



# **Monroe County Health Assessment 2013**

**April 15, 2013**

## **Mercy Memorial Hospital System Mission**

**We improve the health and well being of the people in our communities by providing excellent care and comprehensive services.**

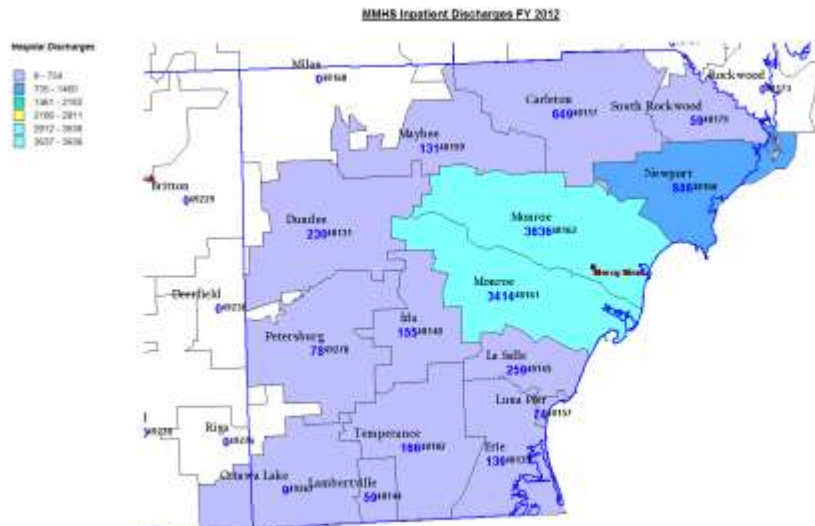
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## COMMUNITY SERVED

Mercy Memorial Hospital draws 74.4 percent of our discharges from a primary service area defined by the two Monroe zip codes and Newport. 18.6 percent of discharges are from a secondary service area comprised of the remaining Monroe County zip codes. County level data, therefore, reflects the characteristics of the population in the hospital's catchment area.

### MMHS Inpatient Discharges by Zip Code



Source: Michigan Inpatient Data Base

Within the 549.4 square miles of Monroe County a mixed urban and rural environment is supported by a diverse economy that includes industrial, retail, commercial and agricultural components. Urban and industrial developments predominate along Lake Erie, while approximately 1,100 working farms occupy the western townships.

At the beginning of the 21<sup>st</sup> Century there were steady gains in population, with Monroe County representing a growth area among southeast Michigan counties.

### CENSUS 2010 BASELINE

In Monroe County in 2010 there were 152,021 people, with a population density of 276.7 people per square mile.

There were 58,686 households of which 30.1% had children under the age of 18, 55.7% were married couples living together, 11.1% had a female householder with no husband present, and 28.2% were non-families. 23.5% of all households were made up of individuals and 9.3% had someone living alone who was 65 years of age or older. The average household size was 2.59 and the average family size was 3.05.

The median income for a household in the county was \$53,224, and the per capita income for the county was \$26,164. About 10.7% of the population was below the poverty level.

Between the 2000 and 2010 census, Monroe County's total population growth of 4.2 percent compares favorably with the state's 0.6 percent decline.

#### Census 2000 and 2010

Geographic Area	2000	2010	Change	
			Population	Percent
<b>Monroe County</b>	145,945	152,021	6,076	4.2
<b>Michigan</b>	9,938,444	9,883,640	54,804	-0.6

Source: US Census Bureau Population Division

#### FORECAST POPULATION GROWTH

The April 12, 2012 Southeast Michigan 2040 Forecast by the Southeast Michigan Council of Governments projects 3 percent growth in Monroe County over the next decade. The region as a whole, however, is expected to lose population through 2022.

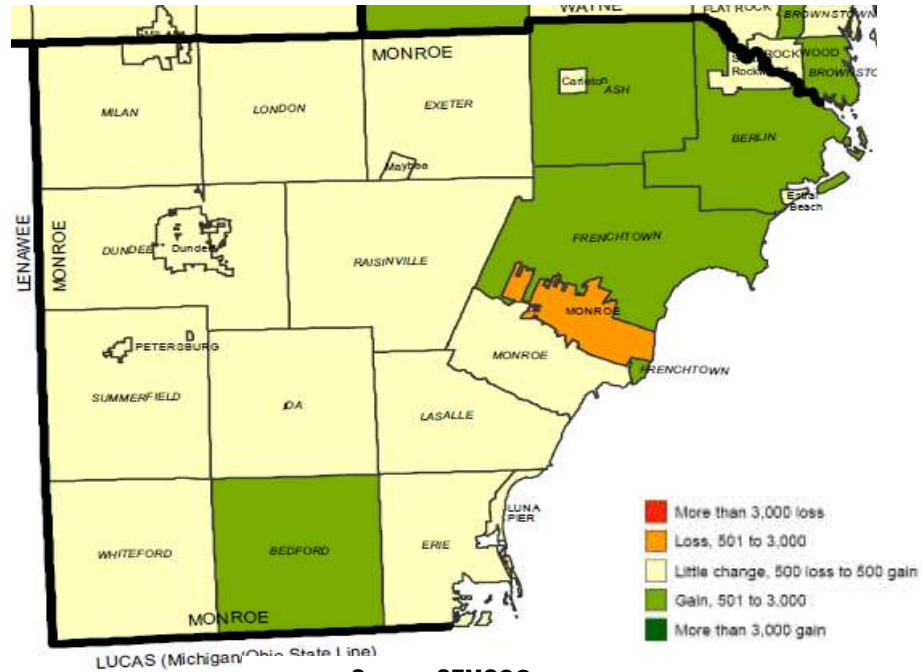
#### Population Change

	2000	2010	2000-10 Change	Projected 2020	2010-20 Change
<b>Monroe County</b>	<b>145,945</b>	<b>152,021</b>	<b>4.2</b>	<b>156,592</b>	<b>3.0</b>
Ash Twp	5,048	5,438	7.7	5,975	9.9
Bedford Twp	28,606	31,085	8.7	33,078	6.4
Berlin Twp	5,154	7,206	39.8	7,740	7.4
Carleton Village	2,562	2,345	-8.5	2,545	8.5
Dundee Village	3,522	3,957	12.4	4,304	8.9
Dundee Twp	2,819	2,802	-0.6	2,924	4.4
Erie Twp	4,850	4,517	-6.9	4,765	5.5
Estral Beach Village	486	418	-14.0	495	18.4
Exeter Twp	3,222	3,406	5.7	3,323	-2.4
Frenchtown Twp	20,777	20,428	-1.7	21,319	4.4
Ida Twp	4,949	4,964	0.3	4,763	-4.0
La Salle Twp	5,001	4,894	-2.1	5,115	4.5
London Twp	3,024	3,048	0.8	3,080	1.0
Luna Pier City	1,483	1,436	-3.2	1,603	11.6
Maybee Village	505	562	11.3	562	0
Milan City	1,710	2,066	20.8	2,199	6.4
Milan Twp	1,670	1,601	-4.1	1,668	4.2
Monroe City	22,076	20,733	-6.1	19,899	-4.0
Monroe Twp	13,491	14,568	8.0	14,513	-0.4
Petersburg City	1,157	1,146	-1.0	1,146	0
Raisinville Twp	4,896	5,816	18.8	5,922	1.8
South Rockwood Village	1,284	1,675	30.5	1,741	3.9
Summerfield Twp	3,233	3,308	2.3	3,274	-1.0
Whiteford Twp	4,420	4,602	4.1	4,639	0.8

