source: Bay County Phone Survey, 2012

Among those who say they have had 6 or more days in the last 30 with mental health that is not good, 46% still rate their overall health as good or excellent



Source: Bay County Phone Survey, 2012

Mental Health in Bay County

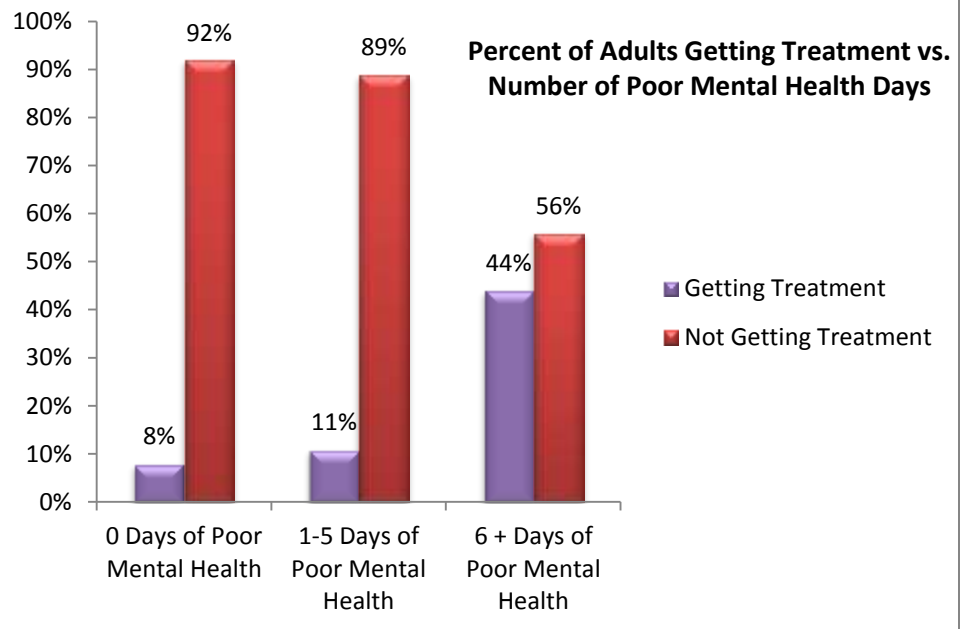
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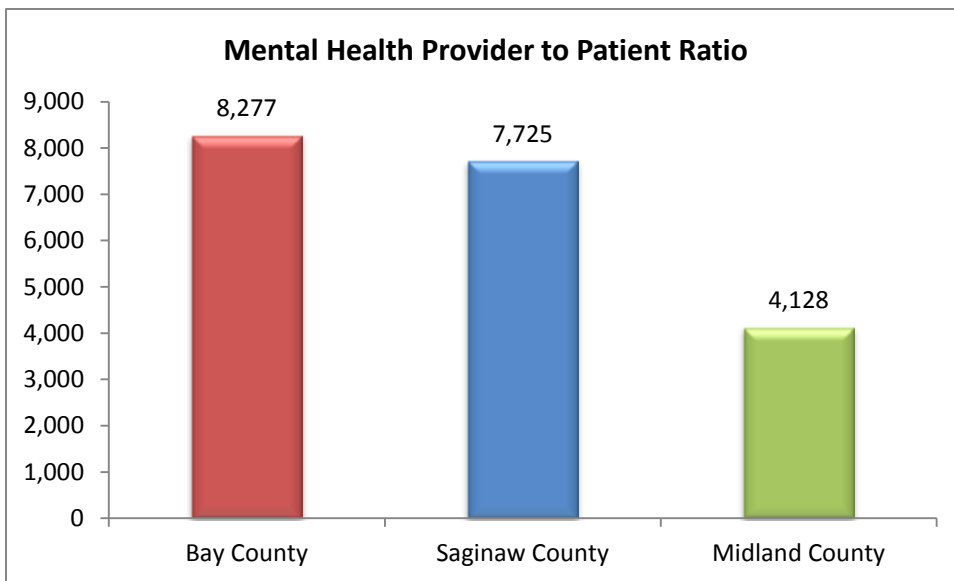
Among residents who have had 6 or more days with mental health that is not good, 44% say they are receiving treatment.

"From everyone I have talked to, this area is lacking a severe amount of psychologists, psychiatrists."

-Mother



Source: Bay County Phone Survey, 2012



Source: Bay County Phone Survey, 2012

Bay County has 8,277 mental health providers for every one patient

This is substantially higher than Saginaw and Midland Counties

"They need more communication between the two. My wife's in adult foster care and that's one of her biggest complaints is that the psychiatrist doles out these meds and then the primary care physician deals out these meds and they're not talking to each other."

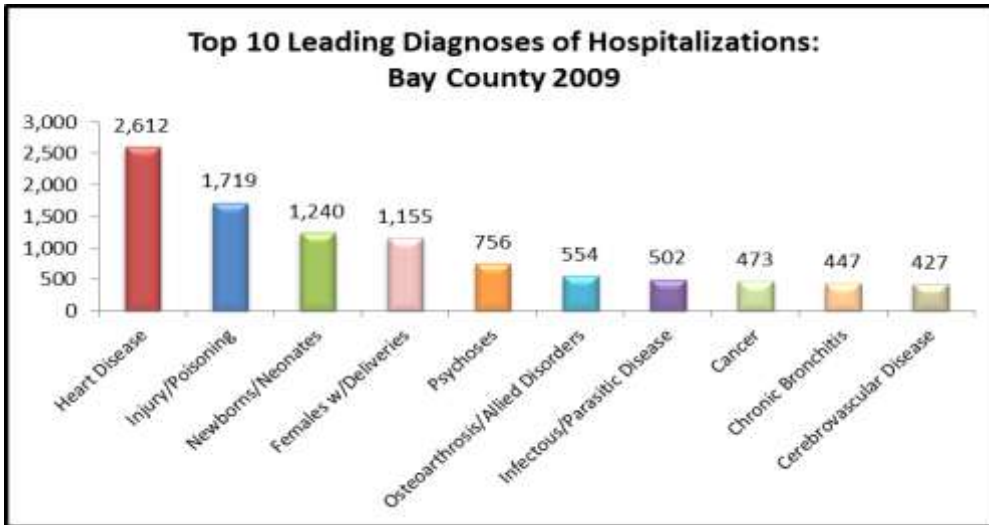
-Father

Morbidity and Mortality

2011/2012 Community Health Assessment

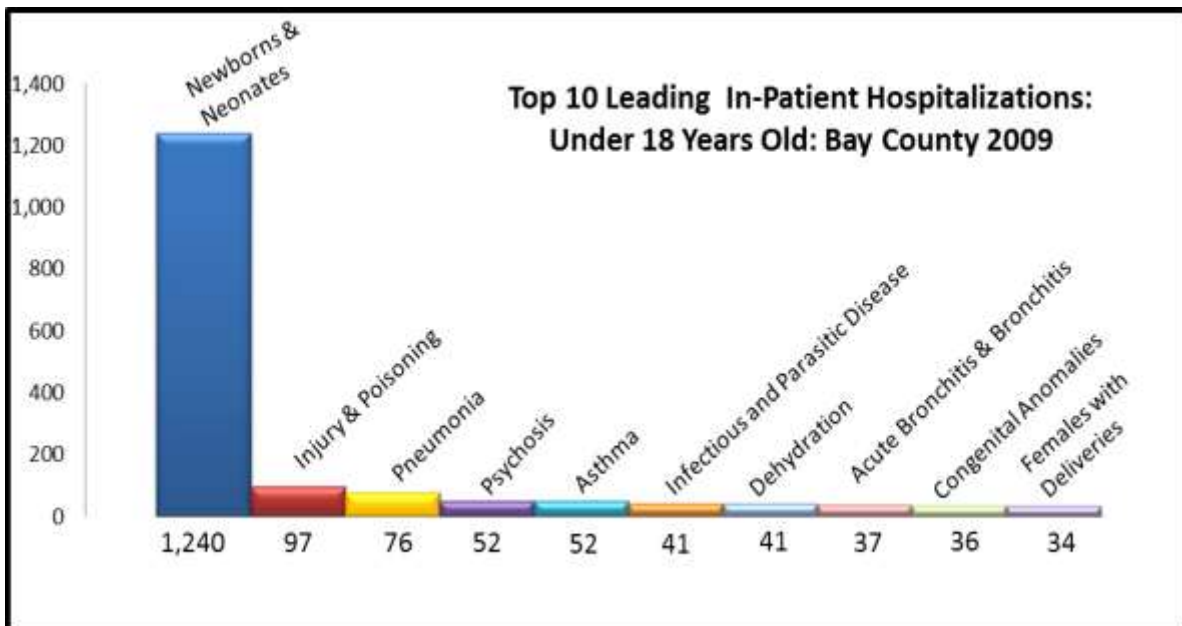


In 2009, there were a total of 17,986 hospitalizations in Bay County.



Overall, heart disease accounts for the majority (17%) of hospitalization diagnoses followed by injuries and poisonings.

