

MICHIGAN DEPARTMENT OF PUBLIC HEALTH

***MICHIGAN
HEALTH STATISTICS***



1992

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**MICHIGAN
HEALTH STATISTICS**

1992

Office of the State Registrar and Division for Health Statistics

Michigan Department of Public Health
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Michigan Department of Public Health

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INTRODUCTION

The 1992 edition of Michigan Health Statistics is a statistical summary of vital events for calendar year 1992. Data relative to population, births, deaths, fetal deaths, marriages, divorces and communicable diseases are included. Although most of the data in this report pertain to events occurring in 1992, data for prior years have been included to illustrate trends. Most of the tabulations refer to Michigan residents. Some events, however, such as marriages and divorces are tabulated with respect to where the event occurred rather than the residence of the party or parties involved.

As a certain number of Michigan residents either deliver babies or die out of state each year, it is necessary to include data obtained from the certificates of other states in any tabulations pertaining to Michigan residents. This report includes all such out-of-state certificates received prior to April 30, 1993, and all in-state certificates and records received prior to March 15, 1993. Although a few additional records for the calendar year 1992 were received after these filing dates, their exclusion from this report is statistically insignificant.

This report is composed of county and state vital event profiles as well as the following sections and appendices:

1. County and State Health Statistics Profiles
2. Natality Section
3. Mortality Section
4. Marriage and Divorce Section
5. Reference Appendix

Comments or suggestions concerning the content and format of this report are always welcome. Any additional needs for data or analyses may be directed to the Office. The Office will make every attempt to comply with requests for data within the limitations of staff and resources.

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TECHNICAL NOTES, DEFINITIONS, RATES AND RATIOS

DEFINITIONS

ANCESTRY - National origin for mother, father or decedent is as stated on certificate. First collected in 1989. If more than one ancestry is reported, the first listed is used. If "American" is given with any other ancestry, the other ancestry is used.

BIRTH WEIGHT - Weight of fetus or infant at time of delivery.

FETAL DEATH - Death prior to the complete expulsion or extraction from its mother of a product of conception, having passed through at least the 20th week of gestation or weighing at least 400 grams; the fetus shows no signs of life such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles. (Note: This does not include induced terminations.)

FIRST BIRTH - A live birth where the maternal medical history indicates there were no prior live births to the mother.

GESTATIONAL PERIOD - Number of completed weeks elapsed between the first day of the last menstrual period and the date of delivery.

HEBDOMADAL DEATH - Deaths occurring to individuals less than 7 days of age.

INFANT DEATH - Deaths occurring to individuals less than 1 year of age.

INFANT DEATH/LIVE BIRTH MATCHED FILE COMPLETENESS RATIO - The number of matched records for infant deaths and

live births for deceased Michigan resident live births divided by the number of Michigan resident or presumed resident live births known to be deceased x 100.

INTERPREGNANCY TIME PERIOD - Birth date minus date of last termination, whether a live birth or fetal death, in months. Time periods of zero length are dropped to exclude 2nd or higher births of multiple deliveries.

KESSNER INDEX:

Adequate prenatal care is defined as care which began within the first trimester and which included an average of at least one or two additional prenatal visits per month of gestation, depending on the length of gestation.

Intermediate prenatal care is defined as care which began during the second trimester of the pregnancy with correspondingly fewer visits, or which began during the first trimester but with fewer visits than would be appropriate for the length of gestation.

Inadequate prenatal care is when no care was received or if care began during the third trimester. It is also inadequate if care began during the first or second trimester but less than five visits occurred, when the length of gestation was 34 weeks or more. When the length of gestation was less than 34 weeks, care is defined as inadequate when care began during the first or second trimester but a number of visits less than four occurred, that number depending on the actual weeks of gestation.

LEADING CAUSES OF DEATH - Deaths are grouped into 72 categories dependent upon the underlying cause of death. Ranks are assigned by organizing these categories according to the number of deaths in each category from most frequent to least.

LIFE EXPECTANCY - A hypothetical calculation of the average age at death for a cohort of persons subject to the age-specific mortality rates observed over a given time period.

LIFE TABLE VALUES:

nq_x = The proportion of persons in the cohort alive at the beginning of an age interval (x) who will die before reaching the end of that age interval ($x+n$).

l_x = The number of persons living at the beginning of an age interval (x) out of an original cohort of 100,000.

ndx = The number of persons who would die during an age interval (x to $x+n$) out of an original cohort of 100,000.

nL_x = The number of person-years that would be lived within an indicated age interval (x to $x+n$) out of an original cohort of 100,000 alive for all or part of the interval.

T_x = The number of person-years that would be lived after the beginning of an age interval (x) by an original cohort of 100,000 until all are assumed to have died.

e_x = The average remaining lifetime (in years) for an individual person who survives to the beginning of an indicated age interval (x).

LIVE BIRTH - A live birth is the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of pregnancy, which, after such separation, breathes or shows any other evidence of life, such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles. Effective on November 9, 1981, the definition of a live birth is established in administrative rule number 325.3201 as follows:

"Live birth" means the complete expulsion or extraction from a pregnant woman of a

product of human conception which, after such expulsion or extraction, shows any evidence of life, whether or not the umbilical cord has been cut or the placenta is attached.

LIVE-BIRTH ORDER - Order number is equal to number of previous live births plus current birth.

LOW-WEIGHT BIRTH - Births in 1984 or later wherein the birth weight is less than 2,500 grams (approximately 5 lbs., 8 oz.) or births before 1984 wherein the birth weight is 2,500 grams or less.

MATERNAL DEATHS - Those deaths wherein the physician has designated a maternal condition as the underlying cause of death (9th Revision ICD codes 630-676).

MEAN - The average of a set of values, equal to the sum of the values divided by the number of values.

MEDIAN - The central value of a distribution of values wherein the same percentage of observations are above this point as are below.

MINOR CIVIL DIVISION - City, village, or township.

NEONATAL DEATH - Deaths occurring to individuals less than 28 days of age.

OCCURRENCE - Place where the event actually occurred.

PERINATAL DEATH - Fetal deaths plus deaths to individuals less than 7 days of age.

POSTNEONATAL DEATH - Deaths occurring to individuals 28-364 days of age.

PROBABILITY OF EVENTUALLY DYING FROM A GIVEN CAUSE OF DEATH - The chance of death due to a given cause rather than some competitive cause over the course of a lifetime based on current mortality data and life expectancy techniques.

RACE - Race for mother, father, or decedent is as stated on certificate. Race of child is determined from the race of the parents.

REMAINING YEARS OF LIFE - A hypothetical calculation of the average number of years a cohort of persons will live given that they have reached a specific age and assuming they are subject to the age-specific mortality rates observed over a given time period.

RESIDENCE - Usual place of residence for the person to whom the event occurred. For births and fetal deaths, residence is defined as the mother's usual place of residence.

TOTAL BIRTHS - Live births plus fetal deaths.

UNDERLYING CAUSE OF DEATH - That condition giving rise to the chain of events leading to death.

VERY LOW-WEIGHT BIRTH - Births in 1984 or later wherein the birth weight is less than 1,500 grams (approximately 3 lbs., 4 oz.) or births before 1984 wherein the birth weight is 1,500 grams or less.

YEARS OF POTENTIAL LIFE LOST - The number of years between the age at death and 65 years of age for individuals dying before age 65.

RATES AND RATIOS

AGE-ADJUSTED DEATH RATE - A summary rate of death that is developed using a standard population distribution to improve the comparability of rates for areas or population subgroups with differing age distributions. When calculated by the direct method, as in this report, age-specific death rates for a geographic area or population subgroup are multiplied by the standard population by specific age and the products summed and divided by the total standard population. Age-adjusted death rates represent the mortality experience that would have occurred in a standard population had the age-specific rates of the area or population subgroup been experienced by the standard population. These rates are presented as per 100,000 population.

AGE-SPECIFIC BIRTH RATE - Number of resident live births to women of a specific age divided by total resident female population of specific age $\times 1,000$.

AGE-SPECIFIC DEATH RATE - Number of resident deaths in specific age group divided by total resident population in specific age group $\times 100,000$.

AGE-SPECIFIC DEATH RATE BY CAUSE OF DEATH - Number of resident deaths in specific age group and from a specific cause divided by total resident population in specific age group $\times 100,000$.

AGE-SPECIFIC MARRIAGE RATE - Number of occurrent marriages in specific age group by sex divided by total resident population in specific age and sex group $\times 1,000$.

CAUSE-SPECIFIC RATE - Number of resident deaths due to a specific cause divided by total resident population $\times 100,000$.

CONGENITAL ANOMALY RATE - Number of resident live births with a congenital malformation reported divided by the total number of resident live births $\times 10,000$.

COMMUNICABLE DISEASE CASE RATE - Number of reported cases (specific communicable diseases) divided by total resident population $\times 100,000$.

CRUDE BIRTH RATE - Number of resident live births divided by total resident population $\times 1,000$.

CRUDE DEATH RATE - Number of resident deaths divided by total resident population $\times 1,000$.

DIVORCE RATE - Number of persons with occurrent divorces and annulments divided by total resident population $\times 1,000$.

FERTILITY RATE - Number of resident live births divided by total resident female population ages 15-44 $\times 1,000$.

FETAL DEATH RATE - Number of resident fetal deaths divided by total resident live births plus resident fetal deaths $\times 1,000$.

FETAL DEATH RATIO - Number of resident fetal deaths divided by total resident live births $\times 1,000$.

FIRST MARRIAGE RATE - Number of occurrent marriages to persons not previously married by sex divided by total resident population by sex $\times 1,000$.

INFANT MORTALITY RATE - Number of resident infant deaths divided by total resident live births $\times 1,000$.

LOW-WEIGHT BIRTH RATIO - Number of resident low-weight births divided by total resident live births $\times 1,000$.

MARRIAGE RATE - Number of occurrent marriages by sex divided by total resident population by sex $\times 1,000$.

MATERNAL DEATH RATE - Number of resident maternal deaths divided by total resident live births $\times 100,000$.

NEONATAL DEATH RATE - Number of resident neonatal deaths divided by total resident live births $\times 1,000$.

NO PRENATAL CARE RATIO - Number of resident live births to mothers with no prenatal care divided by total resident live births $\times 1,000$.

PERINATAL DEATH RATE - Number of perinatal deaths divided by total resident live births plus resident fetal deaths $\times 1,000$.

POSTNEONATAL DEATH RATE - Number of resident postneonatal deaths divided by total resident live births $\times 1,000$.

RATE OF NATURAL INCREASE - (Total resident live births minus total resident deaths) divided by total resident population $\times 1,000$.

TOTAL FERTILITY RATE - Sum of (age-specific birth rates) \times (number of years in age group) for each age group from ages 10-14 through 45-49 years.

RELIABILITY OF RATES

Care should be taken in drawing specific inferences from comparisons of rates for different areas or different periods of time. Rates based on a small number of events or for a small area tend to exhibit considerable variation from time period to time period or place to place. Excessive variation in rates not only negates their utility as estimators of the probability of an event occurring but also their usefulness for comparative purposes.

Also, one should recognize the limitations of using unadjusted rates in attempting to attribute rate differences to particular factors.

For example, one should not attempt to state that there was a significant difference in rates for two geographic areas for atherosclerosis without first adjusting the rates to negate the effects of differing age distributions in the two areas.

Many times there are simply not sufficient data available to adequately adjust rates for all possible confounding factors. For this reason the reader should exercise diligence and caution while attempting to draw substantive conclusions when comparing vital statistics rates.

QUALIFICATIONS AND LIMITATIONS OF DATA AND CALCULATIONS

UNDERREGISTRATION OF EVENTS

The underregistration of vital events in Michigan is considered to be a minimal problem, particularly for births and deaths. Tests of registration completeness conducted in conjunction with the 1950 Census indicate that the registration of births was 98.5 percent complete, and that death registration was even more complete. The number of certificates received too late for inclusion in annual statistical files is insignificant when examining statewide patterns.

GEOGRAPHIC ALLOCATION

The allocation of events on a residence or occurrence basis is for the most part accurate and complete. However, allocations to minor civil divisions are subject to question in some instances. In those cases where the respondent completes the residence item with a mailing address, geographic allocation is sometimes undeterminable and the record receives an unknown minor civil division code.

FETAL DEATHS

Fetal deaths in Michigan include only those conceptions that have passed through 20 weeks gestation or that weigh 400 grams or more. Prior to the introduction of a new reporting form for fetal deaths on September 30, 1978, Michigan law required only the reporting of deaths of fetuses which had passed through 20 weeks gestation. Inadequacies in determining the gestational age of the fetus may have resulted in some under-

reporting of fetal deaths. The change in definition has had little impact on the number of fetal deaths reported.

COMPARABILITY IN CAUSE OF DEATH STATISTICS

The reader should bear in mind two major limitations in interpreting changes in cause-of-death statistics. Changes in nomenclature and the classification scheme (International Classification of Diseases) and changes in diagnostic practices may seriously affect the comparability of such statistics over time. The classification scheme (ICD) is modified approximately once every ten years to reflect changing medical opinion and practice. The reader is most accurate when comparing cause-of-death certificates which are coded via one revision of the International Classification of Diseases and utilizing the coding practices and procedures in effect at that time.

In order to compare cause-of-death statistics from one revision to the next it is necessary to apply a comparability ratio. Such ratios are developed by comparing the number of deaths assigned to a certain condition or group of conditions under one revision to the number assigned under another revision of the ICD.

In 1979 the 9th Revision of the International Classification of Diseases, WHO, was introduced for coding causes of death and was employed in categorizing the data for 1979 to date.

LIFE EXPECTANCY

The procedure used to obtain the Michigan life table values is called the iterative method. This is a method which has been developed by Felix Moore formerly of the Department of Biostatistics, School of Public Health, University of Michigan.

For the age group 0-1 the method utilizes the algorithm developed by Greville with no iteration. For all subsequent age groups the method of Greville (Keyfitz) is used with three iterations to improve the estimate of ndx and nxq . An iteration procedure is also used for nLx for age groups 75-80 and 80-85 where the accuracy of mortality information is a factor and for obtaining the separation factor for the age group 1-4.

AGE-ADJUSTMENT PROCEDURE AND POPULATION ESTIMATION

Population data for 1970, 1980 and 1990 were obtained from the April 1, 1970, April 1, 1980 and April 1, 1990 census counts. Data for 1980 and 1990 include revised census data as released by the Census Bureau. The population totals used for 1971-1979 are intercensal estimates prepared by the Census Bureau utilizing the revised 1980 census figures. The breakdowns of these totals by age, race, and sex were prepared by the Office of the State Registrar and Center for Health Statistics. For 1970 and 1980 the proportion of the total population in each age, race, and sex group was computed. Estimates of the proportion of the total population in each age, race, and sex group for the years 1971-1979 were then derived by interpolating between the proportions for 1970 and 1980. These subgroup proportions were then applied to the state totals to obtain population estimates by age, race, and sex for years 1971-1979.

Population estimates for 1985 through 1989 by age and sex were obtained by adding births, removing deaths and aging the remaining population, using Census Bureau-National Cancer Institute 1984 age, race and sex population estimates. Black and other race estimates for 1984 were prepared by projecting the mean annual change in the race proportions of each age-sex group of the non-white population observed between 1970 and 1980. Revised estimates of the proportion of the total population in each age, race and sex group for the years 1981-1983 were derived by interpolating between the populations for 1980 and 1984. Revised population data from the 1990 census were used to calculate the rates presented in this report.

The age-adjusted rates for Michigan presented in this report for years 1970-1992 were calculated using Michigan resident mortality data and the series of population data described above. Death records with the race not stated were first randomly allocated to the white and other than white groups based on the proportion of Michigan resident deaths in each of the racial categories for that year. Records with sex not stated were randomly assigned to male and female (50 percent each). Records with age not stated were allocated to the age group 85 and over.

In the age-adjustment procedure ten age groups were employed including under 1 year, 1-14 years, ten year age groups from 15-24 years to age 75-84, and 85 years and over. Age-specific rates for the total population and for each subgroup were applied to the same standard population distributed by age. The resulting expected deaths were then summed over the ten age groups and divided by the total of the standard population to obtain the age-adjusted rate. The standard population selected was the 1940 United

States enumerated population. Comparisons can be made between subgroup rates, between rates in different years, and between rates for Michigan and similarly computed rates for the United States.

UNITED STATES DEATH RATES

Death rates for the United States were taken from publications by the National Center for Health Statistics, U.S. Dept. of Health and Human Services. Rates for the United States shown in the series of tables of death rates for Michigan and the United States have been revised for 1971-1980 based on the 1980

census enumeration, as a result of the large difference between the 1980 census enumeration and the previously estimated population for 1980. The 1980 census enumeration was about 5.5 million higher than the estimated population for April 1, 1980.

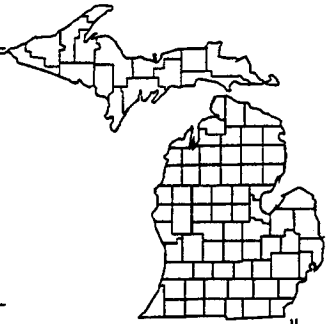
The estimated populations used for 1991 and 1992 provisional data are based on the 1990 census enumeration and therefore are comparable to those used for the 1990 and 1991 final data. Rates for 1981-1989 have been recomputed based on populations for those years that are consistent with the 1990 census levels.

COUNTY AND STATE HEALTH STATISTICS PROFILES

Profiles of county and state vital events statistics are presented in a one page summary form for each county and the state as a whole. The profiles contain those data most often requested of the Division for Health Statistics by health data users.