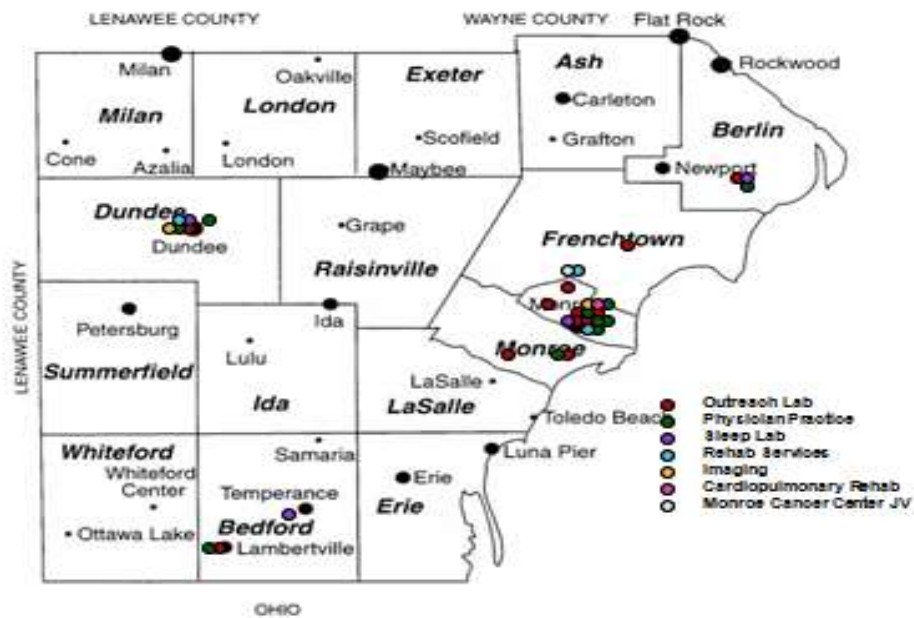
Source: SEMCOG Southeast Michigan 2040 Forecast

Except for Bedford Township, growth between 2010 and 2020 will be to the northeast of the city of Monroe. MMHS has an outreach network of 12 laboratory stations, 6 physician practices and 4 sleep labs at various locations in Monroe County.

### Population Change 2010- 2020



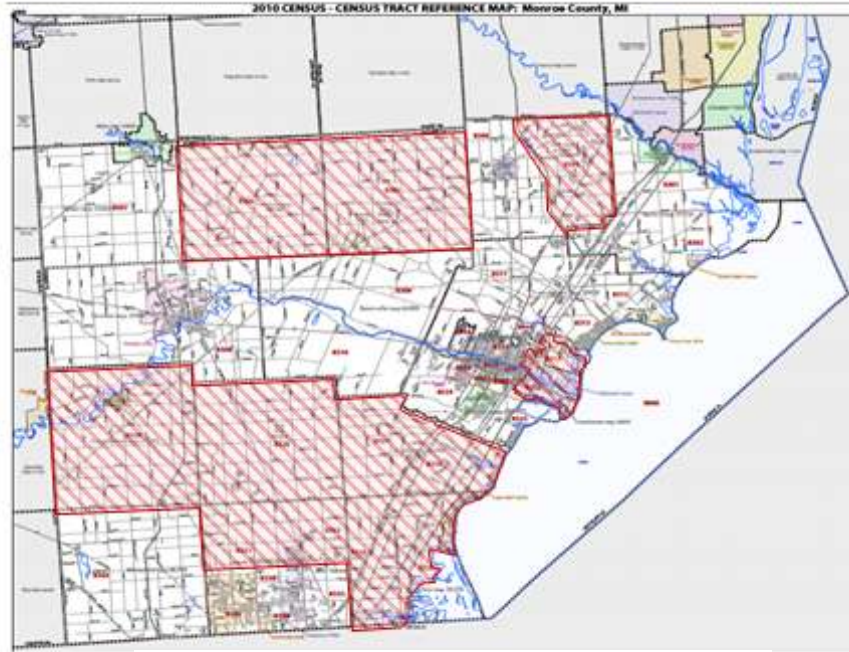
### MMHS Monroe County Presence



In 2009 there were 18,260 people living at or below the poverty level in Monroe County, or 12.1 percent of the population. In the same year, 15,339 county residents under age 65 years were uninsured. By 2014 both groups are likely to benefit from expansion of the Medicaid program and activation of the insurance exchange requirements of the Patient Protection and Affordable Care Act.

The northern and southern portions of Monroe County are designated as medically underserved areas by the federal government.

### Medically Underserved Monroe County Populations

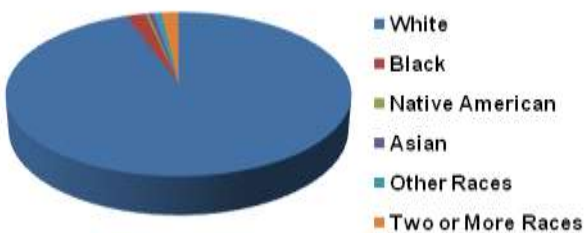


Source: US Health Resources and Services Administration

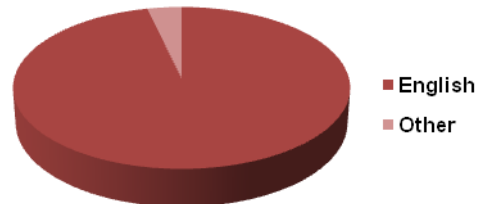
### ETHNIC MIX

The racial makeup of the county was 94.4% White, 2.1% Black or African American, 0.3% Native American, 0.6% Asian, 0.8% from other races, and 1.8% from two or more races. 96.3% spoke English and 3.7% spoke some other language at home.

### Monroe County Racial Distribution



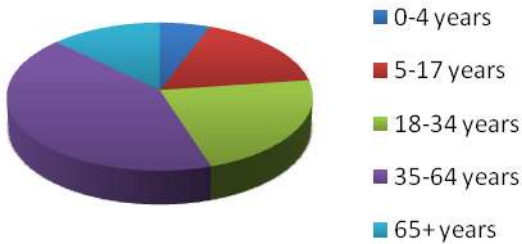
### Monroe County Language Mix



**AGE MIX**

The region will become much older by 2040, driven by the aging of the large baby boom generation. Though total households in the region will slowly increase, the aging population means a continued decline in household size. The fastest growing segment of the Monroe County population is in the 65+ age group, with growth of 37.5 percent predicted between 2010 and 2020. During the same period, the prime working age population is expected to decline. MMHS is a participant in developing and implementing the Monroe County Blueprint for Aging. The aging population is expected to be associated with increasing demand for health care services.