Source: Michigan Department of Community Health; Vital Statistics, 2009



Source: Michigan Department of Community Health; Vital Statistics, 2009

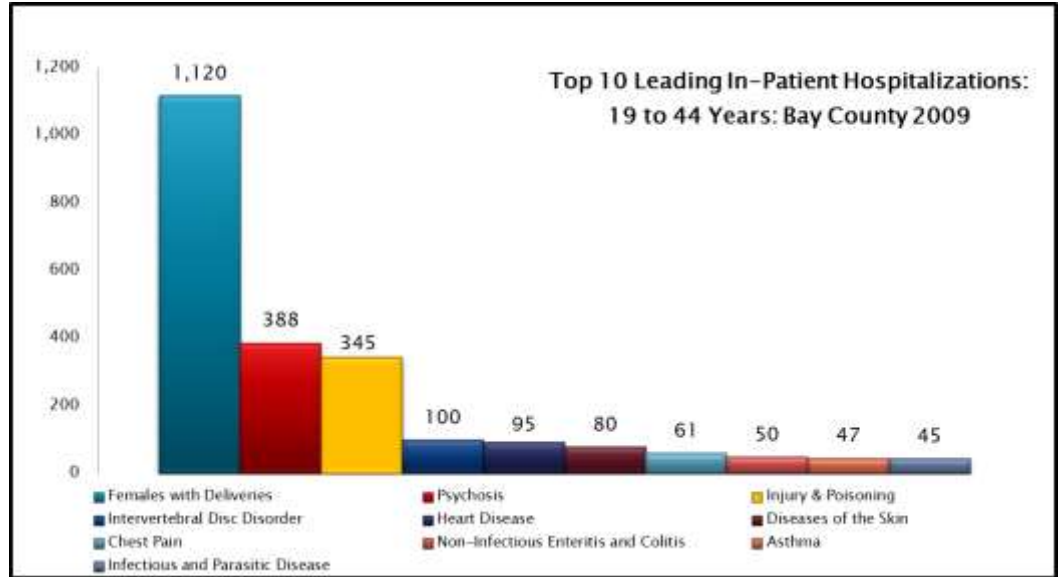
Injury and poisoning account for 5% of all hospitalizations among individuals under 18 years.

Morbidity and Mortality

2011/2012 Bay County Community Health Assessment

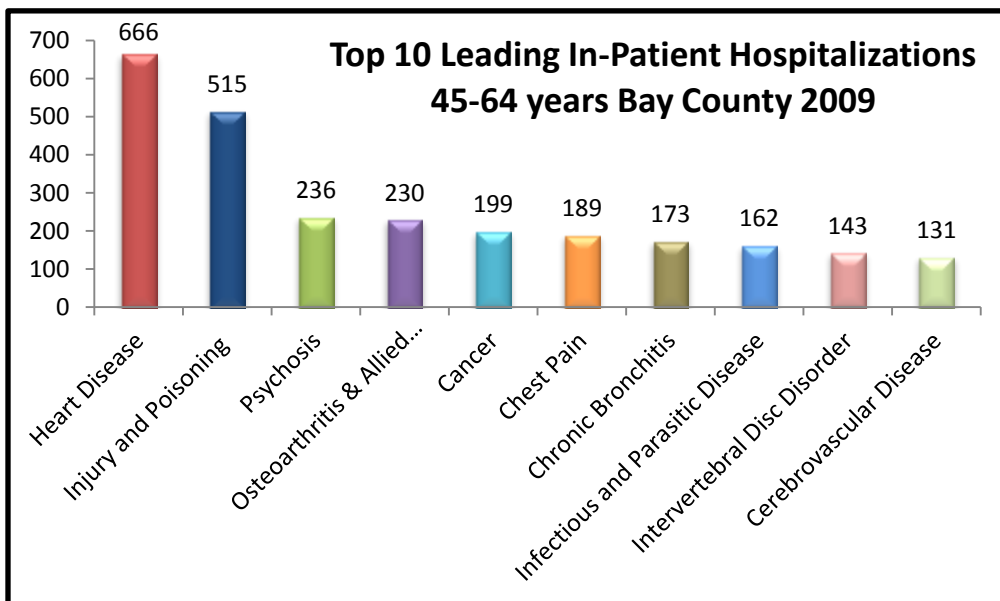


For individuals 19-44 years, there were a total of 3,577 hospitalizations.



Source: Michigan Department of Community Health; Vital Statistics, 2009

10% of all hospitalizations among 19-44 year olds were due to psychosis, followed closely by injuries & poisoning



Source: Michigan Department of Community Health; Vital Statistics, 2009

For individuals 45-64 years, there were a total of 4,907 hospitalizations.

Heart disease accounts for the majority (14%) of hospitalizations among 45-65 year olds.

Cancer = 4%

Chronic Bronchitis = 3.5%

Morbidity and Mortality

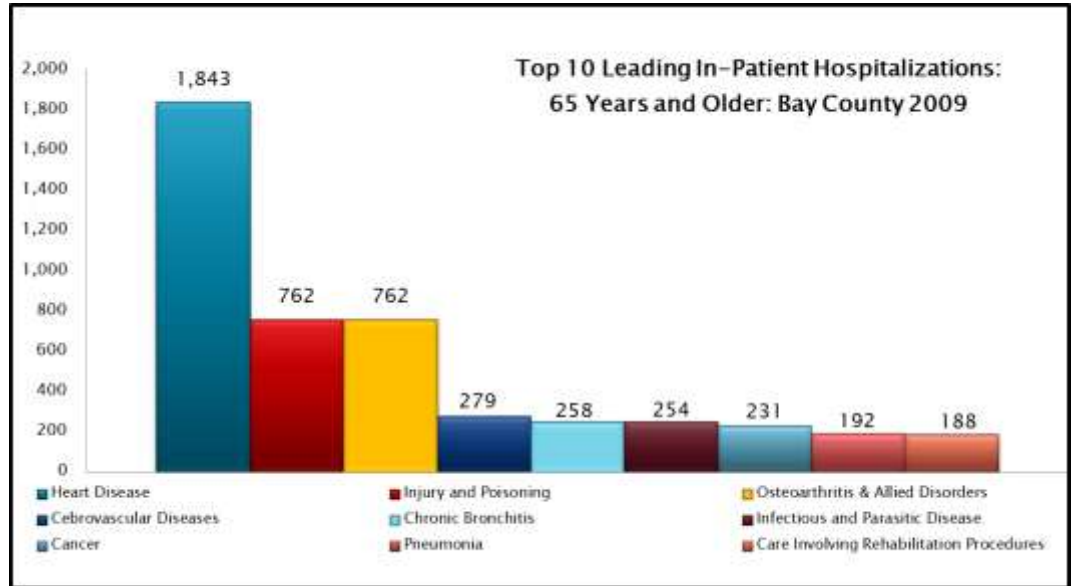
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For individuals 65 years and older, there were a total of 7,432 hospitalizations.

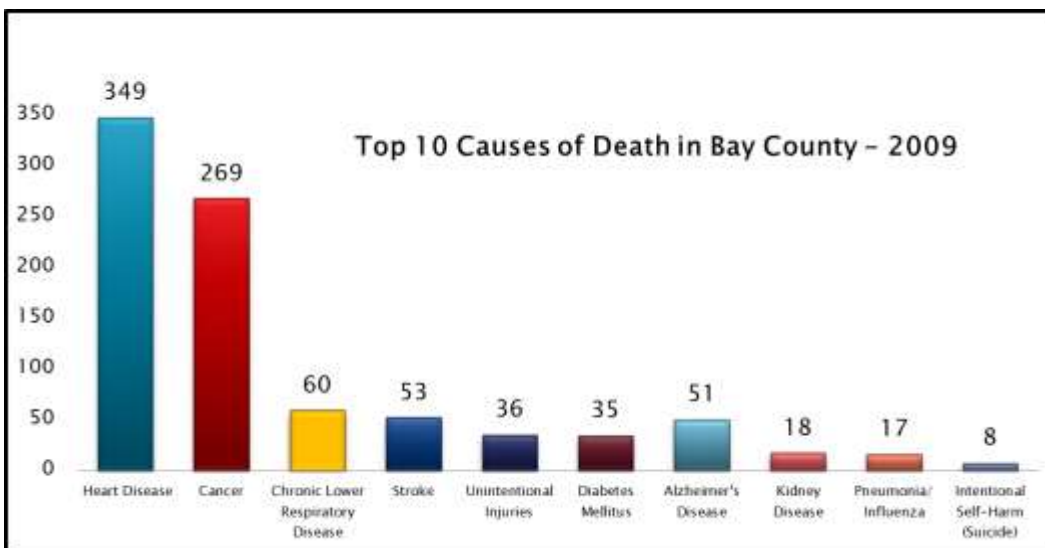
Heart disease accounts for the majority (24%) of hospitalizations among 65 years and older.

Cancer = 3%
Chronic Bronchitis = 3%



Source: Michigan Department of Community Health; Vital Statistics, 2009

"I spent a lot of time with the hospital lately and um, my father recently passed away. He had congestive heart failure so I spent a lot of time in the coronary care unit at Bay Regional and they were fantastic, they were exceptional. I would give them a 10."
-Father



Source: Michigan Department of Community Health; Vital Statistics, 2009

Heart disease causes more hospitalizations and deaths in Bay County than any other disease.