For further county or state information, please direct your inquiries to the address or phone number printed in the Introduction.

Profile of Michigan



POPULATION
 As of April 1, 1990: 9,295,297
 Rank Among Counties: -
 Per Square Mile: 163.2

NATALITY
 Total Live Births: 143,827
 Teenage Mothers: 18,714
 Low Weight Births: 10,829
 First Births: 56,283

MORTALITY
 Total Deaths: 78,916
 Infant Deaths: 1,460
 Neonatal Deaths: 962
 Postneonatal Deaths: 498
 Perinatal Deaths: 1,576
 Fetal Deaths: 755

MARRIAGE
 Marriages: 69,095
 Marriage Rate: 14.9

DIVORCE
 Divorces: 40,425
 Divorce Rate: 8.7

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	143,827	15.5	111,458	14.2	29,656	22.8	2,223	13.6
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	18,714	130.1	10,805	96.9	7,629	257.2	237	106.6
Low Weight	10,829	75.3	6,241	56.0	4,423	149.1	134	60.3
Under 1,500 Grams	2,198	15.3	1,138	10.2	1,025	34.6	28	12.6
< 38 Weeks Gestation	25,001	173.8	16,566	148.6	7,981	269.1	359	161.5
Prenatal Care Began in 1st Trimester	113,447	788.8	92,711	831.8	18,770	632.9	1,654	744.0

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	1,460	10.2	781	7.0	656	22.1	23	10.3
Neonatal Deaths	962	6.7	497	4.5	452	15.2	13	5.8
Postneonatal Deaths	498	3.5	284	2.5	204	6.9	10	4.5
Perinatal Deaths	1,576	10.9	952	8.5	576	19.3	32	14.3
Fetal Deaths	755	5.2	538	4.8	180	6.0	21	9.4

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	78,916	40,519	38,395	66,377	33,621	32,756	11,868	6,518	5,348	624	348	276	
Mortality Rate	8.5	9.0	8.0	8.5	8.8	8.2	9.1	10.7	7.7	3.8	4.3	3.3	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	1,460	256	167	189	537	761	807	2,454	3,740	5,965	13,709	48,867	4
White Male	450	107	70	99	246	358	357	1,151	1,677	2,793	6,758	19,554	1
White Female	331	51	46	41	108	108	145	519	914	1,858	4,569	24,064	2
Black Male	377	52	29	29	138	212	210	505	681	709	1,225	2,351	-
Black Female	277	39	19	18	39	66	77	249	400	519	1,013	2,631	1
Other Male	13	3	3	2	4	11	11	20	40	54	80	107	-
Other Female	10	3	-	-	2	5	2	8	27	27	60	132	-

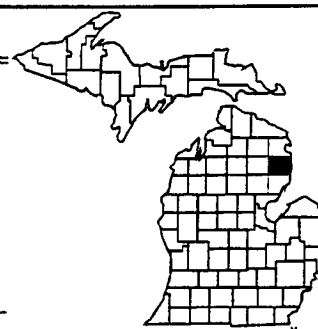
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	78,916	849.0	66,377	847.4	11,868	914.1	1,149	43.9
Diseases of the Heart	26,863	289.0	23,194	296.1	3,473	267.5	30	1.1
Malignant Neoplasms	19,217	206.7	16,452	210.0	2,615	201.4	101	3.9
Cerebrovascular Diseases	5,087	54.7	4,442	56.7	607	46.8	6	0.2
Accidents and Adverse Effects	2,844	30.6	2,370	30.3	424	32.7	464	17.7
Chronic Obstructive Pulmonary Diseases and Allied Conditions	3,076	33.1	2,798	35.7	257	19.8	10	0.4
Pneumonia and Influenza	2,697	29.0	2,367	30.2	316	24.3	15	0.6
Diabetes Mellitus	2,114	22.7	1,702	21.7	389	30.0	1	0.0
Chronic Liver Disease and Cirrhosis	947	10.2	710	9.1	220	16.9	2	0.1
Homicide	1,047	11.3	320	4.1	718	55.3	174	6.6
Suicide	1,063	11.4	945	12.1	105	8.1	84	3.2
Atherosclerosis	774	8.3	710	9.1	60	4.6	-	-
AIDS	573	6.2	298	3.8	272	20.9	4	0.2

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Alcona County



POPULATION

As of April 1, 1990: 10,145
 Rank Among Counties: 74
 Per Square Mile: 14.9

NATALITY

Total Live Births: 97
 Teenage Mothers: 16
 Low Weight Births: 9
 First Births: 36

MORTALITY

Total Deaths: 159
 Infant Deaths: -
 Neonatal Deaths: -
 Postneonatal Deaths: -
 Perinatal Deaths: 2
 Fetal Deaths: 2

MARRIAGE

Marriages: 87
 Marriage Rate: 17.2

DIVORCE

Divorces: 54
 Divorce Rate: 10.6

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	97	9.6	96	9.6	-	-	1	-
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	16	164.9	16	166.7	-	-	-	-
Low Weight	9	92.8	9	93.8	-	-	-	-
Under 1,500 Grams	-	-	-	-	-	-	-	-
< 38 Weeks Gestation	21	216.5	21	218.8	-	-	-	-
Prenatal Care Began in 1st Trimester	83	855.7	83	864.6	-	-	-	-

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	-	-	-	-	-	-	-	-
Neonatal Deaths	-	-	-	-	-	-	-	-
Postneonatal Deaths	-	-	-	-	-	-	-	-
Perinatal Deaths	2	-	2	-	-	-	-	-
Fetal Deaths	2	-	2	-	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	159	91	68	157	90	67	1	1	-	1	-	1	
Mortality Rate	15.7	18.0	13.3	15.6	18.1	13.3	-	-	-	-	-	-	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	-	-	-	-	-	2	-	4	6	6	26	115	-
White Male	-	-	-	-	-	2	-	4	3	3	16	62	-
White Female	-	-	-	-	-	-	-	-	-	-	10	51	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	1	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	1	-

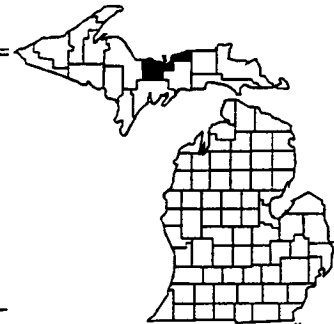
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	159	1,567.3	157	1564.4	1	-	-	-
Diseases of the Heart	46	453.4	45	448.4	-	-	-	-
Malignant Neoplasms	41	404.1	41	408.5	-	-	-	-
Cerebrovascular Diseases	13	128.1	13	129.5	-	-	-	-
Accidents and Adverse Effects	5	-	5	-	-	-	-	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	6	59.1	6	59.8	-	-	-	-
Pneumonia and Influenza	6	59.1	6	59.8	-	-	-	-
Diabetes Mellitus	4	-	4	-	-	-	-	-
Chronic Liver Disease and Cirrhosis	6	59.1	6	59.8	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	3	-	3	-	-	-	-	-
Atherosclerosis	4	-	4	-	-	-	-	-
AIDS	1	-	1	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Alger County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	8,972	Total Live Births:	94	Total Deaths:	118
Rank Among Counties:	75	Teenage Mothers:	10	Infant Deaths:	-
Per Square Mile:	9.8	Low Weight Births:	6	Neonatal Deaths:	-
		First Births:	27	Postneonatal Deaths:	-
				Perinatal Deaths:	-
				Fetal Deaths:	-
MARRIAGE		DIVORCE			
Marriages:	71	Divorces:	33		
Marriage Rate:	15.8	Divorce Rate:	7.4		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	94	10.5	91	10.8	-	-	3	-
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	10	106.4	10	109.9	-	-	-	-
Low Weight	6	63.8	6	65.9	-	-	-	-
Under 1,500 Grams	1	-	1	-	-	-	-	-
< 38 Weeks Gestation	12	127.7	11	120.9	-	-	1	-
Prenatal Care Began in 1st Trimester	71	755.3	69	758.2	-	-	2	-

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	-	-	-	-	-	-	-	-
Neonatal Deaths	-	-	-	-	-	-	-	-
Postneonatal Deaths	-	-	-	-	-	-	-	-
Perinatal Deaths	-	-	-	-	-	-	-	-
Fetal Deaths	-	-	-	-	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	118	61	57	116	59	57	-	-	-	2	2	-	
Mortality Rate	13.2	13.2	13.1	13.8	13.9	13.6	-	-	-	-	-	-	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	-	-	-	1	2	-	-	3	4	11	21	76	-
White Male	-	-	-	1	2	-	-	2	4	8	9	33	-
White Female	-	-	-	-	-	-	-	1	-	3	11	42	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	1	1	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

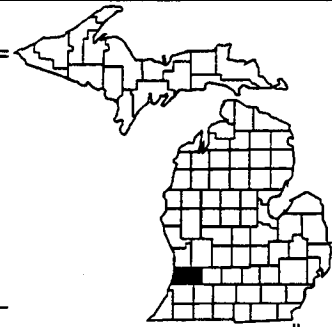
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	118	1,315.2	116	1,376.0	-	-	3	-
Diseases of the Heart	41	457.0	40	474.5	-	-	-	-
Malignant Neoplasms	24	267.5	23	272.8	-	-	-	-
Cerebrovascular Diseases	13	144.9	13	154.2	-	-	-	-
Accidents and Adverse Effects	4	-	4	-	-	-	2	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	4	-	4	-	-	-	-	-
Pneumonia and Influenza	5	-	5	-	-	-	-	-
Diabetes Mellitus	3	-	3	-	-	-	-	-
Chronic Liver Disease and Cirrhosis	3	-	3	-	-	-	-	-
Homicide	2	-	2	-	-	-	1	-
Suicide	2	-	2	-	-	-	-	-
Atherosclerosis	-	-	-	-	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Allegan County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	90,509	Total Live Births:	1,435	Total Deaths:	669
Rank Among Counties:	21	Teenage Mothers:	158	Infant Deaths:	7
Per Square Mile:	108.8	Low Weight Births:	70	Neonatal Deaths:	3
		First Births:	551	Postneonatal Deaths:	4
				Perinatal Deaths:	8
				Fetal Deaths:	6
MARRIAGE		DIVORCE			
Marriages:	713	Divorces:	426		
Marriage Rate:	15.8	Divorce Rate:	9.4		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	1,435	15.9	1,403	15.9	18	12.2	13	13.2
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	158	110.1	152	108.3	5	-	1	-
Low Weight	70	48.8	67	47.8	1	-	2	-
Under 1,500 Grams	11	7.7	11	7.8	-	-	-	-
< 38 Weeks Gestation	208	144.9	204	145.4	3	-	1	-
Prenatal Care Began in 1st Trimester	1,185	825.8	1,165	830.4	11	611.1	8	615.4

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	7	4.9	7	5.0	-	-	-	-
Neonatal Deaths	3	-	3	-	-	-	-	-
Postneonatal Deaths	4	-	4	-	-	-	-	-
Perinatal Deaths	8	5.6	8	5.7	-	-	-	-
Fetal Deaths	6	4.2	6	4.3	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	669	360	309	651	352	299	15	7	8	3	1	2	
Mortality Rate	7.4	8.0	6.8	7.4	8.1	6.7	10.2	8.1	13.2	-	-	-	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	7	2	4	1	3	3	6	23	27	39	113	440	1
White Male	5	1	2	1	2	3	5	13	20	28	71	201	-
White Female	2	1	2	-	1	-	1	9	7	11	36	228	1
Black Male	-	-	-	-	-	-	-	1	-	-	4	2	-
Black Female	-	-	-	-	-	-	-	-	-	-	1	7	-
Other Male	-	-	-	-	-	-	-	-	-	-	1	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	2	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	669	739.2	651	739.3	15	1,020.4	10	35.9
Diseases of the Heart	233	257.4	229	260.1	3	-	1	-
Malignant Neoplasms	158	174.6	153	173.8	5	-	2	-
Cerebrovascular Diseases	42	46.4	39	44.3	2	-	-	-
Accidents and Adverse Effects	30	33.1	30	34.1	-	-	5	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	32	35.4	31	35.2	-	-	-	-
Pneumonia and Influenza	24	26.5	24	27.3	-	-	-	-
Diabetes Mellitus	20	22.1	18	20.4	2	-	-	-
Chronic Liver Disease and Cirrhosis	8	8.8	8	9.1	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	12	13.3	12	13.6	-	-	-	-
Atherosclerosis	10	11.0	10	11.4	-	-	-	-
AIDS	1	-	1	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Alpena County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	30,605	Total Live Births:	382	Total Deaths:	298
Rank Among Counties:	46	Teenage Mothers:	45	Infant Deaths:	1
Per Square Mile:	53.9	Low Weight Births:	28	Neonatal Deaths:	-
		First Births:	144	Postneonatal Deaths:	1
				Perinatal Deaths:	-
				Fetal Deaths:	-
MARRIAGE		DIVORCE			
Marriages:	253	Divorces:	156		
Marriage Rate:	16.5	Divorce Rate:	10.2		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	382	12.5	376	12.4	-	-	6	33.7
Teenage Mothers	45	117.8	44	117.0	-	-	1	-
Low Weight	28	73.3	28	74.5	-	-	-	-
Under 1,500 Grams	1	*	1	*	-	-	-	-
< 38 Weeks Gestation	56	146.6	55	146.3	-	-	1	-
Prenatal Care Began in 1st Trimester	342	895.3	337	896.3	-	-	5	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	1	*	1	*	-	-	-	-
Neonatal Deaths	-	-	-	-	-	-	-	-
Postneonatal Deaths	1	*	1	*	-	-	-	-
Perinatal Deaths	-	-	-	-	-	-	-	-
Fetal Deaths	-	-	-	-	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	298	152	146	298	152	146	-	-	-	-	-	-	
Mortality Rate	9.7	10.2	9.3	9.8	10.3	9.3	-	-	-	-	-	-	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	1	-	-	-	1	3	2	1	9	17	57	207	-
White Male	1	-	-	-	-	2	1	-	7	11	34	96	-
White Female	-	-	-	-	1	1	1	1	2	6	23	111	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

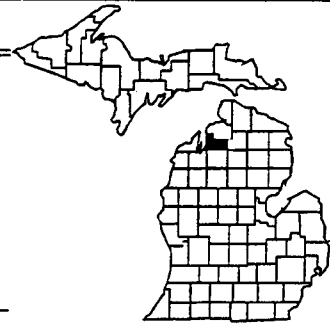
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	298	973.7	298	980.5	-	-	1	*
Diseases of the Heart	112	366.0	112	368.5	-	-	-	-
Malignant Neoplasms	89	290.8	89	292.8	-	-	1	*
Cerebrovascular Diseases	18	58.8	18	59.2	-	-	-	-
Accidents and Adverse Effects	7	22.9	7	23.0	-	-	-	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	9	29.4	9	29.6	-	-	-	-
Pneumonia and Influenza	7	22.9	7	23.0	-	-	-	-
Diabetes Mellitus	7	22.9	7	23.0	-	-	-	-
Chronic Liver Disease and Cirrhosis	5	*	5	*	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	5	*	5	*	-	-	-	-
Atherosclerosis	1	*	1	*	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Antrim County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	18,185	Total Live Births:	262	Total Deaths:	223
Rank Among Counties:	62	Teenage Mothers:	35	Infant Deaths:	3
Per Square Mile:	37.9	Low Weight Births:	15	Neonatal Deaths:	-
		First Births:	106	Postneonatal Deaths:	3
				Perinatal Deaths:	-
				Fetal Deaths:	-
MARRIAGE		DIVORCE			
Marriages:	176	Divorces:	95		
Marriage Rate:	19.4	Divorce Rate:	10.4		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	262	14.4	254	14.2	-	-	5	-
	Total		White		Black		Other	
Teenage Mothers	35	133.6	32	126.0	-	-	2	-
Low Weight	15	57.3	15	59.1	-	-	-	-
Under 1,500 Grams	2	-	2	-	-	-	-	-
< 38 Weeks Gestation	27	103.1	27	106.3	-	-	-	-
Prenatal Care Began in 1st Trimester	175	667.9	169	665.4	-	-	4	-

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	3	-	3	-	-	-	-	-
Neonatal Deaths	-	-	-	-	-	-	-	-
Postneonatal Deaths	3	-	3	-	-	-	-	-
Perinatal Deaths	-	-	-	-	-	-	-	-
Fetal Deaths	-	-	-	-	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	223	115	108	222	115	107	-	-	-	1	-	1	
Mortality Rate	12.3	12.9	11.6	12.4	13.1	11.7	-	-	-	-	-	-	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	3	-	-	1	2	2	2	7	8	20	34	144	-
White Male	3	-	-	1	1	2	1	6	3	10	17	71	-
White Female	-	-	-	-	1	-	1	1	5	10	17	72	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	1	-