**2010 Monroe County Age Distribution**



<b>Monroe County Population by Age</b>		
<b>Age</b>	<b>2010</b>	<b>2020</b>
0-4 years	5.80%	6.00%
5-17 years	17.00%	15.60%
18-34 years	22.20%	20.00%
35-64 years	42.20%	40.80%
65+ years	12.80%	17.60%

Source: Monroe County Comprehensive Plan 2010 Update

**EMPLOYMENT**

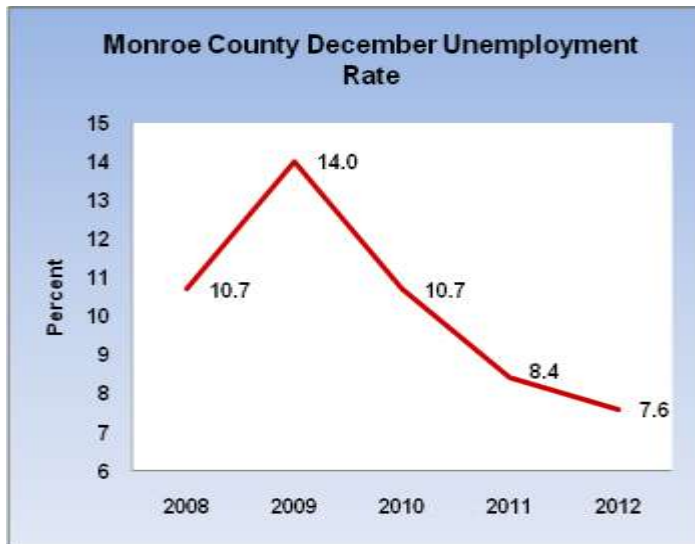
The employer base contains a number of large private and public sector employers, with Mercy Memorial Hospital System the leading employer in Monroe County.

**Monroe County Top Employers**

	<b>Employees</b>
Mercy Memorial Hospital System	1,700
DTE Energy	1,530
Mall of Monroe	874
Meijer	850
Monroe Public Schools	800
Johnson Controls	720
Bedford Public Schools	620
Guardian Industries	540
Gerdau	510
Tenneco Automotive	500
La-Z-Boy Incorporated	460
County of Monroe	440
Mannheim Detroit Auto Auction	435

Source: Monroe County Regional Chamber of Commerce 06/29/12





Source: U.S. Bureau of Labor Statistics

Monroe County has historically enjoyed a better employment climate than Michigan as a whole, which from 2006 until 2012 has led the country with the highest unemployment rate. Contraction of automobile manufacturing impacted both the state and local community before the rest of the country, and it was exacerbated by the national economic failure in the fall of 2008.

There has been improvement, with Monroe County's 7.6 percent unemployment rate comparing favorably with Michigan's 8.9 percent.

In the immediate future Great Lakes Towers is expected to employ 190 at its Port of Monroe site and create an estimated 138 related jobs, there is potential interest in the former IKO site in Monroe, and DTE Energy initiated the long-term application process for replacement of its Fermi II reactor. Gerdau Steel announced in April 2012 that it will invest another \$21.6 million in the already-committed \$134.4 million expansion of its Monroe mill, Guardian Industries is performing a \$56 million upgrade of its glass plant, and La-Z-Boy stocks were up 117 percent between October 2011 and March 2012 compared to the Russell 2000 Index gain of 36 percent. Monroe County Community College broke ground in May 2012 for a 60,000 square foot \$17 million Career Technology Center to house programs likely to grow such as computers, electronics, alternative and renewable energy, and metrology.

Significant job growth will occur in the next five years, as the area emerges from the recession on small gains in manufacturing jobs, tied to a restructured auto industry responding to increased consumer demand for automobiles. Job growth beyond 2015 will be slower, as losses in manufacturing and retail jobs due to increased productivity are more than compensated by gains in knowledge-based jobs and in ambulatory health care jobs that serve the growing senior population.

Monroe County Employment by Sector		
	2010	2020
<b>Total Employment</b>	<b>53,761</b>	<b>56,928</b>
Natural Resources, Mining, & Construction	5,515	5,852
Manufacturing	5,171	4,491
Wholesale Trade, Transportation, Warehousing, & Utilities	4,853	4,927
Retail Trade	6,548	6,335
Knowledge-based Services	8,679	10,283
Services to Households & Firms	5,253	5,875
Private Education & Healthcare	6,182	7,651
Leisure & Hospitality	5,643	5,760
Government	5,917	5,754

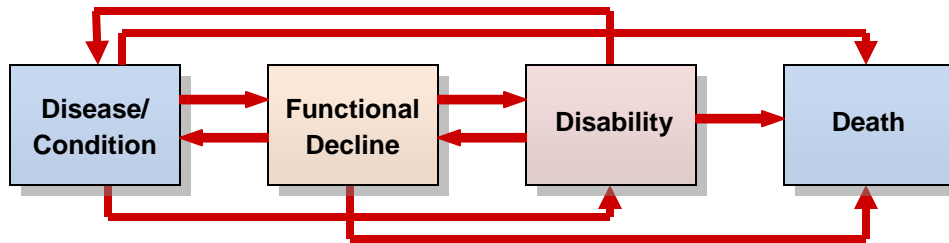
Source: SEMCOG Southeast Michigan 2040 Forecast



## COMMUNITY HEALTH

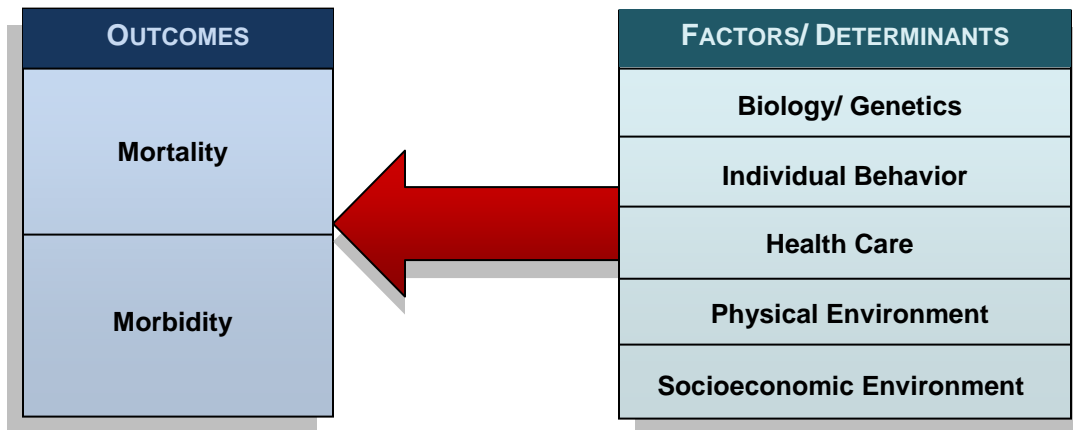
Health outcomes include the presence or absence of symptoms, functional capacity, and ultimately life or death. Health change for individuals is complex and, depending upon the intervention, there can be cure for disease and recovery from impairment.