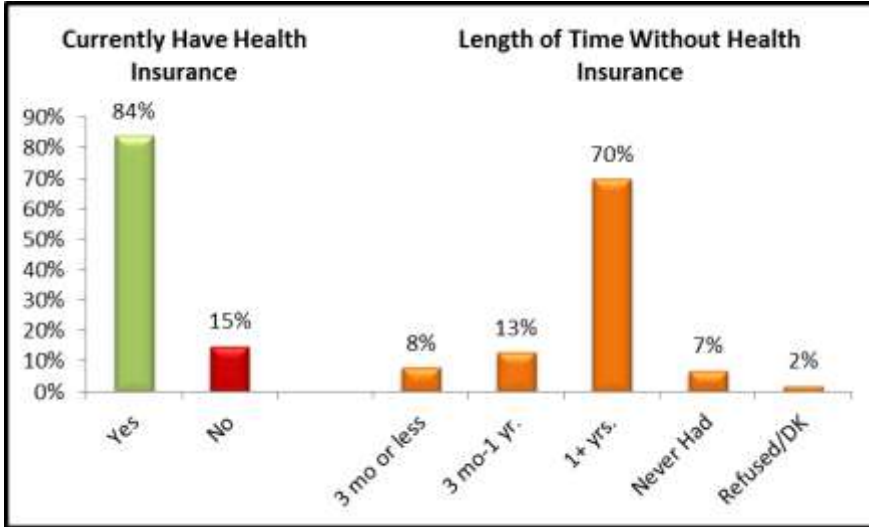
Cancer and Chronic Bronchitis do not contribute significantly to the percent of hospitalizations; however, they are among the top 3 causes of death.

Health Insurance Coverage in Bay County

2011/2012 Bay County Community Health Assessment



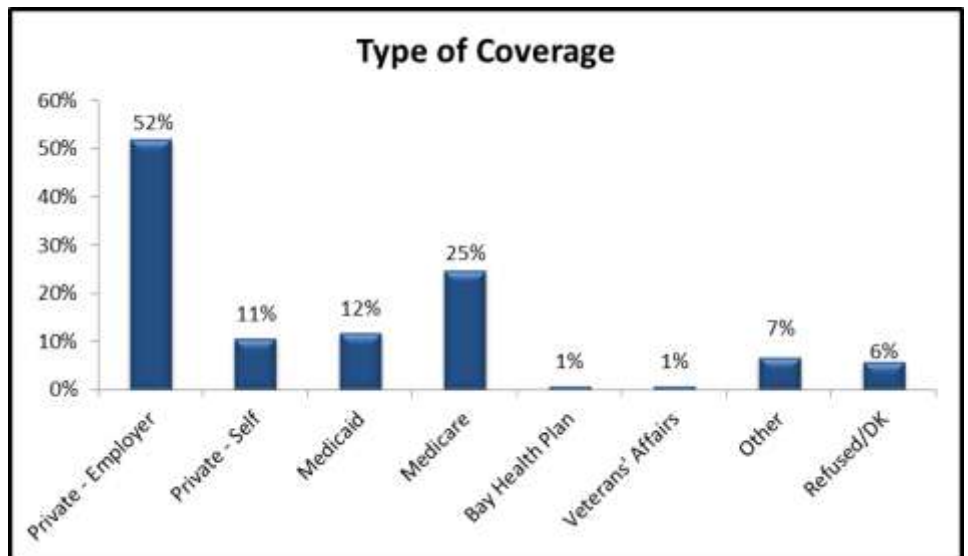
15% of Bay County adults surveyed DO NOT have health insurance.



7 in 10 surveyed have been without health insurance for one or more years.

Source: Bay County Phone Survey, 2012

1 in 4 receives their insurance from Medicare.



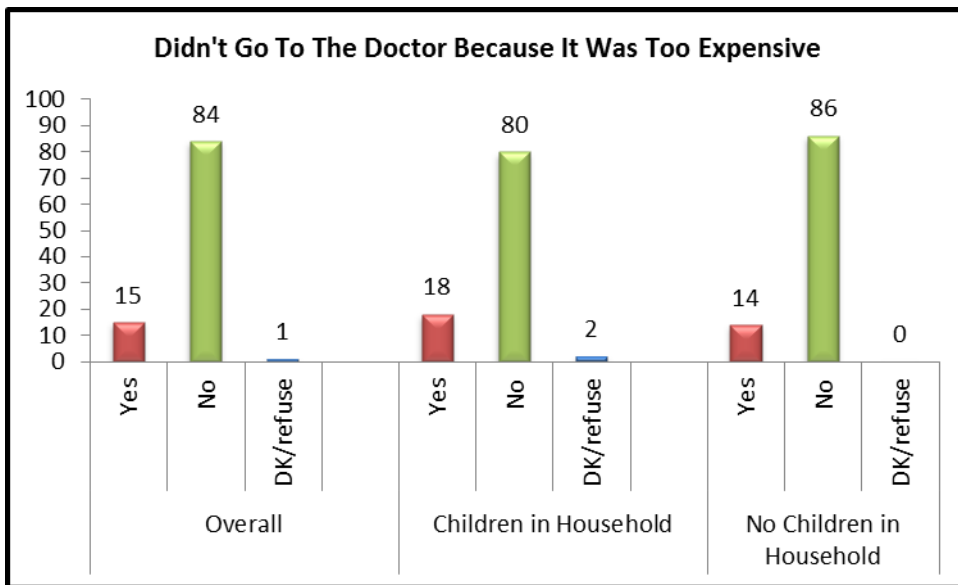
Source: Bay County Phone Survey, 2012

More than half of Bay County adults surveyed get their health insurance from their employer or their spouse's employer.

"I'm one of them people that fall right in the crack. I don't qualify for MICHild, I don't qualify for Medicaid and I don't have insurance."
 -Woman

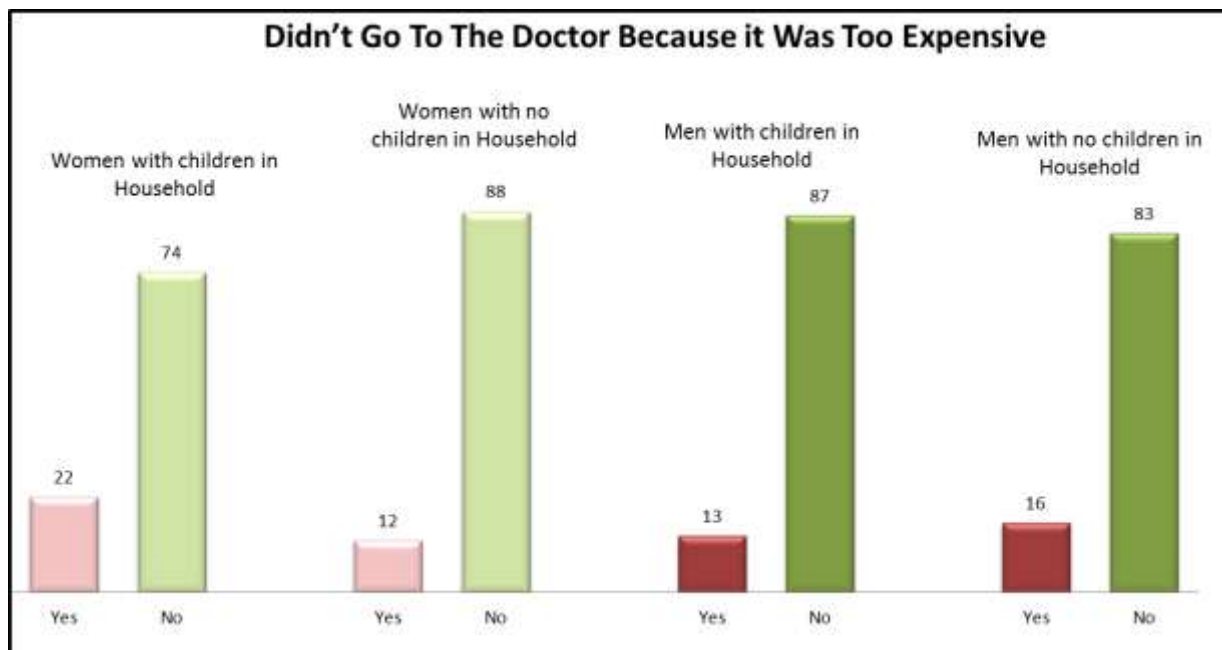
Health Insurance Coverage in Bay County

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Source: Bay County Phone Survey, 2012

Overall, 15% of residents report that there has been a time in the past year that they did not see a doctor



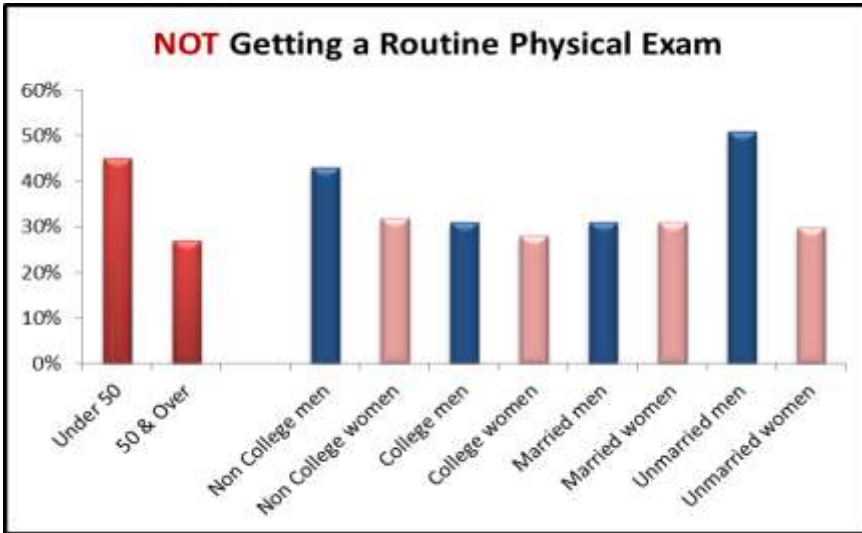
Source: Bay County Phone Survey, 2012

More than 1 in 5 (22%) women with children say there has been a time within the past 12 months that they did not go to a doctor because it was too expensive.