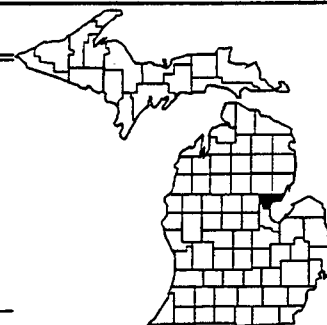
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	223	1,226.3	222	1,238.4	-	-	3	-
Diseases of the Heart	73	401.4	72	401.7	-	-	-	-
Malignant Neoplasms	55	302.4	55	306.8	-	-	-	-
Cerebrovascular Diseases	15	82.5	15	83.7	-	-	-	-
Accidents and Adverse Effects	13	71.5	13	72.5	-	-	3	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	8	44.0	8	44.6	-	-	-	-
Pneumonia and Influenza	15	82.5	15	83.7	-	-	-	-
Diabetes Mellitus	4	-	4	-	-	-	-	-
Chronic Liver Disease and Cirrhosis	1	-	1	-	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	2	-	2	-	-	-	-	-
Atherosclerosis	5	-	5	-	-	-	-	-
AIDS	1	-	1	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Arenac County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	14,931	Total Live Births:	183	Total Deaths:	176
Rank Among Counties:	66	Teenage Mothers:	28	Infant Deaths:	-
Per Square Mile:	40.6	Low Weight Births:	5	Neonatal Deaths:	-
		First Births:	61	Postneonatal Deaths:	-
				Perinatal Deaths:	1
				Fetal Deaths:	1
MARRIAGE		DIVORCE			
Marriages:	118	Divorces:	54		
Marriage Rate:	15.8	Divorce Rate:	7.2		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	183	12.3	180	12.2	-	-	1	-
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	28	153.0	28	155.6	-	-	-	-
Low Weight	5	-	5	-	-	-	-	-
Under 1,500 Grams	-	-	-	-	-	-	-	-
< 38 Weeks Gestation	19	103.8	18	100.0	-	-	-	-
Prenatal Care Began in 1st Trimester	146	797.8	144	800.0	-	-	-	-

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	-	-	-	-	-	-	-	-
Neonatal Deaths	-	-	-	-	-	-	-	-
Postneonatal Deaths	-	-	-	-	-	-	-	-
Perinatal Deaths	1	-	1	-	-	-	-	-
Fetal Deaths	1	-	1	-	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	176	95	81	176	95	81	-	-	-	-	-	-	
Mortality Rate	11.8	13.0	10.6	11.9	13.2	10.8	-	-	-	-	-	-	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	-	2	-	1	1	-	2	4	7	14	32	113	-
White Male	-	1	-	1	1	-	-	4	3	10	13	62	-
White Female	-	1	-	-	-	-	2	-	4	4	19	51	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

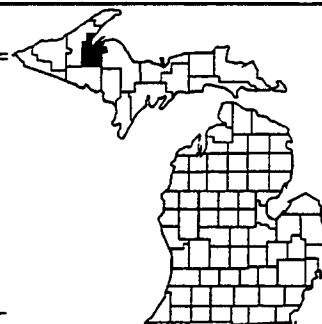
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	176	1,178.8	176	1,193.8	-	-	4	-
Diseases of the Heart	69	462.1	69	468.0	-	-	1	-
Malignant Neoplasms	43	288.0	43	291.7	-	-	-	-
Cerebrovascular Diseases	8	53.6	8	54.3	-	-	-	-
Accidents and Adverse Effects	5	-	5	-	-	-	1	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	9	60.3	9	61.0	-	-	-	-
Pneumonia and Influenza	5	-	5	-	-	-	-	-
Diabetes Mellitus	4	-	4	-	-	-	-	-
Chronic Liver Disease and Cirrhosis	1	-	1	-	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	1	-	1	-	-	-	1	-
Atherosclerosis	1	-	1	-	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Baraga County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	7,954	Total Live Births:	129	Total Deaths:	95
Rank Among Counties:	80	Teenage Mothers:	11	Infant Deaths:	1
Per Square Mile:	8.8	Low Weight Births:	9	Neonatal Deaths:	-
		First Births:	51	Postneonatal Deaths:	1
				Perinatal Deaths:	-
				Fetal Deaths:	-
MARRIAGE		DIVORCE			
Marriages:	57	Divorces:	34		
Marriage Rate:	14.3	Divorce Rate:	8.5		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	129	16.2	104	14.9	-	-	24	25.8
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	11	85.3	8	76.9	-	-	3	.
Low Weight	9	69.8	7	67.3	-	-	2	.
Under 1,500 Grams	2	.	1	.	-	-	1	.
< 38 Weeks Gestation	18	139.5	12	115.4	-	-	5	.
Prenatal Care Began in 1st Trimester	97	751.9	81	778.8	-	-	15	625.0

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	1	.	1	.	-	-	-	-
Neonatal Deaths	-	-	-	-	-	-	-	-
Postneonatal Deaths	1	.	1	.	-	-	-	-
Perinatal Deaths	-	-	-	-	-	-	-	-
Fetal Deaths	-	-	-	-	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	95	46	49	89	44	45	-	-	-	6	2	4	
Mortality Rate	11.9	11.5	12.4	12.8	12.5	13.0	-	-	-	6.5	.	.	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	1	-	-	-	-	2	1	2	6	2	16	65	-
White Male	-	-	-	-	-	1	-	1	5	1	10	26	-
White Female	1	-	-	-	-	-	1	1	-	1	4	37	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	1	-	-	-	-	1	-	-
Other Female	-	-	-	-	-	-	-	-	1	-	1	2	-

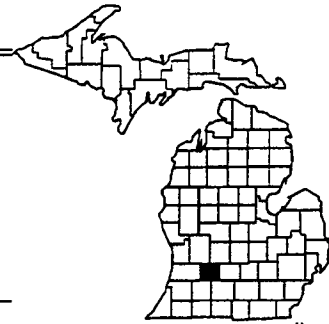
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	95	1,194.4	89	1,276.0	-	-	-	-
Diseases of the Heart	39	490.3	36	516.1	-	-	-	-
Malignant Neoplasms	20	251.4	20	286.7	-	-	-	-
Cerebrovascular Diseases	7	88.0	6	86.0	-	-	-	-
Accidents and Adverse Effects	4	.	3	.	-	-	-	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	2	.	2	.	-	-	-	-
Pneumonia and Influenza	5	.	5	.	-	-	-	-
Diabetes Mellitus	1	.	1	.	-	-	-	-
Chronic Liver Disease and Cirrhosis	2	.	2	.	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	1	.	1	.	-	-	-	-
Atherosclerosis	-	-	-	-	-	-	-	-
AIDS	1	.	1	.	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Barry County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	50,057	Total Live Births:	706	Total Deaths:	381
Rank Among Counties:	34	Teenage Mothers:	67	Infant Deaths:	6
Per Square Mile:	89.4	Low Weight Births:	42	Neonatal Deaths:	1
		First Births:	268	Postneonatal Deaths:	5
				Perinatal Deaths:	4
				Fetal Deaths:	4
MARRIAGE		DIVORCE			
Marriages:	402	Divorces:	257		
Marriage Rate:	16.1	Divorce Rate:	10.3		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	706	14.1	700	14.1	1	.	5	.
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	67	94.9	66	94.3	-	-	1	-
Low Weight	42	59.5	42	60.0	-	-	-	-
Under 1,500 Grams	5	.	5	.	-	-	-	-
< 38 Weeks Gestation	107	151.6	106	151.4	-	-	1	.
Prenatal Care Began in 1st Trimester	595	842.8	589	841.4	1	.	5	.

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	6	8.5	6	8.6	-	-	-	-
Neonatal Deaths	1	.	1	.	-	-	-	-
Postneonatal Deaths	5	.	5	.	-	-	-	-
Perinatal Deaths	4	.	3	.	1	.	-	-
Fetal Deaths	4	.	3	.	1	.	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	381	203	178	377	201	176	1	-	1	2	1	1	
Mortality Rate	7.6	8.1	7.1	7.6	8.1	7.1	.	-	.	.	.	.
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	6	-	-	-	3	5	2	9	17	33	57	249	-
White Male	5	-	-	-	2	4	2	5	12	15	39	117	-
White Female	1	-	-	-	1	1	-	4	4	18	18	129	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	1	-
Other Male	-	-	-	-	-	-	-	1	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	1	-

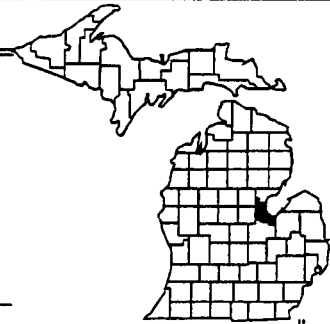
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	381	761.1	377	759.8	1	.	3	.
Diseases of the Heart	126	251.7	126	254.0	-	-	-	-
Malignant Neoplasms	91	181.8	90	181.4	-	-	-	-
Cerebrovascular Diseases	25	49.9	25	50.4	-	-	-	-
Accidents and Adverse Effects	18	36.0	17	34.3	-	-	2	.
Chronic Obstructive Pulmonary Diseases and Allied Conditions	13	26.0	13	26.2	-	-	-	-
Pneumonia and Influenza	16	32.0	16	32.2	-	-	-	-
Diabetes Mellitus	13	26.0	13	26.2	-	-	-	-
Chronic Liver Disease and Cirrhosis	4	.	4	.	-	-	-	-
Homicide	3	.	3	.	-	-	-	-
Suicide	7	14.0	7	14.1	-	-	1	.
Atherosclerosis	3	.	3	.	-	-	-	-
AIDS	1	.	1	.	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Bay County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	111,723	Total Live Births:	1,576	Total Deaths:	1,012
Rank Among Counties:	18	Teenage Mothers:	228	Infant Deaths:	18
Per Square Mile:	249.8	Low Weight Births:	104	Neonatal Deaths:	11
		First Births:	670	Postneonatal Deaths:	7
				Perinatal Deaths:	17
				Fetal Deaths:	7
MARRIAGE		DIVORCE			
Marriages:	903	Divorces:	464		
Marriage Rate:	16.2	Divorce Rate:	8.3		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	1,576	14.1	1,534	14.0	34	27.1	7	5.6
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	228	144.7	215	140.2	12	352.9	1	.
Low Weight	104	66.0	98	63.9	5	.	1	.
Under 1,500 Grams	21	13.3	20	13.0	1	.	-	.
< 38 Weeks Gestation	258	163.7	247	161.0	8	235.3	3	.
Prenatal Care Began in 1st Trimester	1,366	866.8	1,333	869.0	28	823.5	5	.

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	18	11.4	17	11.1	1	.	-	-
Neonatal Deaths	11	7.0	11	7.2	-	-	-	-
Postneonatal Deaths	7	4.4	6	3.9	1	.	-	-
Perinatal Deaths	17	10.7	17	11.0	-	-	-	-
Fetal Deaths	7	4.4	7	4.5	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	1,012	532	480	994	526	468	12	5	7	6	1	5	
Mortality Rate	9.1	9.8	8.3	9.1	10.0	8.3	9.6	.	11.9	4.8	.	.	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	18	7	2	2	9	7	7	22	36	71	167	664	-
White Male	10	6	1	2	6	6	5	15	24	49	107	295	-
White Female	7	1	-	-	3	1	2	5	9	20	57	363	-
Black Male	1	-	-	-	-	-	-	2	-	-	1	1	-
Black Female	-	-	1	-	-	-	-	1	-	-	1	4	-
Other Male	-	-	-	-	-	-	-	1	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	1	2	1	1	-	-

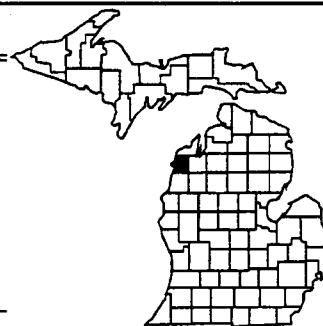
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	1,012	905.8	994	910.0	12	956.2	20	64.5
Diseases of the Heart	379	339.2	375	343.3	2	.	-	-
Malignant Neoplasms	250	223.8	245	224.3	4	.	1	.
Cerebrovascular Diseases	49	43.9	47	43.0	1	.	-	-
Accidents and Adverse Effects	54	48.3	51	46.7	2	.	11	35.5
Chronic Obstructive Pulmonary Diseases and Allied Conditions	41	36.7	41	37.5	-	-	-	-
Pneumonia and Influenza	19	17.0	19	17.4	-	-	-	-
Diabetes Mellitus	36	32.2	35	32.0	1	.	-	-
Chronic Liver Disease and Cirrhosis	15	13.4	15	13.7	-	-	-	-
Homicide	6	5.4	6	5.5	-	-	2	.
Suicide	13	11.6	13	11.9	-	-	1	.
Atherosclerosis	17	15.2	17	15.6	-	-	-	-
AIDS	4	.	4	.	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Benzie County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	12,200	Total Live Births:	178	Total Deaths:	114
Rank Among Counties:	71	Teenage Mothers:	22	Infant Deaths:	2
Per Square Mile:	37.9	Low Weight Births:	10	Neonatal Deaths:	-
		First Births:	77	Postneonatal Deaths:	2
				Perinatal Deaths:	-
				Fetal Deaths:	-
MARRIAGE		DIVORCE			
Marriages:	135	Divorces:	51		
Marriage Rate:	22.1	Divorce Rate:	8.4		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	178	14.6	171	14.4	1	*	6	22.0
Teenage Mothers	22	123.6	21	122.8	-	-	1	*
Low Weight	10	56.2	10	58.5	-	-	-	-
Under 1,500 Grams	-	-	-	-	-	-	-	-
< 38 Weeks Gestation	24	134.8	22	128.7	-	-	2	*
Prenatal Care Began in 1st Trimester	111	623.6	106	619.9	1	*	4	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	2	*	2	*	-	-	-	-
Neonatal Deaths	-	-	-	-	-	-	-	-
Postneonatal Deaths	2	*	2	*	-	-	-	-
Perinatal Deaths	-	-	-	-	-	-	-	-
Fetal Deaths	-	-	-	-	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	114	65	49	111	63	48	-	-	-	3	2	1	
Mortality Rate	9.3	10.8	7.9	9.3	10.8	8.0	-	-	-	*	*	*	
	Age in Years												
Total Deaths	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
White Male	1	-	-	-	1	-	-	3	-	5	14	39	-
White Female	1	-	-	-	-	-	-	3	2	-	7	35	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	1	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	1	-	-

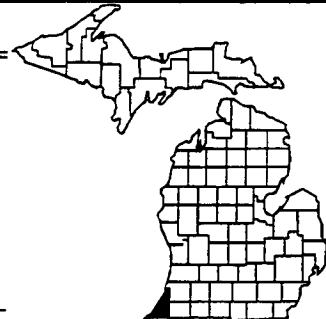
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	114	934.4	111	933.1	-	-	1	*
Diseases of the Heart	31	254.1	30	252.2	-	-	-	-
Malignant Neoplasms	39	319.7	38	319.4	-	-	1	*
Cerebrovascular Diseases	9	73.8	9	75.7	-	-	-	-
Accidents and Adverse Effects	3	*	3	*	-	-	-	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	5	*	5	*	-	-	-	-
Pneumonia and Influenza	3	*	3	*	-	-	-	-
Diabetes Mellitus	2	*	2	*	-	-	-	-
Chronic Liver Disease and Cirrhosis	1	*	1	*	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	2	*	2	*	-	-	-	-
Atherosclerosis	-	-	-	-	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Berrien County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	161,378	Total Live Births:	2,477	Total Deaths:	1,449
Rank Among Counties:	11	Teenage Mothers:	480	Infant Deaths:	26
Per Square Mile:	280.1	Low Weight Births:	206	Neonatal Deaths:	12
		First Births:	975	Postneonatal Deaths:	14
				Perinatal Deaths:	29
				Fetal Deaths:	19
MARRIAGE		DIVORCE			
Marriages:	1,389	Divorces:	747		
Marriage Rate:	17.2	Divorce Rate:	9.3		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	2,477	15.3	1,710	12.7	730	29.2	29	13.2
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	480	193.8	220	128.7	257	352.1	2	-
Low Weight	206	83.2	91	53.2	112	153.4	2	-
Under 1,500 Grams	33	13.3	17	9.9	16	21.9	-	-
< 38 Weeks Gestation	434	175.2	239	139.8	186	254.8	7	241.4
Prenatal Care Began in 1st Trimester	1,661	670.6	1,288	753.2	349	478.1	23	793.1

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	26	10.5	11	6.4	15	20.5	-	-
Neonatal Deaths	12	4.8	5	-	7	9.6	-	-
Postneonatal Deaths	14	5.7	6	3.5	8	11.0	-	-
Perinatal Deaths	29	11.6	13	7.6	14	19.0	2	-
Fetal Deaths	19	7.6	9	5.2	8	10.8	2	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	1,449	709	740	1,224	596	628	217	109	108	8	4	4	
Mortality Rate	9.0	9.2	8.8	9.1	9.2	9.1	8.7	9.7	7.9	3.6	-	-	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	26	2	5	3	7	10	13	47	54	106	255	921	-
White Male	-	1	2	2	4	4	4	18	26	41	124	370	-
White Female	11	1	-	1	-	2	3	8	18	40	83	461	-
Black Male	9	-	1	-	2	3	3	14	5	14	19	39	-
Black Female	6	-	2	-	1	1	3	7	4	11	26	47	-
Other Male	-	-	-	-	-	-	-	-	1	-	1	2	-
Other Female	-	-	-	-	-	-	-	-	-	-	2	2	-

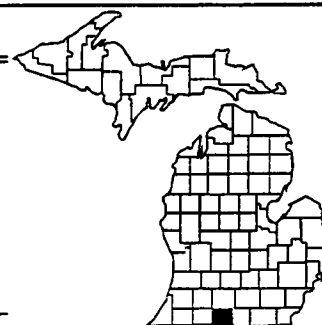
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	1,449	897.9	1,224	912.1	217	868.5	17	36.9
Diseases of the Heart	462	286.3	408	304.0	54	216.1	-	-
Malignant Neoplasms	379	234.9	318	237.0	55	220.1	2	-
Cerebrovascular Diseases	115	71.3	94	70.0	21	84.1	-	-
Accidents and Adverse Effects	46	28.5	35	26.1	11	44.0	6	13.0
Chronic Obstructive Pulmonary Diseases and Allied Conditions	52	32.2	48	35.8	3	-	-	-
Pneumonia and Influenza	51	31.6	46	34.3	5	-	2	-
Diabetes Mellitus	35	21.7	30	22.4	5	-	-	-
Chronic Liver Disease and Cirrhosis	12	7.4	7	5.2	5	-	-	-
Homicide	16	9.9	7	5.2	9	36.0	2	-
Suicide	13	8.1	11	8.2	2	-	2	-
Atherosclerosis	23	14.3	19	14.2	4	-	-	-
AIDS	3	-	1	-	2	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Branch County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	41,502	Total Live Births:	539	Total Deaths:	385
Rank Among Counties:	37	Teenage Mothers:	76	Infant Deaths:	5
Per Square Mile:	81.7	Low Weight Births:	34	Neonatal Deaths:	4
		First Births:	197	Postneonatal Deaths:	1
				Perinatal Deaths:	9
				Fetal Deaths:	6
MARRIAGE		DIVORCE			
Marriages:	329	Divorces:	228		
Marriage Rate:	15.9	Divorce Rate:	11.0		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	539	13.0	533	13.2	1	.	5	.
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	76	141.0	75	140.7	-	-	1	.
Low Weight	34	63.1	34	63.8	-	-	-	-
Under 1,500 Grams	8	14.8	8	15.0	-	-	-	-
< 38 Weeks Gestation	66	122.4	64	120.1	1	.	1	.
Prenatal Care Began in 1st Trimester	356	660.5	352	660.4	1	.	3	.