### Potential health changes for individuals



In fact, other than death, an individual may not necessarily experience any of these other stages. The sum of these changes across all individuals in the community produces change in the population.

Tracking individual health, however, is not possible and so reliance on a broader approach is required. The health of the community can be described through measures of health outcomes and the roles of determinants. Social and economic forces in concert with biological and environmental factors shape the health of the community through their biologic impact on individuals and the population..



Knowledge of the community's current status and the factors that influence it are central in identifying actions that may improve the health and well-being of its residents.

### OUTCOMES MEASURES

Health outcomes measures include statistics for morbidity, or the incidence of illness, and mortality, or the incidence of death, in a population. Metrics for Monroe County are available through a variety of sources including the Center for Disease Control, the US Department of Health and Human Services, the Robert

Wood Johnson Foundation, and Michigan and Monroe County Health Departments. Mercy Memorial Hospital collaborated with the Monroe County Department of Public Health assembled the following data:

### 2012 Monroe County Compared to Neighboring Counties

	US	Michigan	Monroe	Lenawee	Washtenaw	Wayne
<b>Health Outcomes</b>			<b>38</b>	<b>13</b>	<b>5</b>	<b>81</b>
<b>Mortality</b>			<b>37</b>	<b>27</b>	<b>5</b>	<b>80</b>
Premature death	5,466	7,273	6,912	6,579	4,925	10,061
<b>Morbidity</b>			<b>40</b>	<b>5</b>	<b>14</b>	<b>80</b>
Poor or fair health	10%	14%	14%	9%	9%	18%
Poor physical health days	2.6	3.5	3.4	2.8	2.7	3.9
Poor mental health days	2.3	3.7	3.6	2.4	3.3	4
Low birth weight	6.0%	8.3%	7.3%	6.9%	7.4%	10.5%

Source: <http://www.countyhealthrankings.org/michigan/monroe>

Of 82 Michigan counties reporting, Monroe County is ranked 38th for outcomes overall, comparing unfavorably with Lenawee and Washtenaw counties but favorably with Wayne County. Monroe County, with 6,912 years of potential life lost per 100,000 population, demonstrates a lower premature death impact than the state and Wayne County, but higher than two of the adjoining counties.

Similarly, Monroe County is ranked 40th for **morbidity** overall, again comparing unfavorably with Lenawee and Washtenaw counties but favorably with Wayne County. Monroe County morbidity and mortality measures are all unfavorable compared with the US benchmark.

### 2009 Monroe County Compared to 57 Peer US Counties

County Rate	Peer County Range	Infant Mortality	U.S. Rate 2005	Healthy People 2010 Target
5.7	3.8 - 7.9	Infant Mortality	6.9	4.5
5.3	3.6 - 7.2	White non Hispanic Infant Mortality	5.8	4.5
na	0.0 - 27.8	Black non Hispanic Infant Mortality	13.6	4.5
na	0.0 - 8.9	Hispanic Infant Mortality	5.6	4.5
3.6	2.5 - 5.6	Neonatal Infant Mortality	4.5	2.9
2.1	1.0 - 2.6	Post-neonatal Infant Mortality	2.3	1.2
County Rate	Peer County Range	Death Measures	U.S. Rate 2005	Healthy People 2010 Target
21.5	17.7 - 31.0	Breast Cancer (Female)	24.1	21.3

19.5	13.9 - 20.9	Colon Cancer	17.5	13.7
195.9	98.1 - 192.3	Coronary Heart Disease	154	162
3.4	0.8 - 5.0	Homicide	6.1	2.8
67.9	36.0 - 70.0	Lung Cancer	52.6	43.3
14.5	8.7 - 19.6	Motor Vehicle Injuries	14.6	8
56.3	41.0 - 63.7	Stroke	47	50
10.4	7.6 - 14.3	Suicide	10.9	4.8
28.1	13.7 - 27.4	Unintentional Injury	39.1	17.1

Source: <http://communityhealth.hhs.gov/>

Monroe County **infant mortality** measures generally fell in the mid-range for peer counties and were favorable compared to the US, but did not meet the US Healthy People 2010 targets. Monroe County deaths per 100,000 population were favorable compared to the US rates for homicide, motor vehicle injuries, suicide and unintentional injuries. There were significant unfavorable variances, however, for colon cancer, coronary heart disease, lung cancer and stroke.

#### Leading Causes of Death for Michigan and Monroe County in 2009 and US in 2008

Rank	Cause of Death	Number of Deaths			Rate of Deaths		
		MI	Monroe	U.S.	MI	Monroe	U.S.
1	Heart Disease	328	23,044	617,527	214.8	231.1	203.1
2	Cancer	321	20,174	566,137	210.2	202.4	186.2
3	Chronic Respiratory Diseases	65	4,941	141,075	42.6	49.6	46.4
4	Stroke	69	4,415	133,750	45.2	44.3	44.0
5	Unintentional Injuries	53	3,671	121,207	34.7	36.8	39.9
6	Diabetes Mellitus	55	2,689	70,601	36	27	23.2
7	Alzheimer's Disease	27	2,552	82,476	17.7	25.6	27.1
8	Kidney Disease	22	1,699	48,283	14.4	17	15.9
9	Pneumonia/Influenza	17	1,540	56,335	11.1	15.4	18.5
10	Intentional Self-harm (Suicide)	11	1,164	35,933	7.2	11.7	11.8

Source: <http://www.mdch.state.mi.us/pha/osr/chi/deaths/frame.asp?Topic=7&Mode=1>

Monroe County **mortality** rates for chronic lower respiratory disease, unintentional injuries, Alzheimer's, kidney disease, pneumonia/ influenza and suicide were favorable compared to Michigan and US rates. Among the ten top causes of death, stroke ranks third in Monroe County but is fourth in Michigan and the US. Monroe County deaths per 100,000 population for cancer, stroke and diabetes exceed both the state and US benchmarks. Heart disease mortality rates for Michigan and Monroe County exceed the US rate.

There are no significant apparent racial disparities in the Monroe County death rates.

### Monroe County 2009 Mortality

	Total			White	Black	Other
	Total	Male	Female	Total	Total	Total
Deaths	1,247	608	639	918	26	4
Crude Death Rate	8.2	8	8.3	6.3	6.1	*

Source: <http://www.mdch.state.mi.us/pha/osr/chi/profiles/frame.html>

There are fewer cases of **infectious diseases** for Monroe County than the calculated expected cases based on 57 peer US counties. No cases of AIDS or TB were reported.

### 2009 Monroe County Infectious Diseases

	Reported Cases	Expected Cases
AIDS	na	na
Tuberculosis	na	na
Haemophilus influenzae B	0	0
Hepatitis A	2	5
Hepatitis B	6	5
Measles	0	0
Pertussis	11	41
Congenital Rubella Syndrome	0	0
Syphilis	0	0

Source: <http://communityhealth.hhs.gov/>

### HEALTH FACTORS MEASURES

A population health approach recognizes that any analysis of the health of the community must extend beyond an assessment of traditional outcomes indicators like death, disease and disability. A population health approach establishes indicators related to mental and social well-being, quality of life, life satisfaction, income, employment and working conditions, education and other factors known to influence health.