Health Behaviors in Bay County

Preventive Care - Adults

2011/2012 Bay County Community Health Assessment



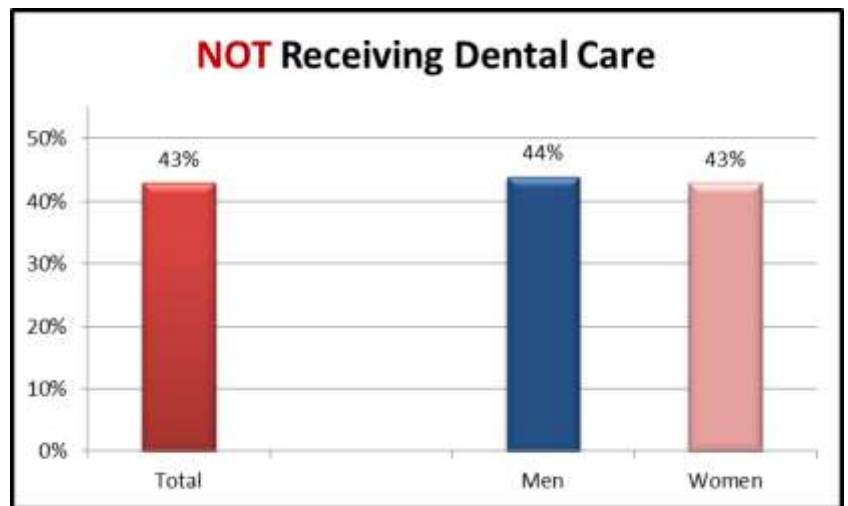
80% of surveyed men report they currently have health insurance yet 4 in 10 report they are not getting a routine physical exam or dental care.

The highest percentages of people not receiving care are men with no college education and unmarried men.

Source: Bay County Phone Survey, 2012

Interestingly, the percent of Bay County residents not receiving dental care is equal among men and women.

43% of surveyed Bay County Adults are NOT receiving dental care.



Source: Bay County Phone Survey, 2012

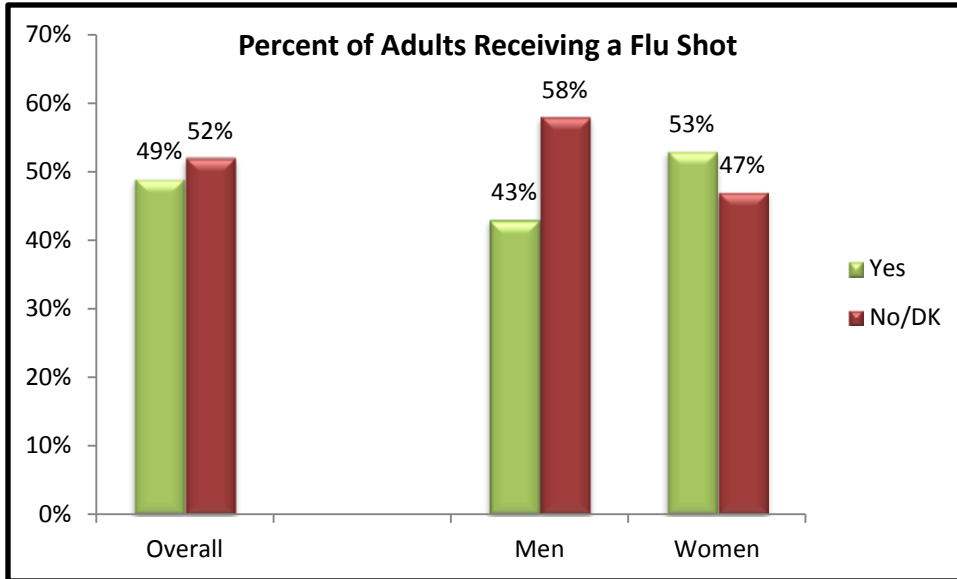
"My dentist happens to be closed on the one day that is the easiest for me to get out so I know, instead of every six months it winds up getting extended a lot more than that sometimes."

-Man

Health Behaviors in Bay County

Preventive Care – Adults

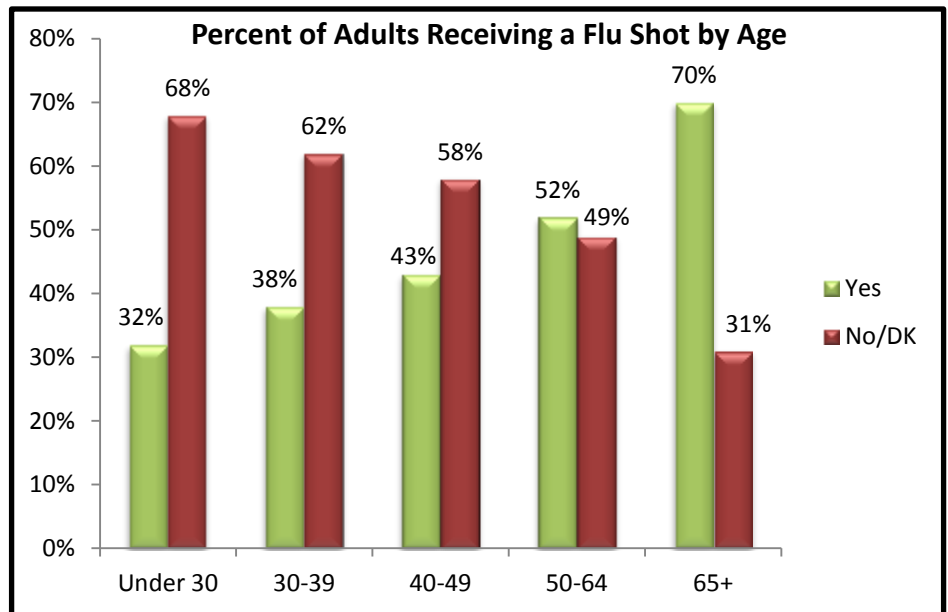
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Overall, nearly half of Bay County adult report getting a flu shot.

More women get flu shots than men.

Source: Bay County Phone Survey, 2012



Source: Bay County Phone Survey, 2012

"I think it's good if you're older."

-Mother

Getting a flu shot is strongly correlated with age. Younger residents report getting the flu shot at a much lower rate than older residents.

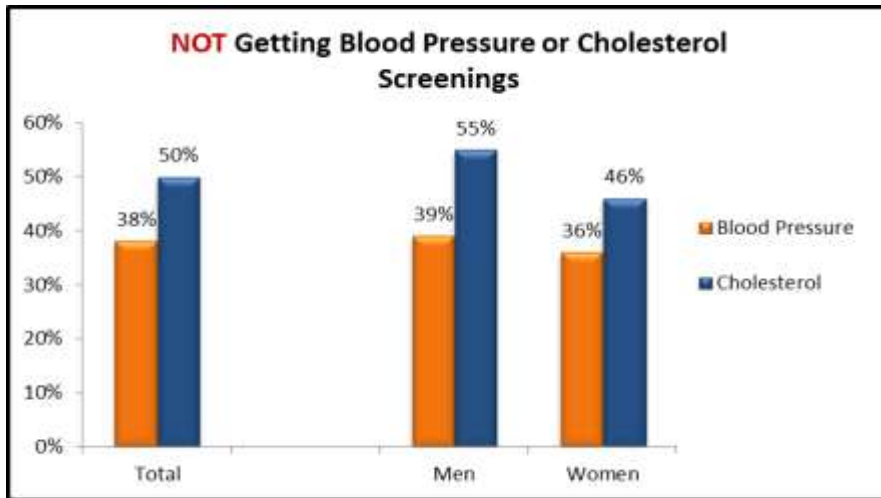
"My sister is a nurse and she absolutely refuses to have her, her children, anyone to have it. She's seen nothing but bad things and she has an asthmatic son. So and they're the ones that are supposed to have it."

-Mother

Health Behaviors in Bay County

Preventive Care – Adults

2011/2012 Bay County Community Health Assessment



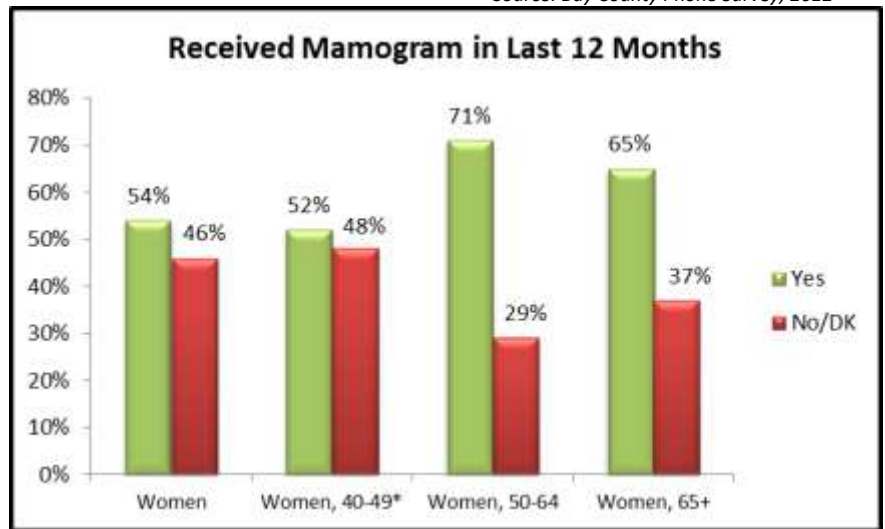
Nearly **4 in 10** are **NOT** getting their **blood pressure** checked yearly. This is represented equally across both men and women.