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	5	.	5	.	-	-	-	-
Neonatal Deaths	4	.	4	.	-	-	-	-
Postneonatal Deaths	1	.	1	.	-	-	-	-
Perinatal Deaths	9	16.5	9	16.7	-	-	-	-
Fetal Deaths	6	11.0	6	11.1	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	385	213	172	382	211	171	1	1	-	2	1	1	
Mortality Rate	9.3	10.5	8.1	9.5	10.6	8.3	.	.	-	.	.	.	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	5	3	-	2	2	1	3	8	14	44	62	241	-
White Male	2	2	-	2	2	1	2	6	6	26	45	117	-
White Female	3	1	-	-	-	-	1	2	8	15	17	124	-
Black Male	-	-	-	-	-	-	-	-	-	1	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	1	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	1	-	-	-

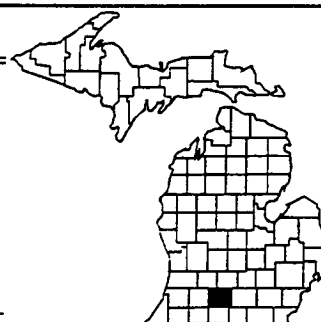
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	385	927.7	382	945.2	1	.	7	58.1
Diseases of the Heart	123	296.4	121	299.4	1	.	-	-
Malignant Neoplasms	102	245.8	101	249.9	-	-	1	.
Cerebrovascular Diseases	23	55.4	23	56.9	-	-	-	-
Accidents and Adverse Effects	20	48.2	20	49.5	-	-	5	.
Chronic Obstructive Pulmonary Diseases and Allied Conditions	18	43.4	18	44.5	-	-	-	-
Pneumonia and Influenza	11	26.5	11	27.2	-	-	-	-
Diabetes Mellitus	16	38.6	16	39.6	-	-	-	-
Chronic Liver Disease and Cirrhosis	6	14.5	6	14.8	-	-	-	-
Homicide	1	.	1	.	-	-	-	-
Suicide	5	.	5	.	-	-	1	.
Atherosclerosis	1	.	1	.	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Calhoun County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	135,982	Total Live Births:	2,075	Total Deaths:	1,377
Rank Among Counties:	15	Teenage Mothers:	395	Infant Deaths:	19
Per Square Mile:	191.1	Low Weight Births:	158	Neonatal Deaths:	7
		First Births:	837	Postneonatal Deaths:	12
				Perinatal Deaths:	18
				Fetal Deaths:	12
MARRIAGE		DIVORCE			
Marriages:	1,250	Divorces:	677		
Marriage Rate:	18.4	Divorce Rate:	10.0		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	2,075	15.3	1,701	14.2	354	24.5	19	10.6
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	395	190.4	274	161.1	118	333.3	3	.
Low Weight	158	76.1	106	62.3	52	146.9	-	-
Under 1,500 Grams	25	12.0	19	11.2	6	16.9	-	-
< 38 Weeks Gestation	358	172.5	258	151.7	98	276.8	2	.
Prenatal Care Began in 1st Trimester	1,572	757.6	1,343	789.5	211	596.0	17	894.7

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	19	9.2	14	8.2	5	.	-	-
Neonatal Deaths	7	3.4	4	.	3	.	-	-
Postneonatal Deaths	12	5.8	10	5.9	2	.	-	-
Perinatal Deaths	18	8.6	12	7.0	6	16.8	-	-
Fetal Deaths	12	5.7	8	4.7	4	.	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	1,377	725	652	1,238	641	597	126	76	50	7	3	4	
Mortality Rate	10.1	11.0	9.3	10.3	11.1	9.7	8.7	11.0	6.6	3.9	.	.	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	19	7	4	2	6	9	11	35	52	105	256	871	-
White Male	9	3	3	1	4	8	3	16	30	59	149	356	-
White Female	5	1	1	-	-	1	3	12	13	35	85	441	-
Black Male	4	2	-	1	2	-	2	5	7	8	9	36	-
Black Female	1	1	-	-	-	-	1	-	-	2	12	33	-
Other Male	-	-	-	-	-	-	-	-	1	1	-	1	-
Other Female	-	-	-	-	-	-	-	-	1	-	1	2	-

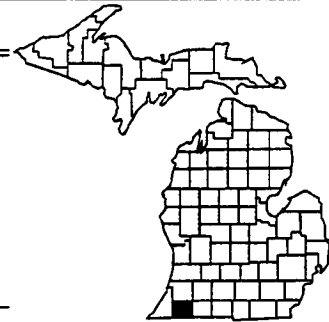
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	1,377	1,012.6	1,238	1,034.1	126	870.3	19	49.4
Diseases of the Heart	431	317.0	385	321.6	45	310.8	-	-
Malignant Neoplasms	320	235.3	293	244.8	25	172.7	2	.
Cerebrovascular Diseases	105	77.2	99	82.7	5	.	-	-
Accidents and Adverse Effects	55	40.4	50	41.8	5	.	8	20.8
Chronic Obstructive Pulmonary Diseases and Allied Conditions	67	49.3	61	51.0	6	41.4	1	.
Pneumonia and Influenza	64	47.1	62	51.8	2	.	-	-
Diabetes Mellitus	39	28.7	31	25.9	8	55.3	-	-
Chronic Liver Disease and Cirrhosis	12	8.8	11	9.2	1	.	-	-
Homicide	10	7.4	8	6.7	2	.	1	.
Suicide	19	14.0	19	15.9	-	-	1	.
Atherosclerosis	24	17.6	21	17.5	3	.	-	-
AIDS	8	5.9	4	.	3	.	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Cass County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	49,477	Total Live Births:	541	Total Deaths:	453
Rank Among Counties:	35	Teenage Mothers:	113	Infant Deaths:	6
Per Square Mile:	99.7	Low Weight Births:	34	Neonatal Deaths:	1
		First Births:	232	Postneonatal Deaths:	5
				Perinatal Deaths:	3
				Fetal Deaths:	3
MARRIAGE		DIVORCE			
Marriages:	367	Divorces:	265		
Marriage Rate:	14.8	Divorce Rate:	10.7		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	541	10.9	468	10.4	69	18.4	3	.
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	113	208.9	97	207.3	15	217.4	1	.
Low Weight	34	62.8	25	53.4	9	130.4	-	-
Under 1,500 Grams	6	11.1	6	12.8	-	-	-	-
< 38 Weeks Gestation	85	157.1	65	138.9	18	260.9	2	.
Prenatal Care Began in 1st Trimester	341	630.3	309	660.3	30	434.8	2	.

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	6	11.1	5	.	1	.	-	-
Neonatal Deaths	1	.	1	.	-	-	-	-
Postneonatal Deaths	5	.	4	.	1	.	-	-
Perinatal Deaths	3	.	2	.	1	.	-	-
Fetal Deaths	3	.	2	.	1	.	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	453	236	217	406	210	196	41	22	19	6	4	2	
Mortality Rate	9.2	9.7	8.6	9.0	9.5	8.6	10.9	12.4	9.6	9.0	.	.	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	6	4	2	4	4	5	3	16	15	28	86	280	-
White Male	5	2	-	3	1	3	1	10	8	13	51	113	-
White Female	-	-	2	1	2	1	1	5	4	12	27	141	-
Black Male	1	1	-	-	-	-	-	1	2	1	2	14	-
Black Female	-	1	-	-	1	1	-	-	1	1	5	9	-
Other Male	-	-	-	-	-	-	1	-	-	1	1	1	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	2	-

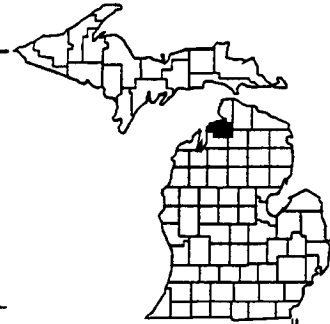
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	453	915.6	406	901.0	41	1,092.8	14	98.9
Diseases of the Heart	160	323.4	143	317.4	14	373.1	1	.
Malignant Neoplasms	106	214.2	93	206.4	12	319.8	2	.
Cerebrovascular Diseases	37	74.8	34	75.5	2	.	-	-
Accidents and Adverse Effects	32	64.7	25	55.5	6	159.9	7	49.4
Chronic Obstructive Pulmonary Diseases and Allied Conditions	20	40.4	19	42.2	1	.	-	-
Pneumonia and Influenza	19	38.4	18	39.9	1	.	-	-
Diabetes Mellitus	11	22.2	10	22.2	1	.	-	-
Chronic Liver Disease and Cirrhosis	4	.	4	.	-	-	-	-
Homicide	4	.	2	.	2	.	-	-
Suicide	3	.	3	.	-	-	-	-
Atherosclerosis	3	.	3	.	-	-	-	-
AIDS	1	.	1	.	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Charlevoix County



POPULATION

As of April 1, 1990: 21,468
 Rank Among Counties: 56
 Per Square Mile: 51.0

NATALITY

Total Live Births: 284
 Teenage Mothers: 36
 Low Weight Births: 13
 First Births: 111

MORTALITY

Total Deaths: 212
 Infant Deaths: 2
 Neonatal Deaths: 2
 Postneonatal Deaths: -
 Perinatal Deaths: 5
 Fetal Deaths: 4

MARRIAGE

Marriages: 234
 Marriage Rate: 21.8

DIVORCE

Divorces: 110
 Divorce Rate: 10.2

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	284	13.2	277	13.2	-	-	7	16.7
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	36	126.8	34	122.7	-	-	2	-
Low Weight	13	45.8	13	46.9	-	-	-	-
Under 1,500 Grams	4	-	4	-	-	-	-	-
< 38 Weeks Gestation	41	144.4	39	140.8	-	-	2	-
Prenatal Care Began in 1st Trimester	227	799.3	223	805.1	-	-	4	-

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	2	-	2	-	-	-	-	-
Neonatal Deaths	2	-	2	-	-	-	-	-
Postneonatal Deaths	-	-	-	-	-	-	-	-
Perinatal Deaths	5	-	5	-	-	-	-	-
Fetal Deaths	4	-	4	-	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	212	112	100	205	106	99	1	1	-	6	5	1	
Mortality Rate	9.9	10.7	9.1	9.7	10.3	9.2	-	-	-	14.3	-	-	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	2	1	-	-	1	1	3	5	9	13	30	147	-
White Male	1	-	-	-	-	-	2	2	5	7	21	68	-
White Female	1	1	-	-	1	1	1	3	5	9	9	77	-
Black Male	-	-	-	-	-	1	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	2	-	1	-	2	-
Other Female	-	-	-	-	-	-	-	-	1	-	-	-	-

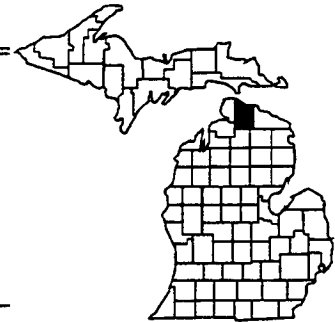
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	212	987.5	205	974.7	1	-	2	-
Diseases of the Heart	67	312.1	66	313.8	-	-	-	-
Malignant Neoplasms	57	265.5	55	261.5	-	-	-	-
Cerebrovascular Diseases	14	65.2	14	66.6	-	-	-	-
Accidents and Adverse Effects	12	55.9	10	47.5	1	-	1	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	6	27.9	6	28.5	-	-	-	-
Pneumonia and Influenza	6	27.9	6	28.5	-	-	-	-
Diabetes Mellitus	4	-	4	-	-	-	-	-
Chronic Liver Disease and Cirrhosis	1	-	-	-	-	-	-	-
Homicide	1	-	1	-	-	-	-	-
Suicide	3	-	3	-	-	-	-	-
Atherosclerosis	-	-	-	-	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Cheboygan County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	21,398	Total Live Births:	293	Total Deaths:	244
Rank Among Counties:	57	Teenage Mothers:	46	Infant Deaths:	3
Per Square Mile:	29.7	Low Weight Births:	21	Neonatal Deaths:	1
		First Births:	122	Postneonatal Deaths:	2
				Perinatal Deaths:	3
				Fetal Deaths:	2
MARRIAGE		DIVORCE			
Marriages:	180	Divorces:	116		
Marriage Rate:	16.8	Divorce Rate:	10.8		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	293	13.7	280	13.4	1	.	10	18.7
Teenage Mothers	46	157.0	43	153.6	1	.	1	.
Low Weight	21	71.7	20	71.4	-	-	1	.
Under 1,500 Grams	6	20.5	6	21.4	-	-	-	.
< 38 Weeks Gestation	50	170.6	47	167.9	-	-	2	.
Prenatal Care Began in 1st Trimester	247	843.0	238	850.0	1	.	6	600.0

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	3	.	3	.	-	-	-	-
Neonatal Deaths	1	.	1	.	-	-	-	-
Postneonatal Deaths	2	.	2	.	-	-	-	-
Perinatal Deaths	3	.	3	.	-	-	-	-
Fetal Deaths	2	.	2	.	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	244	132	112	240	129	111	-	-	-	4	3	1	
Mortality Rate	11.4	12.7	10.2	11.5	12.8	10.3	-	-	-	.	.	.	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	3	-	-	-	3	-	1	7	5	20	40	165	-
White Male	3	-	-	-	2	-	-	6	3	11	22	82	-
White Female	-	-	-	-	1	-	1	-	2	8	17	82	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	1	-	1	1	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	1	-

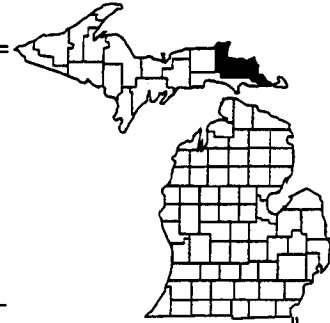
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	244	1,140.3	240	1,151.2	-	-	3	.
Diseases of the Heart	82	383.2	80	383.7	-	-	-	-
Malignant Neoplasms	72	336.5	72	345.4	-	-	-	-
Cerebrovascular Diseases	14	65.4	14	67.2	-	-	-	-
Accidents and Adverse Effects	8	37.4	8	38.4	-	-	3	.
Chronic Obstructive Pulmonary Diseases and Allied Conditions	7	32.7	7	33.6	-	-	-	-
Pneumonia and Influenza	10	46.7	10	48.0	-	-	-	-
Diabetes Mellitus	5	.	4	.	-	-	-	-
Chronic Liver Disease and Cirrhosis	2	.	2	.	-	-	-	-
Homicide	1	.	1	.	-	-	-	-
Suicide	5	.	5	.	-	-	-	-
Atherosclerosis	2	.	2	.	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Chippewa County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	34,604	Total Live Births:	402	Total Deaths:	283
Rank Among Counties:	45	Teenage Mothers:	57	Infant Deaths:	2
Per Square Mile:	21.8	Low Weight Births:	15	Neonatal Deaths:	-
		First Births:	169	Postneonatal Deaths:	2
				Perinatal Deaths:	2
				Fetal Deaths:	2
MARRIAGE		DIVORCE			
Marriages:	290	Divorces:	117		
Marriage Rate:	16.8	Divorce Rate:	6.8		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	402	11.6	316	11.1	3	.	81	20.4
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	57	141.8	39	123.4	1	.	17	209.9
Low Weight	15	37.3	12	38.0	-	-	3	.
Under 1,500 Grams	2	.	-	-	-	-	2	.
< 38 Weeks Gestation	52	129.4	41	129.7	-	-	11	135.8
Prenatal Care Began in 1st Trimester	311	773.6	245	775.3	2	.	64	790.1