#### Behavior

Behavior implies actions that increase exposure to the factors that produce disease or protect individuals from it. Actions such as smoking, exercise, diet, alcohol consumption, drug use, and unprotected sex help determine the development of disease. Of 82 Michigan counties reporting, Monroe County is ranked 53rd for unhealthy behaviors.

## 2012 Monroe County Compared to Neighboring Counties

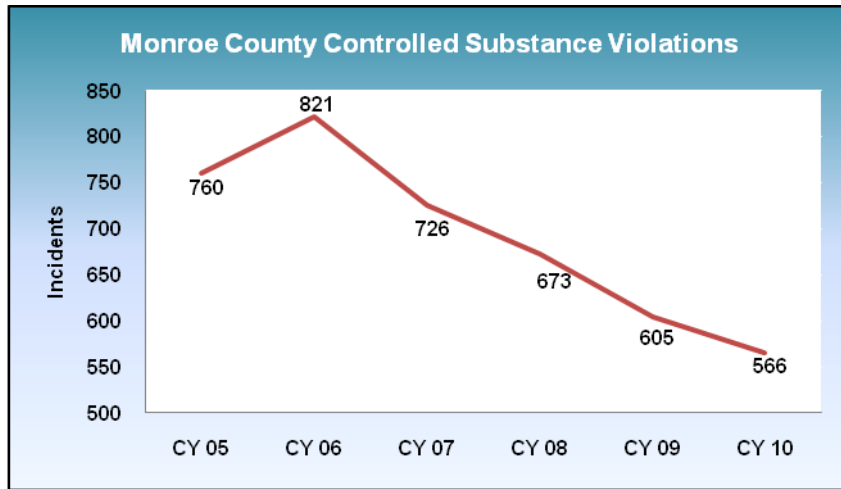
	Michigan	Monroe	Lenawee	Washtenaw	Wayne
<b>Health Factors</b>		<b>43</b>	<b>27</b>	<b>1</b>	<b>82</b>
<b>Health Behaviors</b>		<b>53</b>	<b>22</b>	<b>1</b>	<b>70</b>
Adult smoking	21%	21%	17%	13%	23%
Adult obesity	32%	35%	34%	25%	34%
Physical inactivity	25%	28%	24%	19%	28%
Excessive drinking	18%	22%	22%	15%	17%
Motor vehicle crash death rate	13	14	16	8	11
Sexually transmitted infections	457	198	220	331	963
Teen birth rate	34	29	37	13	47

Source: <http://www.countyhealthrankings.org/michigan/monroe>

- **Smoking** is identified as a cause in multiple diseases including various cancers, cardiovascular disease, respiratory conditions, low birth weight, and other adverse health outcomes. Monroe County's adult smoking rate is comparable to Michigan, but unfavorable compared to Lenawee and Washtenaw counties.
- **Obesity** is often the end result of an overall energy imbalance due to poor diet and limited physical activity. Obesity increases the risk for health conditions such as coronary heart disease, type 2 diabetes, cancer, hypertension, dyslipidemia, stroke, liver and gallbladder disease, sleep apnea and respiratory problems, and osteoarthritis. Adult obesity in Monroe County is more prevalent than for the state or any neighboring county.
- **Decreased physical activity** has been related to several disease conditions such as type 2 diabetes, cancer, stroke, hypertension, cardiovascular disease, and premature mortality, independent of obesity. At 28% reporting little activity, Monroe County adults appear to be more sedentary than for the state in general and for two of three neighboring counties.
- **Excessive drinking** is a risk factor for a number of adverse health outcomes such as alcohol poisoning, hypertension, acute myocardial infarction, sexually transmitted infections, unintended pregnancy, fetal alcohol syndrome, sudden infant death syndrome, suicide, interpersonal violence, and motor vehicle crashes. Monroe County compares unfavorably with the state and two of the three neighboring counties.
- Chlamydia is the most common bacterial **sexually transmitted infection** in North America and is one of the major causes of tubal infertility, ectopic pregnancy, pelvic inflammatory disease, and chronic pelvic pain. STIs in general are associated with a significantly increased risk of morbidity and mortality, including increased risk of cervical cancer, involuntary infertility, and premature death. With 198 infections per 100,000 population, Monroe County is favorable compared to the state and neighboring counties.
- **Teen pregnancy** is associated with poor prenatal care and pre-term delivery. Pregnant teens are more likely than older women to receive late or no prenatal care, have gestational hypertension and anemia, and achieve poor maternal weight gain. They are also more likely to

have a pre-term delivery and low birth weight, increasing the risk of child developmental delay, illness, and mortality. Monroe County, at 29 births per 1,000 females age 15- 19, compares favorably with state and two of three adjacent counties.

- **Substance abuse** is associated with a wide range of health effects including impaired cognition, behavior changes, cardiovascular and pulmonary failure, violence, and motor vehicle crashes.



Source: Michigan Incident Crime Reports, Michigan State Police 2012

and Monroe County substance abuse rates appear to compare favorably with the state rates, controlled substance violations have been declining since 2006.

### High School Substance Abuse

High School	2009		2011	
	Monroe	MI	Monroe	MI
Alcohol past 30 days	29.9%	37.0%	26.0%	30.5%
Marijuana past 30 days	17.3%	20.7%	17.6%	18.6%
Cocaine past 30 days	1.1%	2.9%	1.0%	1.9%
Heroin past 30 days	0.4%	5.0%	0.5%	2.5%
Methamphetamines past 30 days	1.2%	6.2%	0.7%	2.9%
Club drug last 30 days	2.3%	4.4%	1.5%	3.3%
Prescription past 30 days	6.6%	n/a	4.5%	8.2%
Pain medication past 30 days	9.3%	n/a	6.3%	12.2%

Source: Michigan Department of Education- Michigan Profile for Healthy Youth and Michigan Youth Risk Behavior Survey

## Clinical Care

Access to, and quality of, medical care can be a determinant of disease. Its major impact is on the course of disease by attempting to prevent or minimize disability and death once disease occurs.