Half of surveyed Bay County adults report they are **NOT** getting their **cholesterol** levels checked on a yearly basis, including more than half of men.

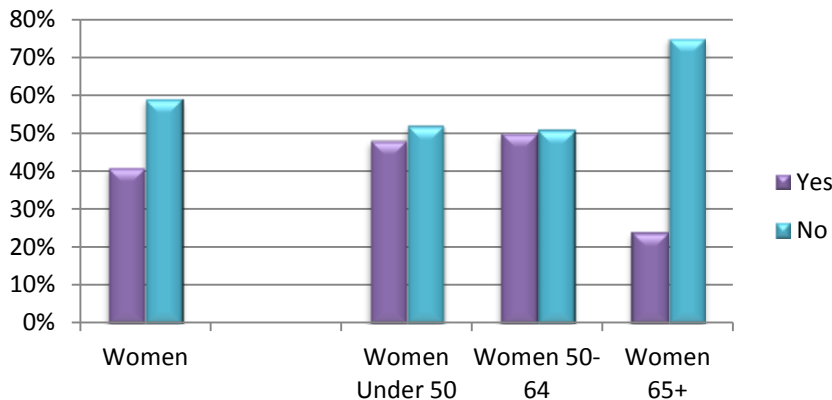
Source: Bay County Phone Survey, 2012

Source: Bay County Phone Survey, 2012

“As a parent I would have to say that you really don’t think of yourself. Your top priority is just your children. You really don’t even think about yourself as number one ‘cause you have your children.”
 -Mother



Percent of Women Receiving a Pap Smear/Pelvic Exam



Nearly 30% of women 50-64 say they have **NOT** had a mammo-gram within the past 12 months, while 37% of women 65 years or old say the same.

Nearly 6 in 10 women say they have not had a pap smear or pelvic exam in the past 12 months.

Source: Bay County Phone Survey, 2012

Health Behaviors in Bay County

Preventive Care - Adults

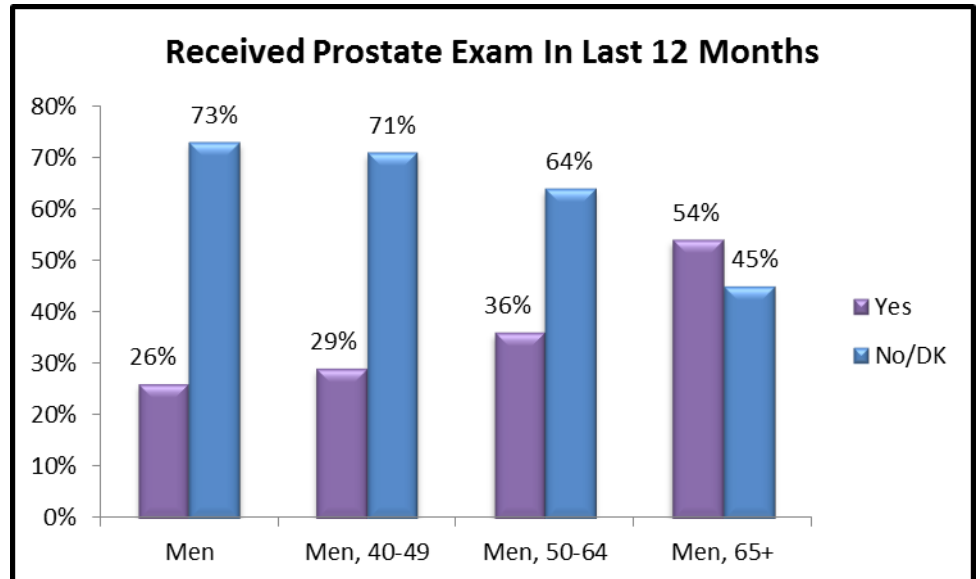
2011/2012 Bay County Community Health Assessment



7 in 10 men 40-49 and 64% of men 50-64 report that they have not had a prostate exam in the past 12 months.

Overall, 80% of adults are not getting a colonoscopy.

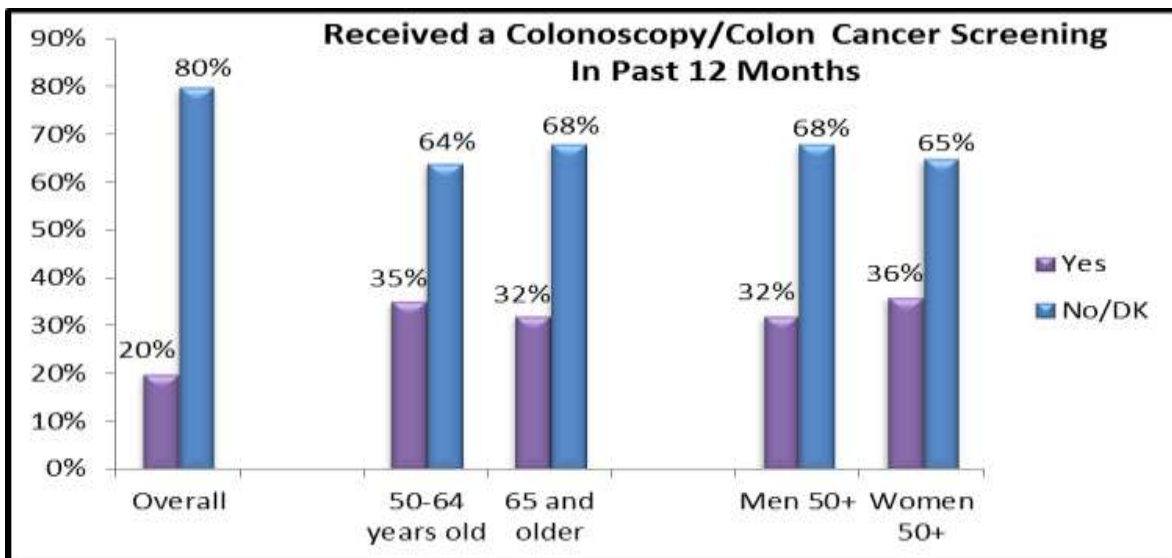
This is consistent across ages and gender.



Source: Bay County Phone Survey, 2012

"My husband is, doesn't go for a yearly checkup, I mean every couple of years usually and the dentist for sure once, but tries to hit it twice, but definitely not the doctors really like the rest of us."

-Mother

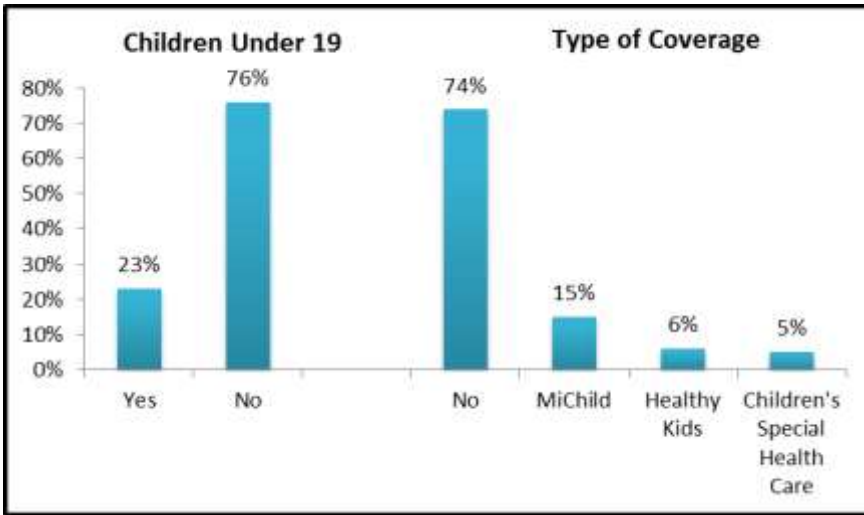


Source: Bay County Phone Survey, 2012

Health Behaviors in Bay County

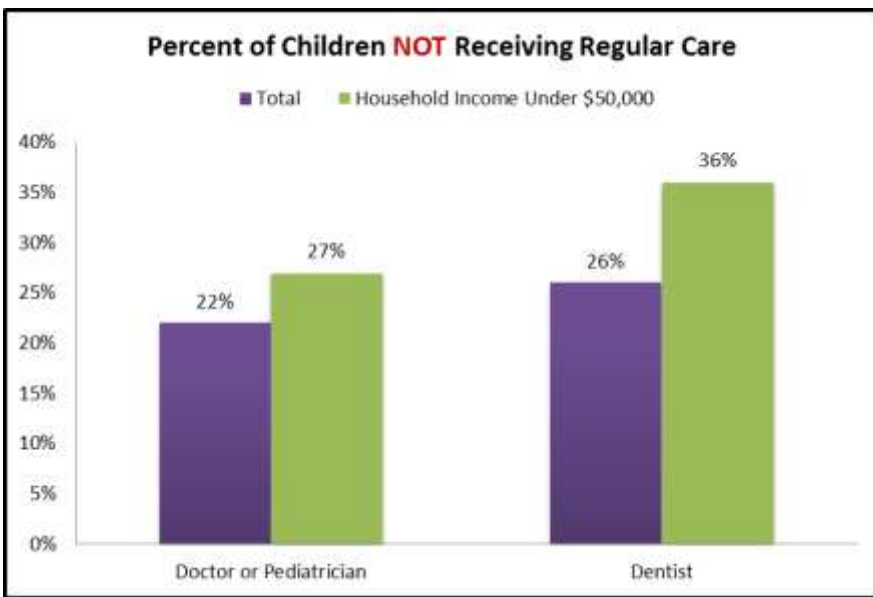
Preventive Care - Children

2011/2012 Bay County Community Health Assessment



Of the 23% of residents who currently have children, 15% say they have a child enrolled in MI Child, 6% have a child enrolled in Healthy Kids and 5% say they have a child enrolled in Children's Special Health Care

Source: Bay County Phone Survey, 2012



Are Children Getting Vaccinated?