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	2	.	1	.	-	-	1	.
Neonatal Deaths	-	-	-	-	-	-	-	-
Postneonatal Deaths	2	.	1	.	-	-	1	.
Perinatal Deaths	2	.	2	.	-	-	-	-
Fetal Deaths	2	.	2	.	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	283	152	131	247	133	114	1	1	-	35	18	17	
Mortality Rate	8.2	7.9	8.5	8.7	8.9	8.5	.	.	-	8.8	8.8	8.8	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	2	1	1	1	1	4	6	3	5	20	47	192	-
White Male	-	1	-	-	-	-	2	1	3	12	30	84	-
White Female	1	-	1	-	1	1	3	1	1	4	8	93	-
Black Male	-	-	-	-	-	-	-	-	1	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	1	-	1	1	-	-	2	5	7	-
Other Female	1	-	-	-	-	2	-	-	-	2	4	8	-

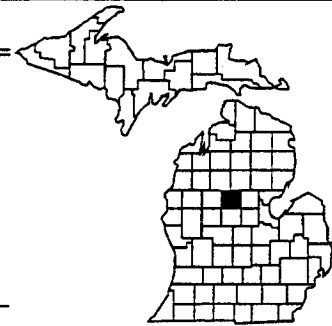
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	283	817.8	247	868.8	1	.	4	.
Diseases of the Heart	91	263.0	77	270.8	-	-	-	-
Malignant Neoplasms	65	187.8	61	214.6	-	-	1	.
Cerebrovascular Diseases	18	52.0	17	59.8	-	-	-	-
Accidents and Adverse Effects	9	26.0	7	24.6	-	-	3	.
Chronic Obstructive Pulmonary Diseases and Allied Conditions	21	60.7	18	63.3	-	-	-	-
Pneumonia and Influenza	10	28.9	9	31.7	-	-	-	-
Diabetes Mellitus	7	20.2	7	24.6	-	-	-	-
Chronic Liver Disease and Cirrhosis	4	.	3	.	-	-	-	-
Homicide	2	.	2	.	-	-	-	-
Suicide	4	.	2	.	-	-	-	-
Atherosclerosis	1	.	-	-	-	-	-	-
AIDS	1	.	1	.	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Clare County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	24,952	Total Live Births:	376	Total Deaths:	316
Rank Among Counties:	52	Teenage Mothers:	70	Infant Deaths:	2
Per Square Mile:	43.8	Low Weight Births:	25	Neonatal Deaths:	1
		First Births:	151	Postneonatal Deaths:	1
				Perinatal Deaths:	4
				Fetal Deaths:	3
MARRIAGE		DIVORCE			
Marriages:	214	Divorces:	137		
Marriage Rate:	17.2	Divorce Rate:	11.0		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	376	15.1	372	15.1	-	-	2	-
Teenage Mothers	70	186.2	69	185.5	-	-	1	-
Low Weight	25	66.5	25	67.2	-	-	-	-
Under 1,500 Grams	1	-	1	-	-	-	-	-
< 38 Weeks Gestation	68	180.9	68	182.8	-	-	-	-
Prenatal Care Began in 1st Trimester	318	845.7	316	849.5	-	-	2	-

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	2	-	2	-	-	-	-	-
Neonatal Deaths	1	-	1	-	-	-	-	-
Postneonatal Deaths	1	-	1	-	-	-	-	-
Perinatal Deaths	4	-	4	-	-	-	-	-
Fetal Deaths	3	-	3	-	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	316	166	150	314	165	149	-	-	-	-	-	-	
Mortality Rate	12.7	13.8	11.6	12.7	13.8	11.7	-	-	-	-	-	-	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	2	2	-	-	-	3	3	7	12	21	56	210	-
White Male	2	-	-	-	-	2	3	3	10	13	32	100	-
White Female	-	2	-	-	-	1	-	4	2	8	24	108	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

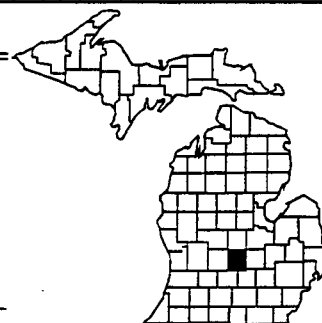
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	316	1,266.4	314	1,271.5	-	-	2	-
Diseases of the Heart	116	464.9	115	465.7	-	-	-	-
Malignant Neoplasms	85	340.7	85	344.2	-	-	-	-
Cerebrovascular Diseases	21	84.2	21	85.0	-	-	-	-
Accidents and Adverse Effects	8	32.1	8	32.4	-	-	2	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	18	72.1	18	72.9	-	-	-	-
Pneumonia and Influenza	15	60.1	15	60.7	-	-	-	-
Diabetes Mellitus	7	28.1	7	28.3	-	-	-	-
Chronic Liver Disease and Cirrhosis	3	-	3	-	-	-	-	-
Homicide	1	-	1	-	-	-	-	-
Suicide	4	-	4	-	-	-	-	-
Atherosclerosis	-	-	-	-	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Clinton County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	57,883	Total Live Births:	832	Total Deaths:	373
Rank Among Counties:	29	Teenage Mothers:	63	Infant Deaths:	6
Per Square Mile:	101.0	Low Weight Births:	44	Neonatal Deaths:	5
		First Births:	306	Postneonatal Deaths:	1
				Perinatal Deaths:	10
				Fetal Deaths:	6
MARRIAGE		DIVORCE			
Marriages:	443	Divorces:	245		
Marriage Rate:	15.3	Divorce Rate:	8.5		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	832	14.4	818	14.3	4	.	7	14.3
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	63	75.7	60	73.3	1	.	1	.
Low Weight	44	52.9	43	52.6	-	-	1	.
Under 1,500 Grams	4	.	4	.	-	-	-	-
< 38 Weeks Gestation	116	139.4	115	140.6	-	-	1	.
Prenatal Care Began in 1st Trimester	697	837.7	685	837.4	4	.	5	.

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	6	7.2	5	.	1	.	-	-
Neonatal Deaths	5	.	4	.	1	.	-	-
Postneonatal Deaths	1	.	1	.	-	-	-	-
Perinatal Deaths	10	11.9	9	10.9	1	.	-	-
Fetal Deaths	6	7.2	6	7.3	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	373	195	178	371	195	176	1	-	1	1	-	1	
Mortality Rate	6.4	6.8	6.1	6.5	6.8	6.1	.	-	.	.	-	.	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	6	1	-	2	1	3	4	13	18	23	53	249	-
White Male	4	1	-	1	1	3	2	10	8	12	28	125	-
White Female	1	-	-	1	-	-	2	2	10	11	25	124	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	1	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	1	-	-	-	-	-

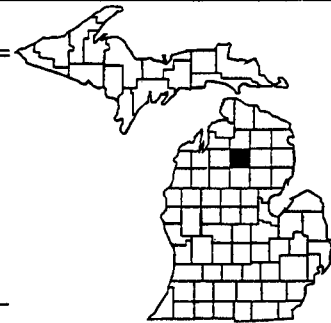
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	373	644.4	371	648.9	1	.	4	.
Diseases of the Heart	117	202.1	116	202.9	-	-	-	-
Malignant Neoplasms	87	150.3	87	152.2	-	-	-	-
Cerebrovascular Diseases	25	43.2	25	43.7	-	-	-	-
Accidents and Adverse Effects	21	36.3	21	36.7	-	-	2	.
Chronic Obstructive Pulmonary Diseases and Allied Conditions	11	19.0	11	19.2	-	-	-	-
Pneumonia and Influenza	14	24.2	14	24.5	-	-	-	-
Diabetes Mellitus	11	19.0	11	19.2	-	-	-	-
Chronic Liver Disease and Cirrhosis	3	.	3	.	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	3	.	3	.	-	-	-	-
Atherosclerosis	5	.	5	.	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Crawford County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	12,260	Total Live Births:	164	Total Deaths:	134
Rank Among Counties:	70	Teenage Mothers:	35	Infant Deaths:	2
Per Square Mile:	21.9	Low Weight Births:	12	Neonatal Deaths:	1
		First Births:	50	Postneonatal Deaths:	1
				Perinatal Deaths:	3
				Fetal Deaths:	2
MARRIAGE		DIVORCE			
Marriages:	96	Divorces:	77		
Marriage Rate:	15.7	Divorce Rate:	12.6		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	164	13.4	157	13.3	2	.	5	.
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	35	213.4	32	203.8	2	.	1	.
Low Weight	12	73.2	12	76.4	-	-	-	-
Under 1,500 Grams	3	.	3	.	-	-	-	-
< 38 Weeks Gestation	19	115.9	17	108.3	1	.	1	.
Prenatal Care Began in 1st Trimester	129	786.6	126	802.5	-	-	3	.

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	2	.	2	.	-	-	-	-
Neonatal Deaths	1	.	1	.	-	-	-	-
Postneonatal Deaths	1	.	1	.	-	-	-	-
Perinatal Deaths	3	.	3	.	-	-	-	-
Fetal Deaths	2	.	2	.	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	134	64	70	134	64	70	-	-	-	-	-	-	
Mortality Rate	10.9	10.2	11.7	11.3	10.8	11.9	-	-	-	-	-	-	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	2	-	-	1	1	1	3	2	4	7	23	90	-
White Male	-	-	-	1	1	1	2	-	2	4	13	40	-
White Female	2	-	-	-	-	-	1	2	2	3	10	50	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

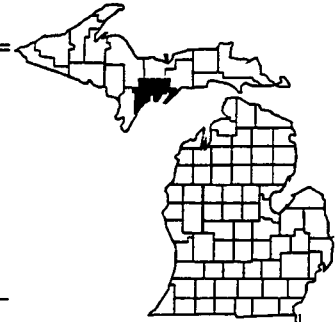
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	134	1,093.0	134	1,134.7	-	-	2	.
Diseases of the Heart	34	277.3	34	287.9	-	-	-	-
Malignant Neoplasms	36	293.6	36	304.9	-	-	-	-
Cerebrovascular Diseases	8	65.3	8	67.7	-	-	-	-
Accidents and Adverse Effects	10	81.6	10	84.7	-	-	2	.
Chronic Obstructive Pulmonary Diseases and Allied Conditions	5	.	5	.	-	-	-	-
Pneumonia and Influenza	9	73.4	9	76.2	-	-	-	-
Diabetes Mellitus	3	.	3	.	-	-	-	-
Chronic Liver Disease and Cirrhosis	2	.	2	.	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	2	.	2	.	-	-	-	-
Atherosclerosis	5	.	5	.	-	-	-	-
AIDS	1	.	1	.	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Delta County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	37,780	Total Live Births:	411	Total Deaths:	368
Rank Among Counties:	41	Teenage Mothers:	53	Infant Deaths:	4
Per Square Mile:	32.2	Low Weight Births:	28	Neonatal Deaths:	3
		First Births:	156	Postneonatal Deaths:	1
				Perinatal Deaths:	6
				Fetal Deaths:	4
MARRIAGE		DIVORCE			
Marriages:	308	Divorces:	138		
Marriage Rate:	16.3	Divorce Rate:	7.3		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	411	10.9	398	10.8	1	.	12	13.2
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	53	129.0	52	130.7	-	-	1	.
Low Weight	28	68.1	26	65.3	-	-	2	.
Under 1,500 Grams	2	.	2	.	-	-	-	.
< 38 Weeks Gestation	59	143.6	55	138.2	-	-	4	.
Prenatal Care Began in 1st Trimester	302	734.8	295	741.2	1	.	6	500.0

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	4	.	4	.	-	-	-	-
Neonatal Deaths	3	.	3	.	-	-	-	-
Postneonatal Deaths	1	.	1	.	-	-	-	-
Perinatal Deaths	6	14.5	5	.	-	-	-	-
Fetal Deaths	4	.	3	.	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Total	Black		Total	Other		
	Total	Male	Female	Total	Male	Female		Male	Female		Male	Female	
Deaths	368	206	162	366	206	160	-	-	-	1	-	1	
Mortality Rate	9.7	11.2	8.4	9.9	11.5	8.5	-	-	-	.	-	.	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	4	-	-	-	1	2	1	10	13	24	53	260	-
White Male	4	-	-	-	1	2	1	9	8	18	30	133	-
White Female	-	-	-	-	-	-	-	1	4	6	23	126	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	1	-	-	-	-	-

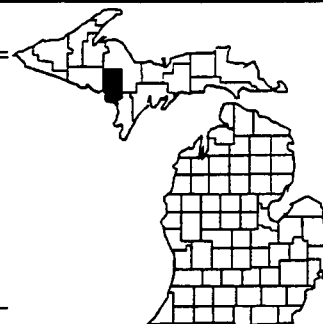
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	368	974.1	366	993.2	-	-	1	.
Diseases of the Heart	117	309.7	117	317.5	-	-	-	-
Malignant Neoplasms	104	275.3	102	276.8	-	-	1	.
Cerebrovascular Diseases	27	71.5	27	73.3	-	-	-	-
Accidents and Adverse Effects	11	29.1	11	29.8	-	-	-	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	10	26.5	10	27.1	-	-	-	-
Pneumonia and Influenza	6	15.9	6	16.3	-	-	-	-
Diabetes Mellitus	15	39.7	15	40.7	-	-	-	-
Chronic Liver Disease and Cirrhosis	4	.	4	.	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	5	.	5	.	-	-	-	-
Atherosclerosis	3	.	3	.	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Dickinson County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	26,831	Total Live Births:	322	Total Deaths:	307
Rank Among Counties:	48	Teenage Mothers:	34	Infant Deaths:	2
Per Square Mile:	34.8	Low Weight Births:	18	Neonatal Deaths:	2
		First Births:	123	Postneonatal Deaths:	-
				Perinatal Deaths:	2
				Fetal Deaths:	1
MARRIAGE		DIVORCE			
Marriages:	228	Divorces:	132		
Marriage Rate:	17.0	Divorce Rate:	9.8		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	322	12.0	316	11.9	-	-	6	24.1
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	34	105.6	33	104.4	-	-	1	.
Low Weight	18	55.9	17	53.8	-	-	1	.
Under 1,500 Grams	6	18.6	6	19.0	-	-	-	-
< 38 Weeks Gestation	43	133.5	42	132.9	-	-	1	.
Prenatal Care Began in 1st Trimester	273	847.8	269	851.3	-	-	4	.

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	2	.	2	.	-	-	-	-
Neonatal Deaths	2	.	2	.	-	-	-	-
Postneonatal Deaths	-	-	-	-	-	-	-	-
Perinatal Deaths	2	.	2	.	-	-	-	-
Fetal Deaths	1	.	1	.	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	307	159	148	305	158	147	-	-	-	2	1	1	
Mortality Rate	11.4	12.1	10.8	11.5	12.1	10.9	-	-	-	.	.	.	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	2	-	-	1	4	-	3	4	7	11	49	226	-
White Male	2	-	-	-	3	-	3	3	5	5	33	104	-
White Female	-	-	-	1	1	-	-	1	1	6	16	121	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	1	-
Other Female	-	-	-	-	-	-	-	-	1	-	-	-	-

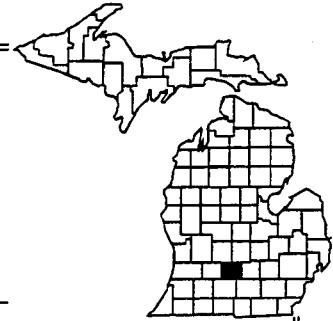
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	307	1,144.2	305	1,148.4	-	-	5	.
Diseases of the Heart	104	387.6	103	387.8	-	-	1	.
Malignant Neoplasms	64	238.5	63	237.2	-	-	1	.
Cerebrovascular Diseases	23	85.7	23	86.6	-	-	-	-
Accidents and Adverse Effects	16	59.6	16	60.2	-	-	3	.
Chronic Obstructive Pulmonary Diseases and Allied Conditions	12	44.7	12	45.2	-	-	-	-
Pneumonia and Influenza	6	22.4	6	22.6	-	-	-	-
Diabetes Mellitus	11	41.0	11	41.4	-	-	-	-
Chronic Liver Disease and Cirrhosis	5	.	5	.	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	4	.	4	.	-	-	-	-
Atherosclerosis	6	22.4	6	22.6	-	-	-	-
AIDS	1	.	1	.	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Eaton County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	92,879	Total Live Births:	1,192	Total Deaths:	620
Rank Among Counties:	19	Teenage Mothers:	135	Infant Deaths:	4
Per Square Mile:	160.3	Low Weight Births:	71	Neonatal Deaths:	1
		First Births:	508	Postneonatal Deaths:	3
				Perinatal Deaths:	8
				Fetal Deaths:	8
MARRIAGE		DIVORCE			
Marriages:	775	Divorces:	528		
Marriage Rate:	16.7	Divorce Rate:	11.4		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	1,192	12.8	1,143	12.9	43	12.8	4	.
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	135	113.3	125	109.4	9	209.3	1	.
Low Weight	71	59.6	66	57.7	5	.	.	.
Under 1,500 Grams	8	6.7	8	7.0	.	.	.	.
< 38 Weeks Gestation	171	143.5	161	140.9	9	209.3	.	.
Prenatal Care Began in 1st Trimester	996	835.6	963	842.5	30	697.7	2	.

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	4	.	3	.	1	.	.	.
Neonatal Deaths	1	.	1	.	.	.	.	.
Postneonatal Deaths	3	.	2	.	1	.	.	.
Perinatal Deaths	8	6.7	8	7.0	.	.	.	.
Fetal Deaths	8	6.7	8	7.0	.	.	.	.