### 2012 Monroe County Compared to Neighboring Counties

	Michigan	Monroe	Lenawee	Washtenaw	Wayne
<b>Clinical Care</b>		<b>74</b>	<b>53</b>	<b>1</b>	<b>67</b>
Uninsured	14%	12%	14%	10%	17%
Primary care physicians	1,119:1	3,120:1	2,798:1	404:1	1,115:1
Preventable hospital stays	74	97	61	63	92
Diabetic screening	84%	76%	78%	86%	79%
Mammography screening	68%	62%	71%	73%	n/a

Source: <http://www.countyhealthrankings.org/michigan/monroe>

- **Lack of health insurance** coverage is a significant barrier to accessing needed health care. Monroe County compares favorably with Michigan and two of three adjacent counties.
- Having access to care requires not only having financial coverage but also access to providers. Sufficient **availability of primary care physicians** is essential so that people can get preventive and primary care, and when needed, referrals to appropriate specialty care. The ratio of population to primary care practitioners for Monroe County suggests coverage is well below average.
- Regular HbA1c **screening among diabetic patients** is considered the standard of care. It helps assess the management of diabetes over the long term by providing an estimate of how well a patient has managed his or her diabetes over the past two to three months. When hyperglycemia is addressed and controlled, complications from diabetes can be delayed or prevented. Monroe County's screening rate is unfavorable compared to the state and neighboring counties.
- Evidence suggests that **mammography screening** reduces breast cancer mortality, especially among older women. The percent of women ages 40-69 receiving a mammogram is a widely endorsed quality of care measure. Monroe County's screening rate is unfavorable compared to the state and neighboring counties.
- **Hospitalization for diagnoses amenable to outpatient services** suggests that the quality of care provided in the outpatient setting was less than ideal or overuse of the hospital as a main source of care. Hospital stays for conditions such as adult asthma, bacterial pneumonia, congestive heart failure, chronic obstructive pulmonary disease, diabetes, low birth weight, urinary tract infection and others can be reduced by strong outpatient care systems. In Monroe County more timely and effective ambulatory care might decrease congestive heart failure, pneumonia and chronic obstructive pulmonary disease hospitalizations.



## 2010 Ten Leading Causes of Ambulatory Care Sensitive Hospitalizations

	MICHIGAN		MONROE	
	Number	Percent	Number	Percent
<b>ALL SENSITIVE CONDITIONS</b>	<b>265,255</b>	<b>100</b>	<b>4,557</b>	<b>100</b>
Congestive Heart Failure	36,655	13.8	599	13.1
Bacterial Pneumonia	30,495	11.5	558	12.2
Chronic Obstructive Pulmonary	26,076	9.8	547	12.0
Kidney/Urinary Infections	17,949	6.8	320	7.0
Cellulitis	16,284	6.1	347	7.6
Asthma	15,471	5.8	265	5.8
Diabetes	13,646	5.1	198	4.3
Grand Mal & Other Epileptic Conditions	7,601	2.9	109	2.4
Dehydration	6,414	2.4	Convulsions 91	2.0
Gastroenteritis	3,964	1.5	129	2.8
All Other Ambulatory Care Sensitive Conditions	90,700	34.2	1,394	30.6

Source: <http://www.mdch.state.mi.us/pha/osr/CHI/hosp/frame.html>

- An **inventory of the number, distribution and nature of care providers** is an indicator of access to intervention that might minimize or reverse functional decline and disability, and to prevent death.

## 2013 Hospital Bed Inventory Monroe, Wayne Counties

	Location	Licensed Beds
Mercy Memorial Hospital	Monroe	217
Oakwood Annapolis Hospital	Wayne	221
Oakwood Hospital and Medical Center	Dearborn	632
Vibra of Southeastern Michigan	Lincoln Park	220
Oakwood Southshore Medical Center	Trenton	193
Henry Ford Wyandotte Hospital	Wyandotte	345
Oakwood Heritage Hospital	Taylor	151
Select Specialty Hospital-Wyandotte	Taylor	40
<b>HOSPITAL GROUP TOTAL</b>		<b>2019</b>
<b>HOSPITAL GROUP BED NEED</b>		<b>1502</b>
<b>Excess Bed Capacity</b>		<b>517</b>

Source: [http://www.michigan.gov/documents/mdch/HOSPBEDINV.xls\\_Nov.\\_2010\\_337358\\_7.pdf](http://www.michigan.gov/documents/mdch/HOSPBEDINV.xls_Nov._2010_337358_7.pdf)

Mercy Memorial Hospital is the only acute care facility in Monroe County. With 217 medical-surgical and 21 inpatient psychiatric beds, the hospital admits approximately 9,800 patients annually. Outpatient visits total about 177,000 and emergency department visits 49,000 each year. The Michigan Department of Community Health considers the planning region to be over bedded.

Admissions to other than Mercy Memorial Hospital, including for tertiary referrals, are primarily to the University of Toledo, ProMedica Toledo Hospital, and St. Vincent Medical Center in Toledo, Ohio or to the University of Michigan and St. Joseph Mercy in Ann Arbor, Michigan.

### 2013 Monroe Planning Area Nursing Home Inventory

	Location	Licensed Beds
<b>Primary Service Area</b>		
Magnumcare of Monroe	Monroe	152
The Lutheran Home	Monroe	122
Mercy Memorial Nursing Center	Monroe	70
Medilodge of Monroe	Monroe	103
Fountain View of Monroe	Monroe	119
Sisters Servants of the Immaculate Heart	Monroe	58
<b>Secondary Service Area</b>		
Hickory Ridge of Temperance	Temperance	74
<b>PLANNING AREA TOTAL</b>		<b>698</b>
<b>AREA BED NEED</b>		<b>686</b>
<b>Unmet Bed Need</b>		<b>0</b>

Source: [http://www.michigan.gov/documents/mdch/LTCBEDINV\\_\\_revised\\_Nov\\_2012\\_404761\\_7.pdf](http://www.michigan.gov/documents/mdch/LTCBEDINV__revised_Nov_2012_404761_7.pdf)

primary considers 90 percent of the county's nursing home beds are within Mercy Memorial Hospital's service area. As with acute care beds, the Michigan Department of Community Health considers the planning region to be over bedded.

Other resources providing access to care in Monroe County include:

- Monroe Community Mental Health Authority, Monroe- short term outpatient services, case management, coordination and Assertive Community Treatment services to Medicaid and uninsured to children and families, individuals with developmental disabilities, adults with mental illness and all age groups for individuals with a co-occurring mental illness and substance abuse diagnoses.
- Monroe County Health Department, Monroe- HIV counseling & testing, testing and treatment of tuberculosis and communicable diseases, immunizations, family planning services, sexually transmitted diseases diagnosis and treatment, and dental services.

- Family Medical of Michigan. Temperance, Carleton and Monroe- nonprofit, federally qualified community health centers for primary care, individual and group therapy mental health, and dental services.
- Faithworks Medical, Monroe- primary medical care to uninsured working adult residents of Monroe County.
- The Sacred Heart Clinic, Monroe- free basic health care to the underinsured or uninsured.
- Mercy Memorial Home Care Connection, Heartland Home Health and Progressive Therapy Home Health Care, all in Monroe- Medicare home health services.
- Mercy Memorial Hospice, Arbor Hospice and Heartland Hospice in Monroe; Erie West Hospice and Hospice of Northwest Ohio in Lambertville- end of life and palliative care. Monroe County is also served by Hospice of Michigan in Ann Arbor.

**Social Economic Factors**

Socioeconomic factors include education, income and occupation status. These measures have been shown to be determinants of diseases as varied as breast cancer, tuberculosis and occupational injury. Of 82 Michigan counties reporting, Monroe County falls in the top quartile for socioeconomic indicators.