Source: Bay County Phone Survey, 2012

22% of children are NOT seeing a doctor or pediatrician on a regular basis

26% of children are NOT seeing a dentist on a regular basis.

The percentage not getting regular care increases as income decreases.

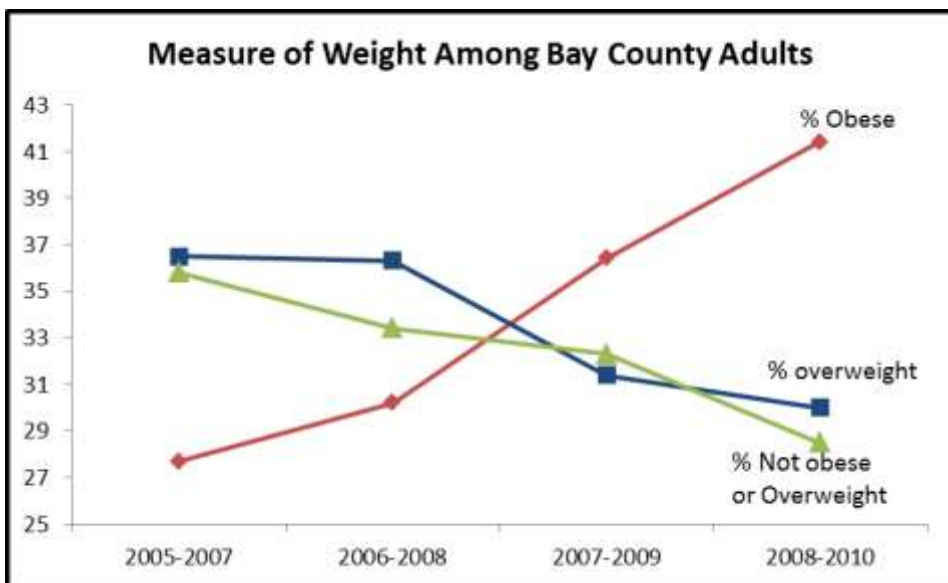
"I really think that it sort of like wanes off. When a baby's born then the doctor's office makes sure you come in every, you know three weeks, six weeks, twelve weeks ... then as the child gets older and older it just sort of like, okay you're good, you're not sick today and then we don't reschedule one for next year or six months and pretty soon it's you're only coming when you're sick."

-Woman

Health Behaviors in Bay County

Weight and Physical Activity

2011/2012 Bay County Community Health Assessment



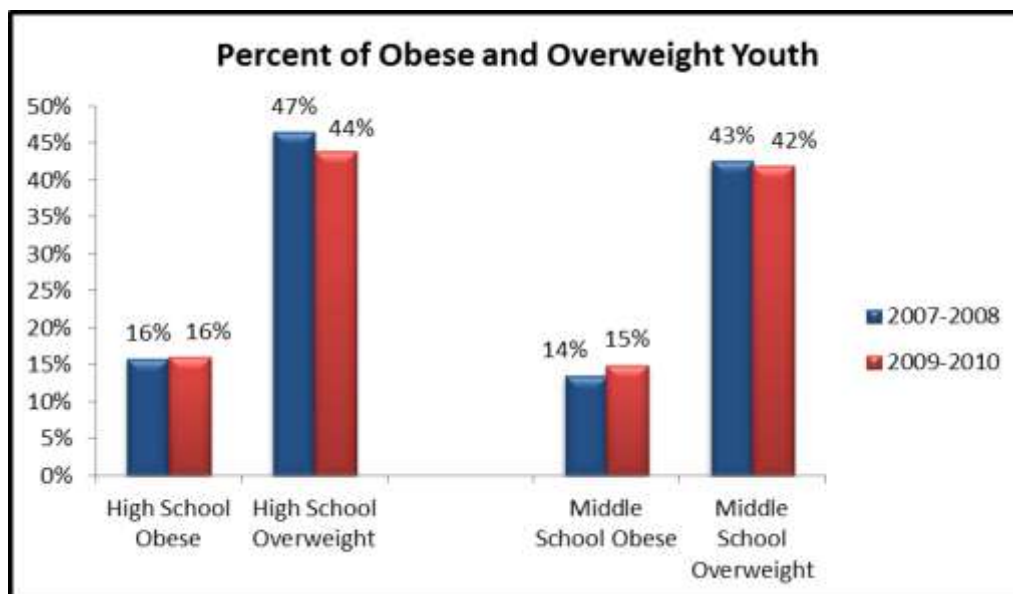
Source: Michigan Behavioral Health Survey, 2005-2010

The percent of obese adults in Bay County has increased by 14% over the last 6 years.

While Bay County is experiencing a steady increase in obese adults, the percent of middle school and high school has remained relatively unchanged over the last 4 years.

"Well it starts with being at school for one thing. They're taking away all their recesses; they don't have the recesses like we did when we were kids so they took that away. They feed them all that unhealthy fattening food. I mean we're not really showing our kids much. And then a lot of times parents are too scared to let their kids run around and play because of what media shows all the time."

-Mother

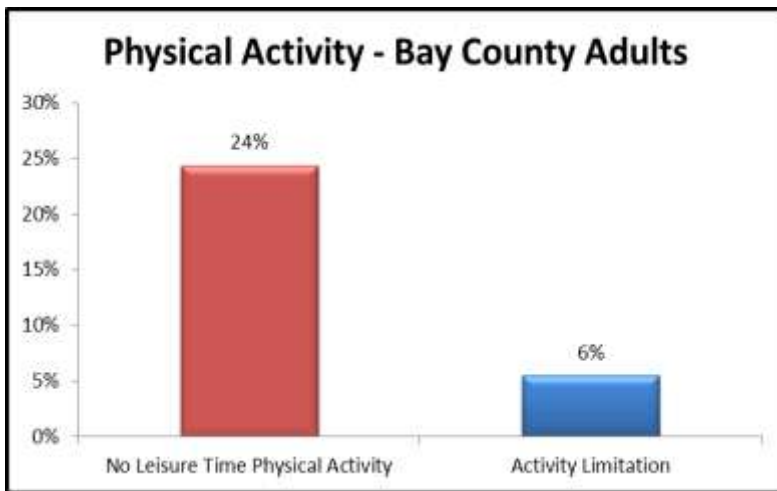


Source: Michigan Profile for Healthy Youth, 2007-2010

Health Behaviors in Bay County

Weight and Physical Activity

2011/2012 Bay County Community Health Assessment

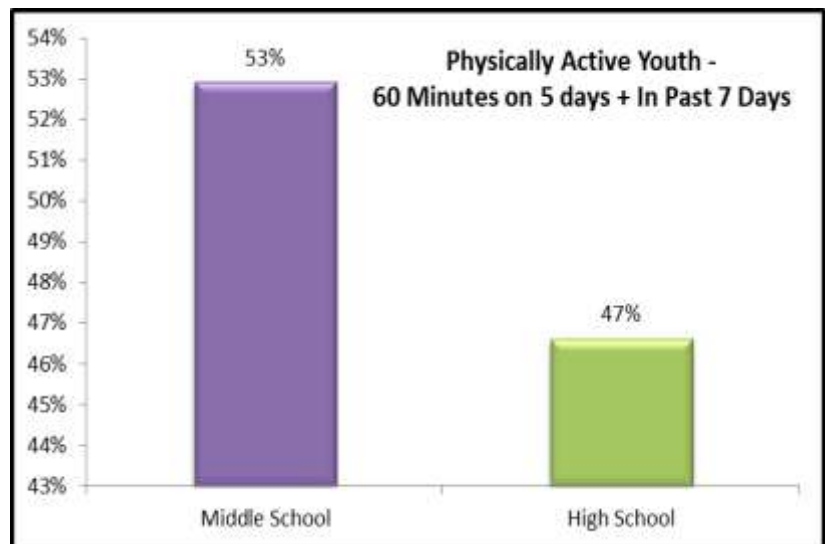


Source: Michigan Behavioral Health Survey, 2005-2010

24% of Bay County adults report they are not getting any physical activity.