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	620	304	316	604	293	311	13	9	4	3	2	1	
Mortality Rate	6.7	6.7	6.6	6.8	6.8	6.8	3.9	5.6	.	.	.	.
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	4	-	2	-	7	1	3	17	24	55	85	422	-
White Male	1	-	1	-	5	1	1	9	18	27	51	179	-
White Female	2	-	1	-	2	-	2	6	5	25	32	236	-
Black Male	1	-	-	-	-	-	-	-	1	1	2	4	-
Black Female	-	-	-	-	-	-	-	1	-	1	-	2	-
Other Male	-	-	-	-	-	-	-	1	-	1	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	1	-

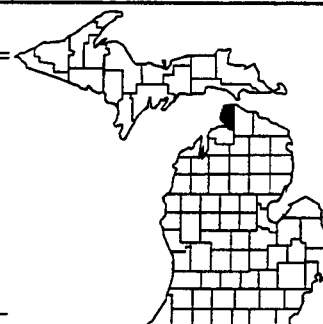
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	620	667.5	604	682.4	13	388.3	9	33.0
Diseases of the Heart	184	198.1	182	205.6	1	.	-	-
Malignant Neoplasms	168	180.9	162	183.0	6	179.2	1	.
Cerebrovascular Diseases	40	43.1	40	45.2	-	-	-	-
Accidents and Adverse Effects	30	32.3	29	32.8	1	.	6	22.0
Chronic Obstructive Pulmonary Diseases and Allied Conditions	33	35.5	33	37.3	-	-	-	-
Pneumonia and Influenza	31	33.4	29	32.8	1	.	-	-
Diabetes Mellitus	15	16.2	15	16.9	-	-	-	-
Chronic Liver Disease and Cirrhosis	4	.	4	.	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	8	8.6	8	9.0	-	-	1	.
Atherosclerosis	10	10.8	10	11.3	-	-	-	-
AIDS	1	.	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Emmet County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	25,040	Total Live Births:	359	Total Deaths:	255
Rank Among Counties:	51	Teenage Mothers:	41	Infant Deaths:	6
Per Square Mile:	53.5	Low Weight Births:	21	Neonatal Deaths:	5
		First Births:	148	Postneonatal Deaths:	1
				Perinatal Deaths:	11
				Fetal Deaths:	6
MARRIAGE		DIVORCE			
Marriages:	292	Divorces:	154		
Marriage Rate:	23.3	Divorce Rate:	12.3		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	359	14.3	347	14.4	1	*	11	14.6
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	41	114.2	37	106.6	1	*	3	*
Low Weight	21	58.5	21	60.5	-	-	-	-
Under 1,500 Grams	3	*	3	*	-	-	-	-
< 38 Weeks Gestation	58	161.6	57	164.3	-	-	1	*
Prenatal Care Began in 1st Trimester	288	802.2	282	812.7	-	-	6	545.5

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	6	16.7	6	17.3	-	-	-	-
Neonatal Deaths	5	*	5	*	-	-	-	-
Postneonatal Deaths	1	*	1	*	-	-	-	-
Perinatal Deaths	11	30.1	11	31.2	-	-	-	-
Fetal Deaths	6	16.4	6	17.0	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	255	123	132	247	122	125	-	-	-	8	1	7	
Mortality Rate	10.2	10.1	10.3	10.2	10.5	10.0	-	-	-	10.6	*	20.3	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	6	1	-	-	2	2	3	4	6	11	40	180	-
White Male	3	-	-	-	1	1	3	3	4	2	25	80	-
White Female	3	1	-	-	1	1	-	1	2	8	13	95	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	1	-	-
Other Female	-	-	-	-	-	-	-	-	-	1	1	5	-

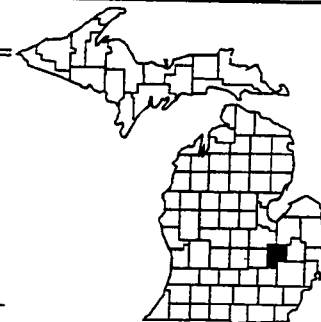
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	255	1,018.4	247	1,022.6	-	-	3	*
Diseases of the Heart	77	307.5	74	306.4	-	-	-	-
Malignant Neoplasms	68	271.6	66	273.2	-	-	-	-
Cerebrovascular Diseases	10	39.9	10	41.4	-	-	1	*
Accidents and Adverse Effects	8	31.9	7	29.0	-	-	1	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	15	59.9	15	62.1	-	-	-	-
Pneumonia and Influenza	12	47.9	12	49.7	-	-	-	-
Diabetes Mellitus	6	24.0	6	24.8	-	-	-	-
Chronic Liver Disease and Cirrhosis	3	*	3	*	-	-	-	-
Homicide	2	*	2	*	-	-	-	-
Suicide	2	*	2	*	-	-	-	-
Atherosclerosis	-	-	-	-	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Genesee County



POPULATION		NATILITY		MORTALITY	
As of April 1, 1990:	430,459	Total Live Births:	7,261	Total Deaths:	3,642
Rank Among Counties:	5	Teenage Mothers:	1,236	Infant Deaths:	73
Per Square Mile:	671.0	Low Weight Births:	646	Neonatal Deaths:	47
		First Births:	2,846	Postneonatal Deaths:	26
				Perinatal Deaths:	64
				Fetal Deaths:	27
MARRIAGE		DIVORCE			
Marriages:	3,396	Divorces:	1,730		
Marriage Rate:	15.8	Divorce Rate:	8.0		

NATILITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	7,261	16.9	4,974	14.6	2,217	26.2	63	10.2
Teenage Mothers	1,236	170.2	613	123.2	610	275.1	9	142.9
Low Weight	646	89.0	320	64.3	325	146.6	1	.
Under 1,500 Grams	128	17.6	65	13.1	63	28.4	-	.
< 38 Weeks Gestation	1,338	184.3	770	154.8	562	253.5	5	.
Prenatal Care Began in 1st Trimester	5,778	795.8	4,247	853.8	1,483	668.9	45	714.3

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	73	10.1	35	7.0	37	16.7	1	.
Neonatal Deaths	47	6.5	26	5.2	21	9.5	-	.
Postneonatal Deaths	26	3.6	9	1.8	16	7.2	1	.
Perinatal Deaths	64	8.8	37	7.4	27	12.1	-	.
Fetal Deaths	27	3.7	16	3.2	11	4.9	-	.

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	3,642	1,910	1,732	2,956	1,534	1,422	659	365	294	27	11	16	
Mortality Rate	8.5	9.3	7.7	8.7	9.4	8.1	7.8	9.3	6.5	4.4	3.7	5.0	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	73	18	12	10	28	42	35	126	188	315	750	2,045	-
White Male	16	7	4	7	16	20	15	61	89	129	355	815	-
White Female	19	3	3	-	1	7	7	25	44	93	248	972	-
Black Male	18	6	3	2	9	11	11	25	35	56	83	106	-
Black Female	19	-	2	1	2	4	2	14	17	34	58	141	-
Other Male	1	2	-	-	-	-	-	1	2	-	-	5	-
Other Female	-	-	-	-	-	-	-	-	1	3	6	6	-

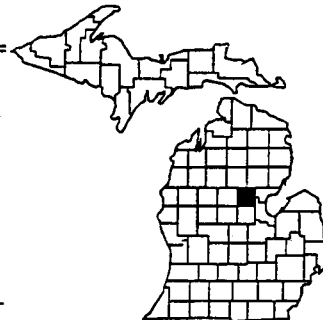
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	3,642	846.1	2,956	870.4	659	778.4	68	53.4
Diseases of the Heart	1,276	296.4	1,072	315.7	201	237.4	-	-
Malignant Neoplasms	872	202.6	719	211.7	146	172.5	6	4.7
Cerebrovascular Diseases	230	53.4	187	55.1	41	48.4	-	-
Accidents and Adverse Effects	146	33.9	117	34.5	25	29.5	33	25.9
Chronic Obstructive Pulmonary Diseases and Allied Conditions	158	36.7	140	41.2	14	16.5	-	-
Pneumonia and Influenza	100	23.2	86	25.3	12	14.2	1	.
Diabetes Mellitus	100	23.2	76	22.4	22	26.0	-	-
Chronic Liver Disease and Cirrhosis	30	7.0	17	5.0	13	15.4	1	.
Homicide	57	13.2	20	5.9	37	43.7	6	4.7
Suicide	33	7.7	29	8.5	4	.	4	.
Atherosclerosis	35	8.1	32	9.4	3	.	-	-
AIDS	26	6.0	20	5.9	6	7.1	1	.

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Gladwin County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	21,896	Total Live Births:	299	Total Deaths:	267
Rank Among Counties:	55	Teenage Mothers:	48	Infant Deaths:	2
Per Square Mile:	43.3	Low Weight Births:	16	Neonatal Deaths:	-
		First Births:	114	Postneonatal Deaths:	2
				Perinatal Deaths:	2
				Fetal Deaths:	2
MARRIAGE		DIVORCE			
Marriages:	187	Divorces:	129		
Marriage Rate:	17.1	Divorce Rate:	11.8		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	299	13.7	296	13.6	-	-	2	-
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	48	160.5	48	162.2	-	-	-	-
Low Weight	16	53.5	15	50.7	-	-	1	-
Under 1,500 Grams	1	*	1	*	-	-	-	-
< 38 Weeks Gestation	48	160.5	48	162.2	-	-	-	-
Prenatal Care Began in 1st Trimester	238	796.0	236	797.3	-	-	2	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	2	*	2	*	-	-	-	-
Neonatal Deaths	-	-	-	-	-	-	-	-
Postneonatal Deaths	2	*	2	*	-	-	-	-
Perinatal Deaths	2	*	2	*	-	-	-	-
Fetal Deaths	2	*	2	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	267	150	117	267	150	117	-	-	-	-	-	-	
Mortality Rate	12.2	13.9	10.5	12.3	14.0	10.6	-	-	-	-	-	-	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	2	2	-	-	-	-	4	5	6	23	51	174	-
White Male	1	1	-	-	-	-	3	3	5	18	32	87	-
White Female	1	1	-	-	-	-	1	2	1	5	19	87	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	267	1,219.4	267	1,229.2	-	-	2	*
Diseases of the Heart	103	470.4	103	474.2	-	-	-	-
Malignant Neoplasms	65	296.9	65	299.2	-	-	-	-
Cerebrovascular Diseases	25	114.2	25	115.1	-	-	-	-
Accidents and Adverse Effects	7	32.0	7	32.2	-	-	1	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	16	73.1	16	73.7	-	-	-	-
Pneumonia and Influenza	11	50.2	11	50.6	-	-	-	-
Diabetes Mellitus	-	-	-	-	-	-	-	-
Chronic Liver Disease and Cirrhosis	-	-	-	-	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	4	*	4	*	-	-	-	-
Atherosclerosis	1	*	1	*	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Gogebic County



POPULATION

As of April 1, 1990: 18,052
 Rank Among Counties: 63
 Per Square Mile: 16.3

NATALITY

Total Live Births: 178
 Teenage Mothers: 22
 Low Weight Births: 8
 First Births: 63

MORTALITY

Total Deaths: 264
 Infant Deaths: -
 Neonatal Deaths: -
 Postneonatal Deaths: 3
 Perinatal Deaths: 3
 Fetal Deaths: 3

MARRIAGE

Marriages: 144
 Marriage Rate: 16.0

DIVORCE

Divorces: 42
 Divorce Rate: 4.7

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	178	9.9	173	9.9	1	.	4	.
Teenage Mothers	22	123.6	21	121.4	1	.	-	.
Low Weight	8	44.9	8	46.2	-	.	-	.
Under 1,500 Grams	1	.	1	.	-	.	-	.
< 38 Weeks Gestation	22	123.6	22	127.2	-	.	-	.
Prenatal Care Began in 1st Trimester	143	803.4	141	815.0	1	.	1	.

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	-	-	-	-	-	-	-	-
Neonatal Deaths	-	-	-	-	-	-	-	-
Postneonatal Deaths	-	-	-	-	-	-	-	-
Perinatal Deaths	3	.	3	.	-	-	-	-
Fetal Deaths	3	.	3	.	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	264	127	137	261	125	136	-	-	-	3	2	1
Mortality Rate	14.6	14.3	14.9	14.9	14.8	15.0	-	-	-	3	2	1

	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	-	-	-	-	1	1	3	5	1	6	43	204	-
White Male	-	-	-	-	1	1	2	3	1	2	26	90	-
White Female	-	-	-	-	-	-	-	-	-	-	16	113	-
Black Male	-	-	-	-	-	1	1	2	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	1	-	-	1	-

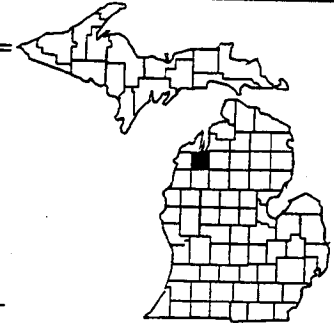
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	264	1,462.4	261	1,491.7	-	-	1	.
Diseases of the Heart	85	470.9	84	480.1	-	-	-	-
Malignant Neoplasms	69	382.2	68	388.6	-	-	-	-
Cerebrovascular Diseases	26	144.0	26	148.6	-	-	-	-
Accidents and Adverse Effects	4	.	3	.	-	-	-	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	11	60.9	11	62.9	-	-	-	-
Pneumonia and Influenza	11	60.9	11	62.9	-	-	-	-
Diabetes Mellitus	5	.	5	.	-	-	-	-
Chronic Liver Disease and Cirrhosis	2	.	2	.	-	-	-	-
Homicide	2	.	2	.	-	-	-	-
Suicide	3	.	3	.	-	-	-	-
Atherosclerosis	-	-	-	-	-	-	1	.
AIDS	1	.	1	.	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Grand Traverse County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	64,273	Total Live Births:	921	Total Deaths:	501
Rank Among Counties:	27	Teenage Mothers:	88	Infant Deaths:	10
Per Square Mile:	137.9	Low Weight Births:	58	Neonatal Deaths:	7
		First Births:	393	Postneonatal Deaths:	3
				Perinatal Deaths:	11
				Fetal Deaths:	5
MARRIAGE		DIVORCE			
Marriages:	671	Divorces:	355		
Marriage Rate:	20.9	Divorce Rate:	11.0		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	921	14.3	896	14.2	1	-	23	26.2
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	88	95.5	82	91.5	-	-	5	-
Low Weight	58	63.0	58	64.7	-	-	-	-
Under 1,500 Grams	14	15.2	14	15.6	-	-	-	-
< 38 Weeks Gestation	155	168.3	152	169.6	-	-	3	-
Prenatal Care Began in 1st Trimester	669	726.4	658	734.4	-	-	10	434.8

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	10	10.9	10	11.2	-	-	-	-
Neonatal Deaths	7	7.6	7	7.8	-	-	-	-
Postneonatal Deaths	3	-	3	-	-	-	-	-
Perinatal Deaths	11	11.9	11	12.2	-	-	-	-
Fetal Deaths	5	-	5	-	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	501	260	241	495	257	238	2	1	1	4	2	2	
Mortality Rate	7.8	8.3	7.3	7.8	8.4	7.3	-	-	-	-	-	-	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	10	-	3	3	1	1	2	16	18	21	69	357	-
White Male	7	-	3	3	-	-	2	8	10	17	38	169	-
White Female	3	-	-	-	1	1	-	6	7	4	30	186	-
Black Male	-	-	-	-	-	-	-	1	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	1	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	1	-	1	1	-

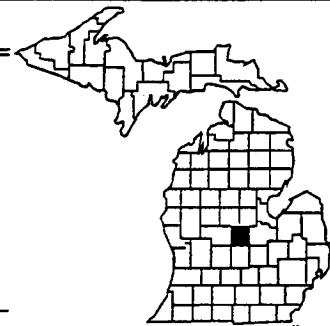
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	501	779.5	495	784.0	-	-	-	-
Diseases of the Heart	166	258.3	165	261.3	2	-	7	37.9
Malignant Neoplasms	135	210.0	134	212.2	-	-	1	-
Cerebrovascular Diseases	33	51.3	33	52.3	-	-	-	-
Accidents and Adverse Effects	19	29.6	19	30.1	-	-	3	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	19	29.6	19	30.1	-	-	-	-
Pneumonia and Influenza	12	18.7	12	19.0	-	-	-	-
Diabetes Mellitus	12	18.7	12	19.0	-	-	-	-
Chronic Liver Disease and Cirrhosis	4	-	4	-	-	-	1	-
Homicide	-	-	-	-	-	-	-	-
Suicide	7	10.9	7	11.1	-	-	-	-
Atherosclerosis	6	9.3	6	9.5	-	-	-	-
AIDS	2	-	-	-	2	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Gratiot County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	38,982	Total Live Births:	547	Total Deaths:	398
Rank Among Counties:	39	Teenage Mothers:	69	Infant Deaths:	4
Per Square Mile:	68.3	Low Weight Births:	33	Neonatal Deaths:	2
		First Births:	220	Postneonatal Deaths:	2
				Perinatal Deaths:	3
				Fetal Deaths:	1
MARRIAGE		DIVORCE			
Marriages:	292	Divorces:	153		
Marriage Rate:	15.0	Divorce Rate:	7.8		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	547	14.0	540	14.1	2	-	5	-
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	69	126.1	68	125.9	1	-	-	-
Low Weight	33	60.3	32	59.3	-	-	1	-
Under 1,500 Grams	9	16.5	9	16.7	-	-	-	-
< 38 Weeks Gestation	92	168.2	91	168.5	-	-	1	-
Prenatal Care Began in 1st Trimester	438	800.7	433	801.9	1	-	4	-