**2012 Monroe County Compared to Neighboring Counties**

	Michigan	Monroe	Lenawee	Washtenaw	Wayne
<b>Social &amp; Economic Factors</b>		<b>19</b>	<b>21</b>	<b>2</b>	<b>81</b>
High school graduation	76%	80%	82%	85%	70%
Some college	63%	59%	58%	83%	56%
Unemployment	12.5%	12.4%	14.0%	8.1%	14.5%
Children in poverty	23%	17%	19%	13%	35%
Inadequate social support	20%	23%	16%	16%	26%
Children in single-parent households	32%	25%	28%	26%	47%
Violent crime rate	518	219	227	349	1,171

Source: <http://www.countyhealthrankings.org/michigan/monroe>

- The relationship between more education and improved health outcomes is well known, with years of formal education correlating strongly with improved work and economic opportunities, reduced psychosocial stress, and healthier lifestyles. Monroe County compares favorably with the state's high school graduation rate, and only slightly below Michigan for adults with some college preparation.
- Unemployment may lead to physical health responses ranging from self-reported physical illness to mortality, especially suicide. It has also been shown to lead to an increased

risk for disease or mortality from unhealthy behaviors related to alcohol and tobacco consumption, diet, and exercise. Because employee-sponsored health insurance is the most common source of health insurance coverage, unemployment can also limit access to health care. Monroe County's unemployment rate continues to be among the lowest in the state and in southeast Michigan.

- Poverty can result in negative health consequences, such as increased risk of mortality, increased prevalence of medical conditions and disease incidence, depression, intimate partner violence, and poor health behaviors. While negative health effects resulting from poverty are present at all ages, children in poverty greater morbidity and mortality due to an increased risk of accidental injury and lack of health care access. Monroe County compares favorably with the state and regional poverty rates.
- Poor family support, minimal contact with others, and limited involvement in community life are associated with increased morbidity and early mortality. Furthermore social support networks have been identified as powerful predictors of health behaviors. In Monroe County social support is a little weaker than for the state and Wayne County, but more robust than for Lenawee and Washtenaw counties.
- Adults and children in single-parent households are both at risk for adverse health outcomes such as substance abuse, depression, and suicide, and unhealthy behaviors such as smoking and excessive alcohol use. There are proportionally fewer single-parent households in Monroe County than in the state or surrounding counties.
- High levels of violent crime compromise physical safety and psychological well-being. Crime rates can also deter residents from pursuing healthy behaviors such as exercising out-of-doors. The violent crime rate for Monroe County is lower than for Michigan and neighboring counties.

### Environmental Factors

Environmental factors determine disease or the course of disease in many ways. The unaltered physical world, for example, may produce death and disability from natural disasters or iodine deficiencies in food-producing soil. The altered physical environment includes exposure to toxic substances, highway hazards, and other results of human intervention.

### 2012 Monroe County Compared to Neighboring Counties

	Michigan	Monroe	Lenawee	Washtenaw	Wayne
<b>Physical Environment</b>		<b>60</b>	<b>36</b>	<b>68</b>	<b>77</b>
Air pollution-particulate matter days	5	3	2	4	8
Air pollution-ozone days	3	0	3	6	4
Access to recreational facilities	9	9	10	11	6
Limited access to healthy foods	6%	10%	0%	8%	3%

Fast food restaurants	48%	54%	46%	47%	54%
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Source: <http://www.countyhealthrankings.org/michigan/monroe>

- The relationship between **elevated air pollution**, particularly fine particulate matter and ozone, and compromised health has been well documented. The negative consequences of ambient air pollution include decreased lung function, chronic bronchitis, asthma, and other adverse pulmonary effects. Monroe County met the national air quality standards for carbon monoxide, nitrogen dioxide, sulphur dioxide, ozone, particulate matter and lead in 2009.
- The **availability of recreational facilities** can influence individuals' and communities' choices to engage in physical activity. Proximity to places with recreational opportunities is associated with higher physical activity levels, which in turn is associated with lower rates of adverse health outcomes associated with poor diet, lack of physical activity, and obesity. Monroe County and the state have a rate of 9 recreational facilities per 100,000n population.
- Studies have linked the food environment to consumption of healthy food and overall health outcomes. The percent of Monroe County's low income population that doesn't **live close to grocery stores** is higher in Monroe County than surrounding counties and the state.
- Studies show an increase in obesity and diabetes prevalence with increased **access to fast food outlets** in a community. There is a slightly higher percent of restaurants that are fast food establishments in Monroe County compared to the state and two of the three neighboring counties.

### 2009 Monroe County Compared to 57 Peer US Counties

Cases	Bacteria	
	Reported	Expected
E.coli	1	0
Salmonella	56	69
Shigella	6	23

Source: <http://communityhealth.hhs.gov/>

- Environmental **bacterial contaminants** occur less frequently than might be predicted.

### PERCEIVED HEALTH NEEDS

Quantitative measures of both health outcomes and health factors are useful in assessing community needs, but monitoring community residents' thoughts about their health status and opportunities for improvement can reveal other areas of concern. Data that is gathered through surveys and interviews is subjective because it reflects the beliefs, attitudes, behaviors and cultural values of the community. It describes what is important to those who provide the information and is useful in prioritizing which health

needs should be addressed. Individual and group sessions included several approaches. It also is more contemporary than quantitative public health data due to delays, sometimes in excess of several years, in reporting.

### **Key Informant**

Information was collected from those community residents who, because of their professional training and/or affiliation with particular organizations, agencies, or associations, were in a prime position to know what the needs facing the community were likely to be.

- Individual community leader interviews between 10/25/11 and 12/06/11 included Frenchtown, Monroe and LaSalle township supervisors, a Monroe County commissioner, mayor of the City of Monroe, a community college president, a bank executive vice president, the county health department acting director, the Salvation Army commander, and the executive director of a federally qualified clinic.
- 14 individual physician interviews between 11/16/11 and 12/09/11
- Individual interview with the medical director Faithworks Medical, clinic for underinsured working, on 01/23/13
- Individual interview with executive director of the Family Medical Center of Michigan, a federally qualifies clinic, on 01/28/13
- Individual interview with the new Salvation Army commander on 01/28/13

### **Nominal Group Process**

The nominal group process is intended to maximize creative participation of group members. It is an idea generating strategy to gather individual's thoughts in a face-to-face non-threatening situation.

- 56 MMHS managers in small group interviews between 10/25/11 and 11/22/11.
- MMHS Board of Trustees 12//12 and Board Planning Committee 01/13 discussion with members representing a cross section of the community. Of 15 trustees there were 10 male and 5 female; 10 consumers and 5 providers
- Small group interview with the director of Monroe County Health Department and the department's community and public health preparedness director on 01/24/13
- Group discussion of the Building Healthy Communities Coalition 02//13. Organizations represented included the Monroe County Health Department, MMHS, the Community Foundation of Monroe County, the Monroe County Planning Department, the Substance Abuse Coalition, the Michigan State Police, Michigan State University Extension Service, the Monroe Parks and Recreation Department, the Monroe Center of Healthy Aging, the Frenchtown Senior Center, the Monroe County United Way, the Monroe Family YMCA, the Monroe Intermediate School District, the Arthur Lesow Community Center, the Monroe County Opportunity Program, and WMIM radio,

### **Public Forum**

A group discussion setting elicited information from a wide range of community residents concerning issues and community needs of the aging, who represent the greatest users of health care.