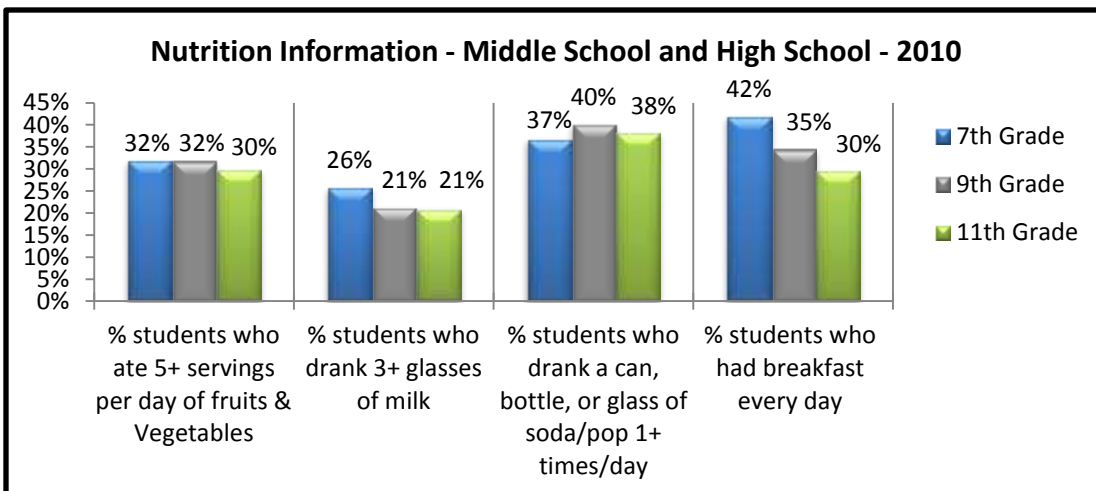
Only 6% have some kind of limitation.

Over 50% of middle school students are physically active on most days of the week compared to 47% of high school students.



Less than half of middle and high school students report eating breakfast.

Source: Michigan Profile for Healthy Youth, 2010



Less than 40% of middle and high school students report getting the proper amount of fruits, vegetables and milk per day.

Health Behaviors in Bay County

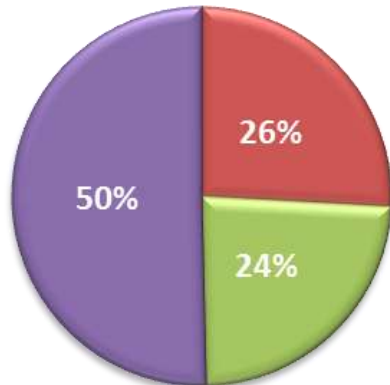
Alcohol and Tobacco Use

2011/2012 Bay County Community Health Assessment



Smoking Behavior Among Bay County Adults

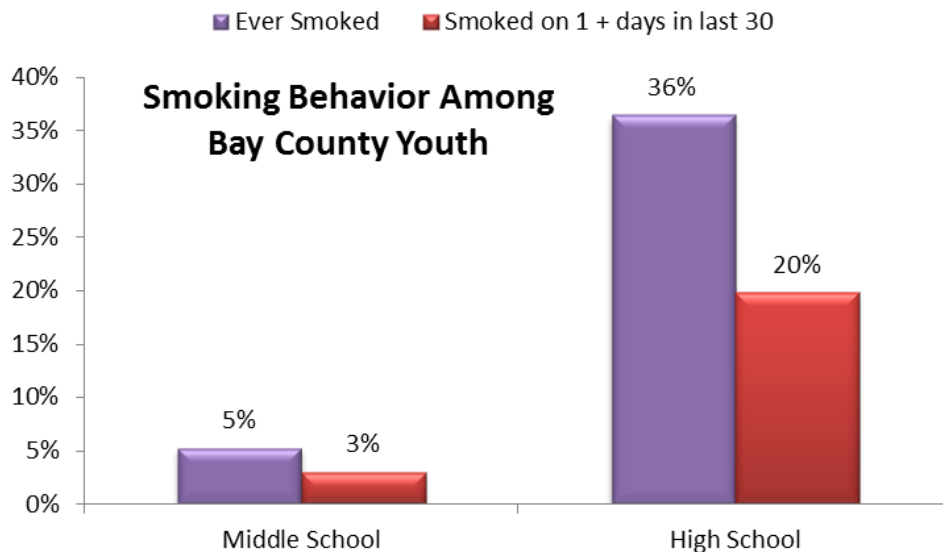
■ Current Smoking ■ Former Smoking ■ Never Smoked



26% of Bay County adults currently smoke, higher than the state average of 19%

Source: Michigan Behavioral Health Survey, 2010

20% of high school students report having smoked on 1 or more days in the last 30 days with 36% having ever smoked.

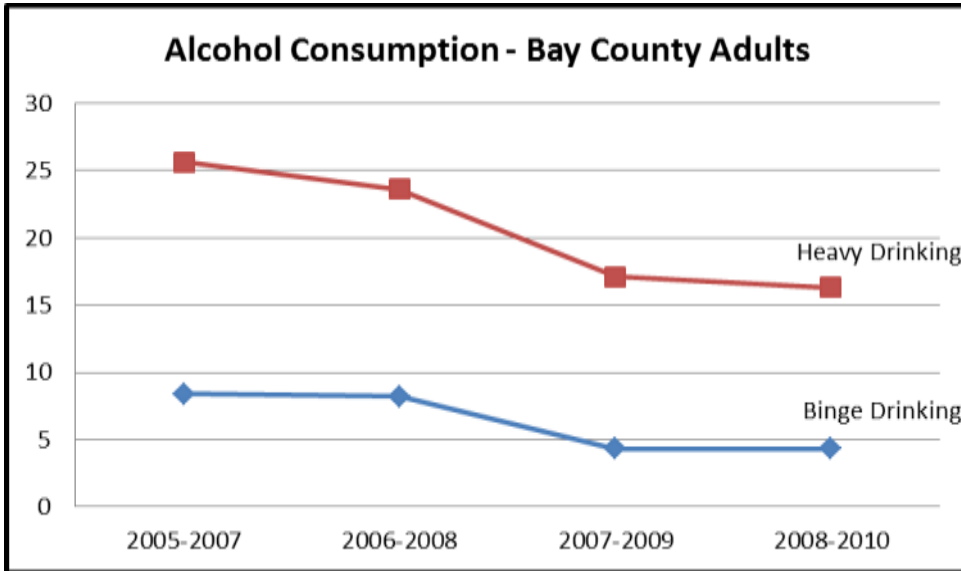


Source: Michigan profile for Healthy Youth, 2010

Health Behaviors in Bay County

Alcohol and Tobacco Use

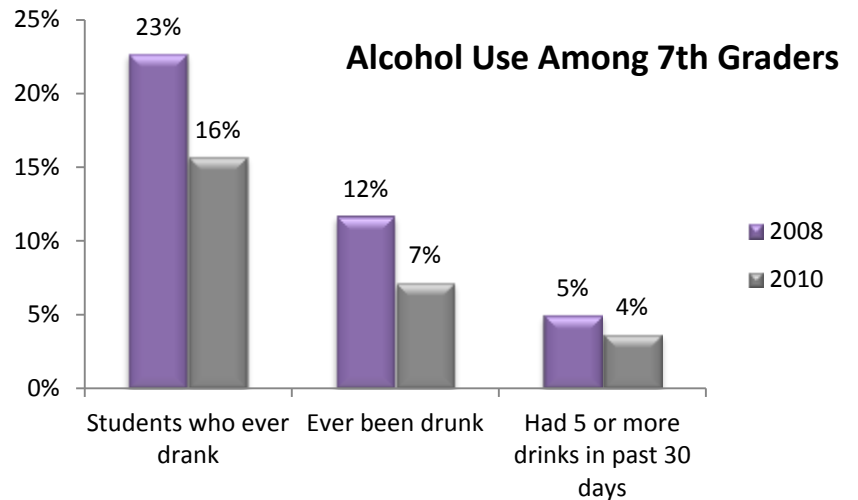
2011/2012 Bay County Community Health Assessment



Source: Michigan Behavioral Health Survey, 2005-2010

16% of Bay County adults report heavy drinking with only 4% reporting binge drinking.

Over all alcohol use among middle and high school students have remained relatively stagnant over the last 2 years.



Source: Michigan Profile for Healthy Youth, 2008-2010

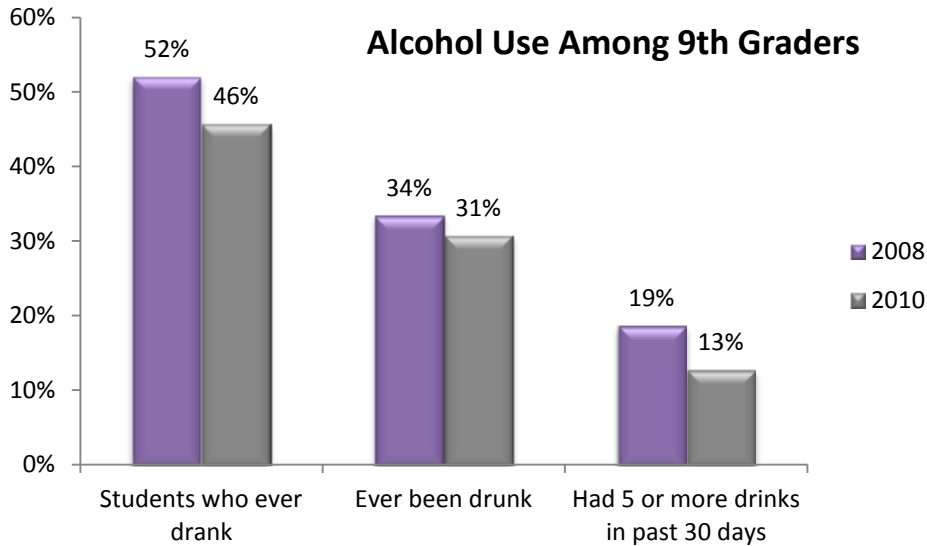
"Last year I had three students whose fathers were all in prison because of DUIs; or in jail I mean."