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	4	-	4	-	-	-	-	-
Neonatal Deaths	2	-	2	-	-	-	-	-
Postneonatal Deaths	2	-	2	-	-	-	-	-
Perinatal Deaths	3	-	3	-	-	-	-	-
Fetal Deaths	1	-	1	-	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	398	186	212	396	185	211	-	-	-	2	1	1	
Mortality Rate	10.2	9.8	10.6	10.3	10.0	10.6	-	-	-	-	-	-	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	4	1	1	1	2	1	2	6	9	30	49	292	-
White Male	2	-	1	-	2	-	1	4	5	14	31	125	-
White Female	2	1	-	1	-	1	1	2	4	15	18	166	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	1	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	1	-

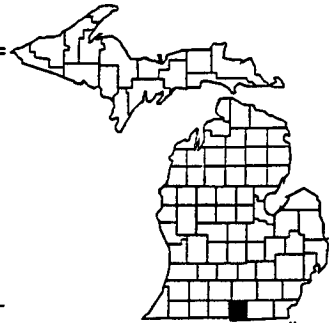
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	398	1,021.0	396	1,031.3	-	-	5	-
Diseases of the Heart	165	423.3	164	427.1	-	-	-	-
Malignant Neoplasms	69	177.0	68	177.1	-	-	2	-
Cerebrovascular Diseases	29	74.4	29	75.5	-	-	-	-
Accidents and Adverse Effects	11	28.2	11	28.6	-	-	2	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	18	46.2	18	46.9	-	-	-	-
Pneumonia and Influenza	32	82.1	32	83.3	-	-	-	-
Diabetes Mellitus	10	25.7	10	26.0	-	-	-	-
Chronic Liver Disease and Cirrhosis	3	-	3	-	-	-	-	-
Homicide	1	-	1	-	-	-	-	-
Suicide	5	-	5	-	-	-	-	-
Atherosclerosis	4	-	4	-	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Hillsdale County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	43,431	Total Live Births:	553	Total Deaths:	389
Rank Among Counties:	36	Teenage Mothers:	89	Infant Deaths:	3
Per Square Mile:	72.0	Low Weight Births:	26	Neonatal Deaths:	2
		First Births:	217	Postneonatal Deaths:	1
				Perinatal Deaths:	6
				Fetal Deaths:	4
MARRIAGE		DIVORCE			
Marriages:	325	Divorces:	278		
Marriage Rate:	15.0	Divorce Rate:	12.8		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	553	12.7	551	12.8	1	.	1	.
Teenage Mothers	89	160.9	88	159.7	-	-	1	.
Low Weight	26	47.0	26	47.2	-	-	-	-
Under 1,500 Grams	5	.	5	.	-	-	-	-
< 38 Weeks Gestation	88	159.1	88	159.7	-	-	-	-
Prenatal Care Began in 1st Trimester	370	669.1	369	669.7	1	.	-	-

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	3	.	3	.	-	-	-	-
Neonatal Deaths	2	.	2	.	-	-	-	-
Postneonatal Deaths	1	.	1	.	-	-	-	-
Perinatal Deaths	6	10.8	6	10.8	-	-	-	-
Fetal Deaths	4	.	4	.	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	389	197	192	386	194	192	1	1	-	2	2	-	
Mortality Rate	9.0	9.2	8.7	9.0	9.2	8.8	.	.	-	.	.	-	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	3	3	-	2	3	6	3	9	18	16	72	254	-
White Male	1	3	-	-	1	4	1	5	9	9	42	119	-
White Female	2	-	-	2	2	1	2	4	8	7	30	134	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	1	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	1	-	-	1	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

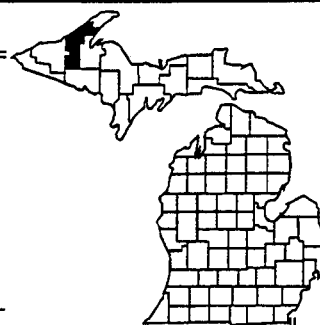
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	389	895.7	386	896.5	1	.	8	60.8
Diseases of the Heart	116	267.1	115	267.1	1	.	-	-
Malignant Neoplasms	86	198.0	85	197.4	-	-	-	-
Cerebrovascular Diseases	18	41.4	18	41.8	-	-	-	-
Accidents and Adverse Effects	28	64.5	27	62.7	-	-	4	.
Chronic Obstructive Pulmonary Diseases and Allied Conditions	20	46.1	20	46.4	-	-	-	-
Pneumonia and Influenza	18	41.4	18	41.8	-	-	-	-
Diabetes Mellitus	18	41.4	18	41.8	-	-	-	-
Chronic Liver Disease and Cirrhosis	4	.	4	.	-	-	-	-
Homicide	3	.	3	.	-	-	-	-
Suicide	6	13.8	6	13.9	-	-	-	-
Atherosclerosis	1	.	1	.	-	-	-	-
AIDS	1	.	1	.	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Houghton County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	35,446	Total Live Births:	411	Total Deaths:	409
Rank Among Counties:	43	Teenage Mothers:	39	Infant Deaths:	-
Per Square Mile:	35.0	Low Weight Births:	18	Neonatal Deaths:	-
		First Births:	131	Postneonatal Deaths:	-
				Perinatal Deaths:	2
				Fetal Deaths:	2
MARRIAGE		DIVORCE			
Marriages:	267	Divorces:	119		
Marriage Rate:	15.1	Divorce Rate:	6.7		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	411	11.6	394	11.4	1	-	16	20.9
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	39	94.9	39	99.0	-	-	-	-
Low Weight	18	43.8	18	45.7	-	-	-	-
Under 1,500 Grams	1	-	1	-	-	-	-	-
< 38 Weeks Gestation	50	121.7	48	121.8	-	-	2	-
Prenatal Care Began in 1st Trimester	342	832.1	327	829.9	1	-	14	875.0

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	-	-	-	-	-	-	-	-
Neonatal Deaths	-	-	-	-	-	-	-	-
Postneonatal Deaths	-	-	-	-	-	-	-	-
Perinatal Deaths	2	-	2	-	-	-	-	-
Fetal Deaths	2	-	2	-	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	409	218	191	407	217	190	-	-	-	2	1	1	
Mortality Rate	11.5	11.7	11.4	11.8	12.0	11.6	-	-	-	-	-	-	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	-	1	2	1	3	3	3	11	10	19	59	297	-
White Male	-	-	1	-	2	2	1	8	7	11	39	146	-
White Female	-	1	1	1	1	1	2	3	3	8	19	150	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	1	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	1	-

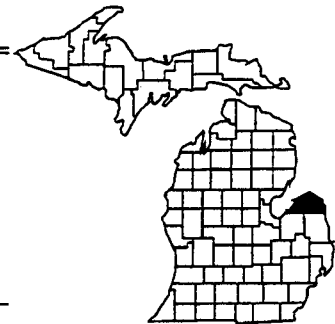
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	409	1,153.9	407	1,179.0	-	-	7	70.0
Diseases of the Heart	142	400.6	140	405.6	-	-	1	-
Malignant Neoplasms	106	299.0	106	307.1	-	-	-	-
Cerebrovascular Diseases	35	98.7	35	101.4	-	-	-	-
Accidents and Adverse Effects	18	50.8	18	52.1	-	-	3	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	12	33.9	12	34.8	-	-	-	-
Pneumonia and Influenza	21	59.2	21	60.8	-	-	-	-
Diabetes Mellitus	4	-	4	-	-	-	-	-
Chronic Liver Disease and Cirrhosis	3	-	3	-	-	-	-	-
Homicide	1	-	1	-	-	-	1	-
Suicide	6	16.9	6	17.4	-	-	1	-
Atherosclerosis	4	-	4	-	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Huron County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	34,951	Total Live Births:	416	Total Deaths:	417
Rank Among Counties:	44	Teenage Mothers:	37	Infant Deaths:	5
Per Square Mile:	42.1	Low Weight Births:	19	Neonatal Deaths:	4
		First Births:	148	Postneonatal Deaths:	1
				Perinatal Deaths:	10
				Fetal Deaths:	6
MARRIAGE		DIVORCE			
Marriages:	263	Divorces:	122		
Marriage Rate:	15.0	Divorce Rate:	7.0		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	416	11.9	410	11.8	-	-	4	*
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	37	88.9	36	87.8	-	-	-	-
Low Weight	19	45.7	18	43.9	-	-	1	*
Under 1,500 Grams	3	*	3	*	-	-	-	-
< 38 Weeks Gestation	57	137.0	56	136.6	-	-	1	*
Prenatal Care Began in 1st Trimester	343	824.5	339	826.8	-	-	3	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	5	*	5	*	-	-	-	-
Neonatal Deaths	4	*	4	*	-	-	-	-
Postneonatal Deaths	1	*	1	*	-	-	-	-
Perinatal Deaths	10	23.7	10	24.0	-	-	-	-
Fetal Deaths	6	14.2	6	14.4	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	417	222	195	417	222	195	-	-	-	-	-	-	
Mortality Rate	11.9	13.0	10.9	12.0	13.0	11.0	-	-	-	-	-	-	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	5	3	2	-	5	2	2	8	9	18	58	305	-
White Male	2	2	1	-	5	1	2	5	5	12	37	150	-
White Female	3	1	1	-	-	1	-	3	4	6	21	155	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

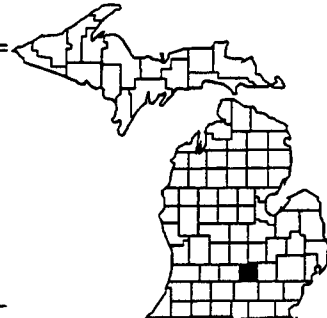
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	417	1,193.1	417	1,199.1	-	-	10	103.0
Diseases of the Heart	159	454.9	159	457.2	-	-	-	-
Malignant Neoplasms	92	263.2	92	264.6	-	-	-	-
Cerebrovascular Diseases	44	125.9	44	126.5	-	-	-	-
Accidents and Adverse Effects	16	45.8	16	46.0	-	-	4	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	14	40.1	14	40.3	-	-	-	-
Pneumonia and Influenza	9	25.8	9	25.9	-	-	-	-
Diabetes Mellitus	10	28.6	10	28.8	-	-	-	-
Chronic Liver Disease and Cirrhosis	7	20.0	7	20.1	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	7	20.0	7	20.1	-	-	2	*
Atherosclerosis	7	20.0	7	20.1	-	-	-	-
AIDS	1	*	1	*	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Ingham County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	281,912	Total Live Births:	4,297	Total Deaths:	1,837
Rank Among Counties:	7	Teenage Mothers:	558	Infant Deaths:	30
Per Square Mile:	503.7	Low Weight Births:	260	Neonatal Deaths:	13
		First Births:	1,772	Postneonatal Deaths:	17
				Perinatal Deaths:	27
				Fetal Deaths:	15
MARRIAGE		DIVORCE			
Marriages:	2,478	Divorces:	1,203		
Marriage Rate:	17.6	Divorce Rate:	8.5		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	4,297	15.2	3,554	14.6	615	21.7	119	12.1
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	558	129.9	402	113.1	143	232.5	11	92.4
Low Weight	260	60.5	177	49.8	79	128.5	4	.
Under 1,500 Grams	52	12.1	27	7.6	25	40.7	-	-
< 38 Weeks Gestation	680	158.2	493	138.7	160	260.2	23	193.3
Prenatal Care Began in 1st Trimester	3,385	787.8	2,893	814.0	412	669.9	76	638.7

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	30	7.0	18	5.1	11	17.9	1	.
Neonatal Deaths	13	3.0	6	1.7	6	9.8	1	.
Postneonatal Deaths	17	4.0	12	3.4	5	.	-	-
Perinatal Deaths	27	6.3	16	4.5	9	14.6	2	.
Fetal Deaths	15	3.5	11	3.1	3	.	1	.

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	1,837	876	961	1,681	797	884	139	71	68	15	7	8	
Mortality Rate	6.5	6.5	6.6	6.9	6.8	7.0	4.9	5.3	4.6	1.5	1.4	1.6	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	30	9	8	3	13	18	13	59	84	147	277	1,176	-
White Male	11	6	5	-	5	11	4	29	47	80	145	454	-
White Female	7	1	2	2	3	4	4	18	25	52	103	663	-
Black Male	4	-	1	1	3	3	3	7	6	8	14	21	-
Black Female	7	1	-	-	2	-	1	5	4	5	12	31	-
Other Male	1	-	-	-	-	-	-	-	-	2	1	3	-
Other Female	-	-	-	-	-	-	-	-	2	-	2	4	-

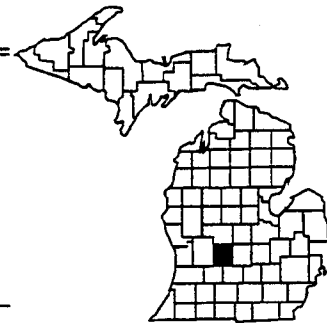
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	1,837	651.6	1,681	689.6	139	491.0	33	40.5
Diseases of the Heart	593	210.3	552	226.5	38	134.2	1	.
Malignant Neoplasms	472	167.4	439	180.1	30	106.0	5	.
Cerebrovascular Diseases	108	38.3	99	40.6	8	28.3	-	-
Accidents and Adverse Effects	73	25.9	59	24.2	13	45.9	18	22.1
Chronic Obstructive Pulmonary Diseases and Allied Conditions	82	29.1	81	33.2	1	.	-	-
Pneumonia and Influenza	68	24.1	62	25.4	5	.	-	-
Diabetes Mellitus	46	16.3	40	16.4	6	21.2	-	-
Chronic Liver Disease and Cirrhosis	9	3.2	8	3.3	1	.	-	-
Homicide	11	3.9	7	2.9	4	.	1	.
Suicide	28	9.9	25	10.3	2	.	3	.
Atherosclerosis	15	5.3	13	5.3	-	-	-	-
AIDS	14	5.0	13	5.3	1	.	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Ionia County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	57,024	Total Live Births:	813	Total Deaths:	388
Rank Among Counties:	30	Teenage Mothers:	116	Infant Deaths:	7
Per Square Mile:	98.8	Low Weight Births:	56	Neonatal Deaths:	6
		First Births:	315	Postneonatal Deaths:	1
				Perinatal Deaths:	11
				Fetal Deaths:	6
MARRIAGE		DIVORCE			
Marriages:	485	Divorces:	248		
Marriage Rate:	17.0	Divorce Rate:	8.7		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	813	14.3	803	15.0	3	*	6	17.0
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	116	142.7	112	139.5	1	*	3	*
Low Weight	56	68.9	56	69.7	-	-	-	-
Under 1,500 Grams	10	12.3	10	12.5	-	-	-	-
< 38 Weeks Gestation	147	180.8	145	180.6	1	*	1	*
Prenatal Care Began in 1st Trimester	658	809.3	651	810.7	2	*	4	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	7	8.6	7	8.7	-	-	-	-
Neonatal Deaths	6	7.4	6	7.5	-	-	-	-
Postneonatal Deaths	1	*	1	*	-	-	-	-
Perinatal Deaths	11	13.4	11	13.6	-	-	-	-
Fetal Deaths	6	7.3	6	7.4	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	388	211	177	381	208	173	2	-	2	5	3	2	
Mortality Rate	6.8	6.9	6.6	7.1	7.6	6.6	*	-	*	*	*	*	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	7	2	3	1	3	3	5	7	23	32	53	249	-
White Male	5	1	1	1	3	3	4	4	17	22	37	110	-
White Female	2	1	2	-	-	-	1	2	5	10	12	138	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	1	-	-	-	1	-
Other Male	-	-	-	-	-	-	-	-	-	-	3	-	-
Other Female	-	-	-	-	-	-	-	-	1	-	1	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	388	680.4	381	710.0	2	*	9	51.5
Diseases of the Heart	137	240.2	135	251.6	1	*	-	-
Malignant Neoplasms	94	164.8	92	171.4	1	*	2	*
Cerebrovascular Diseases	18	31.6	17	31.7	-	-	-	-
Accidents and Adverse Effects	22	38.6	22	41.0	-	-	6	34.3
Chronic Obstructive Pulmonary Diseases and Allied Conditions	14	24.6	13	24.2	-	-	-	-
Pneumonia and Influenza	9	15.8	9	16.8	-	-	-	-
Diabetes Mellitus	9	15.8	9	16.8	-	-	-	-
Chronic Liver Disease and Cirrhosis	4	*	4	*	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	3	*	3	*	-	-	-	-
Atherosclerosis	5	*	5	*	-	-	-	-
AIDS	2	*	2	*	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Iosco County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	30,209	Total Live Births:	474	Total Deaths:	306
Rank Among Counties:	47	Teenage Mothers:	53	Infant Deaths:	-
Per Square Mile:	55.3	Low Weight Births:	11	Neonatal Deaths:	-
		First Births:	171	Postneonatal Deaths:	-
				Perinatal Deaths:	-
				Fetal Deaths:	-
MARRIAGE		DIVORCE			
Marriages:	288	Divorces:	184		
Marriage Rate:	19.1	Divorce Rate:	12.2		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	474	15.7	452	15.5	7	11.0	15	29.9
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	53	111.8	49	108.4	2	-	2	-
Low Weight	11	23.2	11	24.3	-	-	-	-
Under 1,500 Grams	1	-	1	-	-	-	-	-
< 38 Weeks Gestation	54	113.9	51	112.8	2	-	1	-
Prenatal Care Began in 1st Trimester	372	784.8	356	787.6	5	-	11	733.3