- Group discussion with 130 county residents over 60 years of age at the Area Agency on Aging 1-B Community Forum on needs of seniors 03/05/13

### Community Member Input

Need	Perceived Health Needs Source										Total	
	1	2	3	4	5	6	7	8	9	10		
<b>Health Outcomes</b>												
<b>Morbidity</b>												
Obesity				X		X	X	X	X			5
Diabetes				X		X			X			3
Hypertension				X								1
Stroke		X										1
Chronic Issues/Education	X					X	X	X				4
<b>Health Factors</b>												
<b>Behaviors</b>												
Nutrition		X		X	X			X	X	X		6
Teen Pregnancy								X				1
Substance Abuse							X	X				2
Sexually Transmitted Disease								X				1
Smoking Cessation				X			X		X			3
Exercise				X								1
<b>Clinical Care</b>												
Prevention/Education	X		X		X	X	X		X			6
Access to Physicians		X										1
Prenatal Care				X				X				2
Mental Health Services				X	X							2
Aging in Place Services						X		X				2
Dental Services	X			X						X		3
Genetic Testing		X										1
Pediatric Health Care							X					1
<b>Socioeconomic</b>												
Prescription Assistance	X		X		X							3
Free Clinic					X		X					2
<b>Environment</b>												
Transportation							X					1



The most frequently mentioned needs, from the point of view of community members, are: nutrition, prevention, obesity, and chronic health problems. Less pressing, but still important, are: diabetes, smoking, dental services and prescription assistance.

## **OBSERVATIONS FROM THE DATA**

Top 5 risk factors for premature deaths in Monroe County are:

- Few fruits/vegetables
- High blood pressure
- Obesity
- Smoking
- Lack of exercise

Top 5 Leading Causes of Death in Monroe County:

- Heart disease
- Cancer
- Chronic Respiratory disease
- Stroke
- Diabetes

Top community ranked priority areas of concern:

- Nutrition and Prevention
- Obesity
- Chronic Health Issues
- Diabetes, Smoking Cessation, Dental Services and Prescription Assistance

Half of US deaths are attributed to:

- Tobacco use at 19% of all deaths through heart disease, cancer and respiratory disease
- Diet & inactivity at 14% of all deaths through heart disease, cancer and diabetes
- Alcohol at 5% off all deaths through heart disease, cancers and injuries
- Microbial agents, toxins, firearms, motor vehicles and drugs together at 12% of all deaths

Determinants of health:

- Health behaviors 40%
- Genetics 30%
- Socioeconomic 15%
- Medical care 10%
- Environment 5%

Of 83 counties, Monroe ranks 38 in Health Outcomes (Morbidity, Mortality) and 43 in Health Factors (smoking, obesity, drinking, etc.)

Diabetes rate for Monroe County is 10.3% compared to the state average of 10.1%

Binge drinking for Monroe County is 22% compared to the state average of 18%

Physical inactivity rate for Monroe County is 28% compared to state average of 25%

Adult obesity rate for Monroe County is 35% compared to the state average of 32%

Mental health provider ratio for Monroe County is 12,739:1 versus state average of 2,853:1

Poor mental health days for Monroe County are 3.6 compared to state average of 3.7

Primary care physician ratio for Monroe County is 3,120:1 versus state average of 1,119:1

Motor vehicle crash death rate for Monroe County is 14 compared to state average of 13 per 100,000

Preventable hospital stay rate for Monroe County are 97 compared to state average of 74 per 100,000

Access to Healthy Foods for Monroe County 90% versus state average of 94%

Coronary heart disease rate for Monroe County 195.9 compared to US average of 154 per 100,000

Higher percentage of cardiovascular disease, heart disease hospitalization, and stroke hospitalizations in comparison to other Michigan counties

Controlled substance violations in Monroe County declined by 31.1% between 2006 and 2010, compared with the Michigan decline of 12.7%

## **COMMUNITY HEALTH NEEDS**

- **CHRONIC CONDITIONS- DIABETES, OBESITY, HUNGER**

Seven of the top 10 causes of death in Monroe County, as well as all of the ambulatory care sensitive hospitalizations, represent chronic conditions. There is a direct correlation between prevention and management of chronic diseases and access to care, and the ratio of population to primary care practitioners for Monroe County suggests coverage is well below average. There is limited availability of dental services for the uninsured and underinsured, with poor oral hygiene a risk factor for diabetes and heart disease.

Adult obesity in Monroe County is more prevalent than for the state or any neighboring county. Monroe County adults appear to be more sedentary than for the state in general and for two of the three neighboring counties. Monroe County's diabetes screening rate is unfavorable compared to the state and neighboring counties.

Monroe County's rates of death for cancer, stroke and diabetes exceed Michigan and US averages. Heart disease mortality rates for Michigan and Monroe County exceed the US rate. The Monroe County colon cancer rate is at the top of range for peer counties, and substantially higher than the US average and the Healthy People 2010 target.

The percent of Monroe County's low income population that doesn't live close to grocery stores is higher in Monroe County than surrounding counties and the state. Poor or improper nutrition is a risk factor in common for all of these outcomes.

- **SMOKING CESSATION AND TOBACCO USE**

Lung cancer is the leading cause of cancer death, and cigarette smoking causes almost all cases. Smoking also causes cancer of the larynx, throat, esophagus, bladder, kidney, pancreas, cervix and stomach, as well as acute myeloid leukemia. An estimated 90% of all deaths from chronic obstructive lung disease are caused by smoking

Smoking substantially increases the risk of developing coronary heart disease, peripheral vascular disease, abdominal aortic aneurism, infertility, stillbirth, loss of bone density, and hip fracture.

In 2011, 21.0% of adults and 13.2% of Monroe County's 11th grade students were current cigarette smokers.

- **MENTAL HEALTH SERVICES AND SUBSTANCE ABUSE**

Monroe County compares unfavorably for alcohol use with the state and two of the three neighboring counties. In 2011, 22.0% of adults and 23.6% of Monroe County's 11th grade students reported having five or more drinks within a couple of hours during the past 30 days.

Among the immediate risks of alcohol use are unintended injuries, violence, and alcohol poisoning. Long term health effects might be neurologic problems including dementia and stroke, myocardial infarction and hypertension, psychiatric problems including depression and anxiety, liver diseases, gastrointestinal conditions and cancers.

The MDCH Bureau of Substance Abuse and Addiction Services reported 594 admissions for substance abuse in the state's fiscal year 2012 and 720 in the previous year,

The average number of reported poor mental health days in the last 30 days for Monroe County exceeded the US average and the number for Lenawee and Washtenaw Counties. The ratio of population to mental health providers for Monroe County indicates coverage is well below average.

- **PREVENTION OF INJURIES**

In 2010, 12.5% of years potential life lost were attributed to accidents, behind only cancer and heart disease. Unintentional injuries was the 6th leading cause of death in Monroe County, but first for people age 1- 44 years.

Monroe County's motor vehicle crash death rate is greater than for Washtenaw and Wayne County.

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