-Teacher/Administrator

Health Behaviors in Bay County

Alcohol and Tobacco Use

2011/2012 Bay County Community Health Assessment

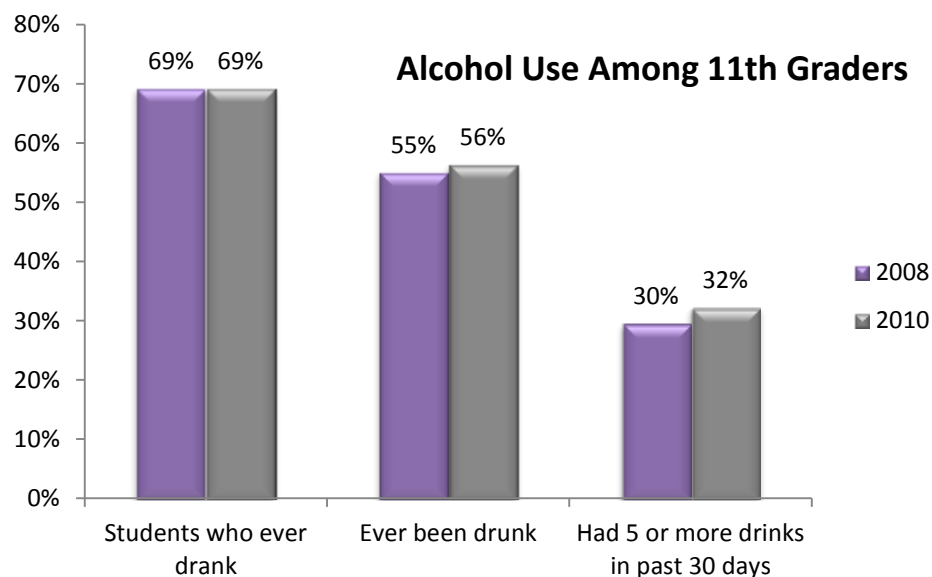


Over all alcohol use among high school students have remained relatively stagnant over the last 2 years.

Source: Michigan Profile for Healthy Youth, 2008-2010

"I see a lot of our students facing adult issues in the home. Kids who are exposed to alcohol, drugs; not only just the product but the environment of a home of an alcoholic or an abusive parent."

-Teacher/Administrator



Source: Michigan Profile for Healthy Youth, 2008-2010

What the Community is Saying

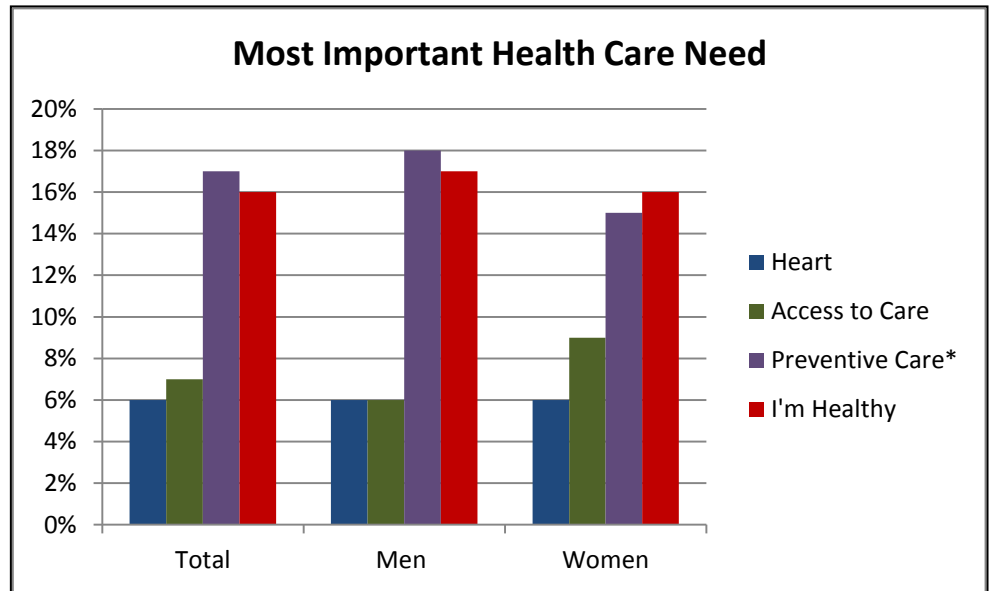
2011/2012 Bay County Community Health Assessment



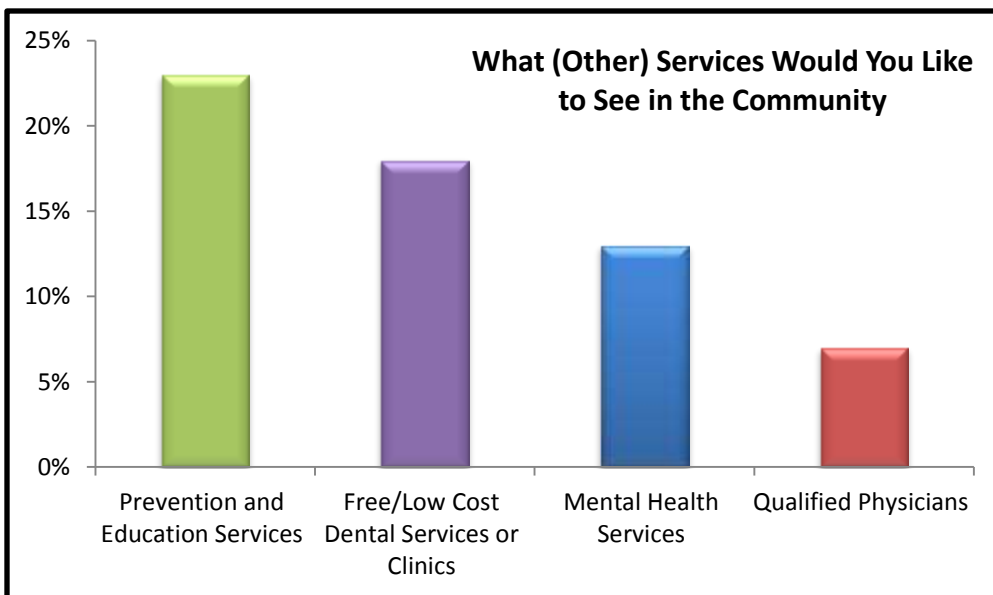
7% surveyed report **Access to Care** and 6% reported their Heart as being their most important health care need.

Interestingly, 16% of Bay County residents said they had **no concerns, they are healthy**.

17% report the most important health care need is Preventive Care



Source: Bay County Phone Survey, 2012



Source: Bay County Web Survey, 2012

About 23% of Bay County residents would like to see more prevention and education services in the community.

Dental Care is also a high priority for Bay County residents at about 18%

"I mean it's amazing how many services are available through the county that not that many people know of to take advantage of."

-Man

What We Are Learning

2011/2012 Bay County Community Health Assessment



- Bay County has an aging population with the largest growth among 55-74 year olds.
- More people are obtaining higher education.
- There was a significant increase in the number of people below the poverty level.
 - Significant increases in people on state assistance.
- There **is** a correlation between education and receiving preventive health care.
- There **is** a correlation between income and receiving preventive health care.
- Women tend to seek preventive health care more than men, especially unmarried men.
- The majority of the adult population says their health is good or very good, yet **adult obesity is climbing** at an alarming rate, **26% smoke** and **20% drink heavily or binge drink**.
- Those who described their health as good or very good had fewer poor mental health days.
- People are not seeking mental health treatment.
- Bay County does not have enough physicians or mental health professionals.
- Prevention **is** priority for Bay County residents across the spectrum.
- Risk factors for the leading causes of death
 - ✓ Obesity (inactivity, unhealthy eating)
 - ✓ High Blood Pressure
 - ✓ High Cholesterol
 - ✓ High Blood Sugar
 - ✓ Smoking
- The top 3 causes of death for Bay County (Heart Disease, Cancer and Chronic Lower Respiratory Disease, as well as Diabetes and Kidney Disease) can be reduced by taking preventive measures.

Higher Education = Better Employment = Higher Income = Better/More Health Insurance = Better Health Outcomes

Data Sources

2011/2012 Bay County Community Health Assessment



1. *American Community Survey, 2010*
2. *Bay Area Chamber of Commerce, 2010*
3. *Bay County Focus Groups, 2012*
4. *Bay County Phone Survey, 2012*
5. *Bay County Web Survey, 2012*
6. *County Health Rankings, 2011*
7. *Michigan Department of Community Health Vital Statistics, 2000*
8. *Michigan Department of Community Health Vital Statistics, 2009*
9. *Michigan League for Human Services, Kids County Data, 2009*
10. *Michigan League for Human Services, Kids Count Data, Trends in Child Well-Being, 2011*
11. *Michigan Profile for Healthy Youth Survey, 2008*
12. *Michigan Profile for Healthy Youth Survey, 2010*
13. *U.S. Census Bureau, 2000*
14. *U.S. Census Bureau, 2010*