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	-	-	-	-	-	-	-	-
Neonatal Deaths	-	-	-	-	-	-	-	-
Postneonatal Deaths	-	-	-	-	-	-	-	-
Perinatal Deaths	-	-	-	-	-	-	-	-
Fetal Deaths	-	-	-	-	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	306	160	146	297	155	142	1	1	-	8	4	4	
Mortality Rate	10.1	10.6	9.7	10.2	10.7	9.8	-	-	-	16.0	-	-	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	-	-	-	1	-	1	1	9	8	22	61	203	-
White Male	-	-	-	-	-	-	1	7	5	13	35	94	-
White Female	-	-	-	1	-	1	-	1	2	8	24	105	-
Black Male	-	-	-	-	-	-	-	-	-	1	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	1	-	-	2	1	-
Other Female	-	-	-	-	-	-	-	-	1	-	-	3	-

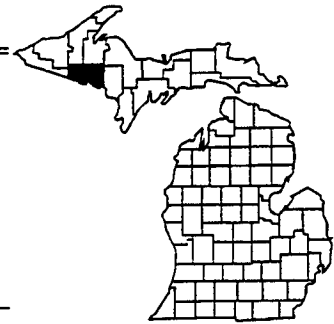
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	306	1,012.9	297	1,021.6	1	-	1	-
Diseases of the Heart	107	354.2	106	364.6	-	-	-	-
Malignant Neoplasms	86	284.7	85	292.4	-	-	-	-
Cerebrovascular Diseases	22	72.8	21	72.2	-	-	-	-
Accidents and Adverse Effects	11	36.4	10	34.4	-	-	-	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	17	56.3	16	55.0	-	-	-	-
Pneumonia and Influenza	6	19.9	5	-	-	-	-	-
Diabetes Mellitus	7	23.2	6	20.6	-	-	-	-
Chronic Liver Disease and Cirrhosis	2	-	1	-	-	-	-	-
Homicide	1	-	1	-	-	-	-	-
Suicide	4	-	4	-	-	-	-	-
Atherosclerosis	7	23.2	7	24.1	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Iron County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	13,175	Total Live Births:	111	Total Deaths:	222
Rank Among Counties:	69	Teenage Mothers:	11	Infant Deaths:	1
Per Square Mile:	11.3	Low Weight Births:	4	Neonatal Deaths:	-
		First Births:	38	Postneonatal Deaths:	1
				Perinatal Deaths:	-
				Fetal Deaths:	-
MARRIAGE		DIVORCE			
Marriages:	85	Divorces:	64		
Marriage Rate:	12.9	Divorce Rate:	9.7		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	111	8.4	108	8.3	-	-	3	-
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	11	99.1	10	92.6	-	-	1	-
Low Weight	4	-	4	-	-	-	-	-
Under 1,500 Grams	-	-	-	-	-	-	-	-
< 38 Weeks Gestation	13	117.1	13	120.4	-	-	-	-
Prenatal Care Began in 1st Trimester	91	819.8	89	824.1	-	-	2	-

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	1	-	-	-	-	-	1	-
Neonatal Deaths	-	-	-	-	-	-	-	-
Postneonatal Deaths	1	-	-	-	-	-	1	-
Perinatal Deaths	-	-	-	-	-	-	-	-
Fetal Deaths	-	-	-	-	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	222	104	118	220	104	116	-	-	-	2	-	2	
Mortality Rate	16.9	16.5	17.2	16.9	16.6	17.1	-	-	-	-	-	-	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	1	-	-	-	1	-	-	2	9	10	34	165	-
White Male	-	-	-	-	1	-	-	1	6	3	19	74	-
White Female	-	-	-	-	-	-	-	1	3	7	14	91	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	1	-	-	-	-	-	-	-	-	-	1	-	-

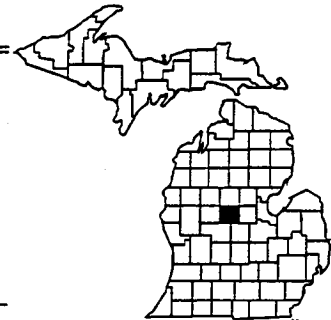
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	222	1,685.0	220	1,687.5	-	-	1	-
Diseases of the Heart	66	500.9	66	506.3	-	-	-	-
Malignant Neoplasms	60	455.4	59	452.6	-	-	-	-
Cerebrovascular Diseases	16	121.4	16	122.7	-	-	-	-
Accidents and Adverse Effects	8	60.7	8	61.4	-	-	1	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	11	83.5	11	84.4	-	-	-	-
Pneumonia and Influenza	14	106.3	14	107.4	-	-	-	-
Diabetes Mellitus	7	53.1	7	53.7	-	-	-	-
Chronic Liver Disease and Cirrhosis	2	-	2	-	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	1	-	1	-	-	-	-	-
Atherosclerosis	3	-	3	-	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Isabella County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	54,624	Total Live Births:	709	Total Deaths:	344
Rank Among Counties:	32	Teenage Mothers:	81	Infant Deaths:	8
Per Square Mile:	94.7	Low Weight Births:	35	Neonatal Deaths:	4
		First Births:	292	Postneonatal Deaths:	4
				Perinatal Deaths:	7
				Fetal Deaths:	4
MARRIAGE		DIVORCE			
Marriages:	400	Divorces:	180		
Marriage Rate:	14.6	Divorce Rate:	6.6		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	709	13.0	681	13.0	3	.	25	16.6
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	81	114.2	75	110.1	2	.	4	.
Low Weight	35	49.4	34	49.9	-	-	1	.
Under 1,500 Grams	5	.	5	.	-	-	-	-
< 38 Weeks Gestation	107	150.9	100	146.8	-	-	7	280.0
Prenatal Care Began in 1st Trimester	564	795.5	544	798.8	1	.	19	760.0

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	8	11.3	7	10.3	-	-	1	.
Neonatal Deaths	4	.	4	.	-	-	-	-
Postneonatal Deaths	4	.	3	.	-	-	1	.
Perinatal Deaths	7	9.8	7	10.2	-	-	-	-
Fetal Deaths	4	.	4	.	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	344	177	167	333	171	162	1	-	1	10	6	4	
Mortality Rate	6.3	6.8	5.9	6.3	6.8	5.9	.	-	.	6.6	8.1	.	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	8	2	1	1	2	7	6	6	15	25	54	217	-
White Male	5	1	1	1	2	4	3	4	9	17	28	96	-
White Female	2	1	-	-	-	1	3	2	6	6	25	116	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	1	-
Other Male	-	-	-	-	-	2	-	-	-	2	1	1	-
Other Female	1	-	-	-	-	-	-	-	-	-	-	3	-

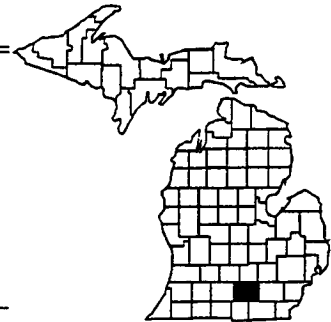
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	344	629.8	333	634.5	1	.	6	35.6
Diseases of the Heart	124	227.0	121	230.6	-	-	-	-
Malignant Neoplasms	83	151.9	81	154.3	-	-	-	-
Cerebrovascular Diseases	19	34.8	18	34.3	1	.	-	-
Accidents and Adverse Effects	22	40.3	19	36.2	-	-	4	.
Chronic Obstructive Pulmonary Diseases and Allied Conditions	7	12.8	7	13.3	-	-	-	-
Pneumonia and Influenza	14	25.6	13	24.8	-	-	-	-
Diabetes Mellitus	11	20.1	10	19.1	-	-	-	-
Chronic Liver Disease and Cirrhosis	2	.	2	.	-	-	-	-
Homicide	2	.	2	.	-	-	-	-
Suicide	4	.	4	.	-	-	-	-
Atherosclerosis	7	12.8	7	13.3	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Jackson County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	149,756	Total Live Births:	2,188	Total Deaths:	1,292
Rank Among Counties:	13	Teenage Mothers:	357	Infant Deaths:	20
Per Square Mile:	212.5	Low Weight Births:	141	Neonatal Deaths:	11
		First Births:	871	Postneonatal Deaths:	9
				Perinatal Deaths:	39
				Fetal Deaths:	29
MARRIAGE		DIVORCE			
Marriages:	1,284	Divorces:	908		
Marriage Rate:	17.1	Divorce Rate:	12.1		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	2,188	14.6	1,962	14.4	210	17.4	14	10.5
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	357	163.2	296	150.9	57	271.4	4	.
Low Weight	141	64.4	117	59.6	21	100.0	3	.
Under 1,500 Grams	38	17.4	33	16.8	3	.	2	.
< 38 Weeks Gestation	333	152.2	280	142.7	49	233.3	3	.
Prenatal Care Began in 1st Trimester	1,618	739.5	1,486	757.4	121	576.2	10	714.3

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	20	9.1	17	8.7	3	.	-	-
Neonatal Deaths	11	5.0	10	5.1	1	.	-	-
Postneonatal Deaths	9	4.1	7	3.6	2	.	-	-
Perinatal Deaths	39	17.6	30	15.1	9	41.3	-	-
Fetal Deaths	29	13.1	21	10.6	8	36.7	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	1,292	688	604	1,198	627	571	87	56	31	6	4	2	
Mortality Rate	8.6	9.0	8.2	8.8	9.3	8.3	7.2	7.2	7.3	4.5	.	.	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	20	3	1	1	8	10	12	39	48	89	217	844	-
White Male	10	1	1	1	4	7	6	24	28	54	120	371	-
White Female	7	1	-	-	3	2	1	7	12	22	78	438	-
Black Male	1	1	-	-	1	1	4	7	4	8	13	16	-
Black Female	2	-	-	-	-	-	1	1	2	3	4	18	-
Other Male	-	-	-	-	-	-	-	-	1	1	1	1	-
Other Female	-	-	-	-	-	-	-	-	1	-	1	-	-

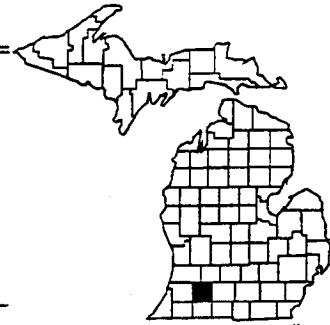
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	1,292	862.7	1,198	878.5	87	721.5	13	32.1
Diseases of the Heart	439	293.1	420	308.0	16	132.7	-	-
Malignant Neoplasms	302	201.7	280	205.3	21	174.1	2	.
Cerebrovascular Diseases	82	54.8	81	59.4	1	.	-	-
Accidents and Adverse Effects	49	32.7	40	29.3	8	66.3	7	17.3
Chronic Obstructive Pulmonary Diseases and Allied Conditions	77	51.4	74	54.3	3	.	-	-
Pneumonia and Influenza	53	35.4	49	35.9	4	.	-	-
Diabetes Mellitus	27	18.0	22	16.1	5	.	-	-
Chronic Liver Disease and Cirrhosis	9	6.0	8	5.9	1	.	-	-
Homicide	5	.	3	.	2	.	-	-
Suicide	25	16.7	23	16.9	2	.	2	.
Atherosclerosis	12	8.0	11	8.1	1	.	-	-
AIDS	9	6.0	3	.	6	49.8	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Kalamazoo County



POPULATION

As of April 1, 1990: 223,411
 Rank Among Counties: 8
 Per Square Mile: 397.5

NATALITY

Total Live Births: 3,307
 Teenage Mothers: 406
 Low Weight Births: 240
 First Births: 1,357

MORTALITY

Total Deaths: 1,671
 Infant Deaths: 33
 Neonatal Deaths: 21
 Postneonatal Deaths: 12
 Perinatal Deaths: 45
 Fetal Deaths: 24

MARRIAGE

Marriages: 1,821
 Marriage Rate: 16.3

DIVORCE

Divorces: 1,088
 Divorce Rate: 9.7

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	3,307	14.8	2,727	13.7	535	26.6	43	10.1
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	406	122.8	264	96.8	139	259.8	3	.
Low Weight	240	72.6	165	60.5	72	134.6	3	.
Under 1,500 Grams	48	14.5	32	11.7	15	28.0	1	.
< 38 Weeks Gestation	519	156.9	391	143.4	119	222.4	9	209.3
Prenatal Care Began in 1st Trimester	2,704	817.7	2,327	853.3	341	637.4	35	814.0

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	33	10.0	18	6.6	15	28.0	-	-
Neonatal Deaths	21	6.4	14	5.1	7	13.1	-	-
Postneonatal Deaths	12	3.6	4	.	8	15.0	-	-
Perinatal Deaths	45	13.5	36	13.1	9	16.8	-	-
Fetal Deaths	24	7.2	22	8.0	2	.	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	1,671	810	861	1,545	737	808	116	70	46	10	3	7	
Mortality Rate	7.5	7.5	7.4	7.8	7.7	7.8	5.8	7.3	4.4	2.3	.	3.4	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	33	5	5	4	9	15	16	47	54	128	263	1092	-
White Male	7	2	2	2	8	8	9	20	31	63	146	439	-
White Female	11	1	2	1	1	1	5	17	14	50	98	607	-
Black Male	12	-	-	1	-	1	2	9	6	9	10	20	-
Black Female	3	1	1	-	-	3	-	1	3	4	7	23	-
Other Male	-	-	-	-	-	1	-	-	-	-	1	1	-
Other Female	-	1	-	-	-	1	-	-	-	2	1	2	-

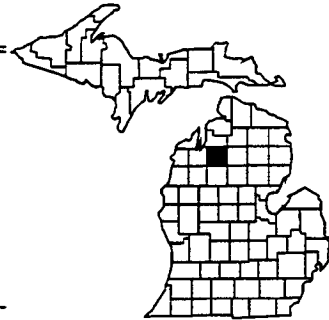
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	1,671	747.9	1,545	776.1	116	577.5	23	37.2
Diseases of the Heart	511	228.7	482	242.1	27	134.4	1	.
Malignant Neoplasms	401	179.5	371	186.4	25	124.5	3	.
Cerebrovascular Diseases	114	51.0	104	52.2	10	49.8	-	-
Accidents and Adverse Effects	63	28.2	57	28.6	5	.	5	.
Chronic Obstructive Pulmonary Diseases and Allied Conditions	85	38.0	82	41.2	3	.	2	.
Pneumonia and Influenza	85	38.0	83	41.7	2	.	-	-
Diabetes Mellitus	35	15.7	30	15.1	5	.	-	-
Chronic Liver Disease and Cirrhosis	19	8.5	16	8.0	3	.	-	-
Homicide	4	.	3	.	1	.	-	-
Suicide	19	8.5	19	9.5	-	-	3	.
Atherosclerosis	15	6.7	13	6.5	2	.	-	-
AIDS	11	4.9	9	4.5	2	.	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Kalkaska County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	13,497	Total Live Births:	199	Total Deaths:	104
Rank Among Counties:	68	Teenage Mothers:	35	Infant Deaths:	1
Per Square Mile:	24.0	Low Weight Births:	5	Neonatal Deaths:	-
		First Births:	81	Postneonatal Deaths:	1
				Perinatal Deaths:	-
				Fetal Deaths:	-
MARRIAGE		DIVORCE			
Marriages:	117	Divorces:	63		
Marriage Rate:	17.3	Divorce Rate:	9.3		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	199	14.7	196	14.7	-	-	3	-
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	35	175.9	35	178.6	-	-	-	-
Low Weight	5	-	5	-	-	-	-	-
Under 1,500 Grams	1	-	1	-	-	-	-	-
< 38 Weeks Gestation	26	130.7	25	127.6	-	-	1	-
Prenatal Care Began in 1st Trimester	126	633.2	125	637.8	-	-	1	-

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	1	-	1	-	-	-	-	-
Neonatal Deaths	-	-	-	-	-	-	-	-
Postneonatal Deaths	1	-	1	-	-	-	-	-
Perinatal Deaths	-	-	-	-	-	-	-	-
Fetal Deaths	-	-	-	-	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	104	58	46	104	58	46	-	-	-	-	-	-	
Mortality Rate	7.7	8.6	6.8	7.8	8.7	6.9	-	-	-	-	-	-	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	1	-	1	2	1	-	-	6	3	5	16	69	-
White Male	1	-	1	2	1	-	-	4	3	2	9	35	-
White Female	-	-	-	-	-	-	-	2	-	3	7	34	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

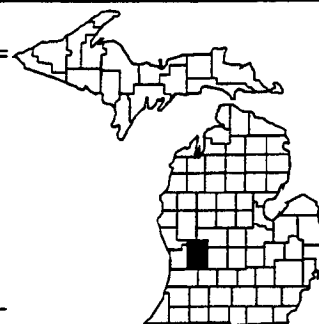
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	104	770.5	104	779.2	-	-	4	-
Diseases of the Heart	40	296.4	40	299.7	-	-	-	-
Malignant Neoplasms	22	163.0	22	164.8	-	-	-	-
Cerebrovascular Diseases	7	51.9	7	52.4	-	-	-	-
Accidents and Adverse Effects	4	-	4	-	-	-	2	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	4	-	4	-	-	-	-	-
Pneumonia and Influenza	-	-	-	-	-	-	-	-
Diabetes Mellitus	3	-	3	-	-	-	-	-
Chronic Liver Disease and Cirrhosis	-	-	-	-	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	2	-	2	-	-	-	1	-
Atherosclerosis	7	51.9	7	52.4	-	-	-	-
AIDS	2	-	2	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Kent County



POPULATION

As of April 1, 1990: 500,631
 Rank Among Counties: 4
 Per Square Mile: 580.9

NATALITY

Total Live Births: 9,081
 Teenage Mothers: 1,055
 Low Weight Births: 577
 First Births: 3,480

MORTALITY

Total Deaths: 3,496
 Infant Deaths: 74
 Neonatal Deaths: 45
 Postneonatal Deaths: 29
 Perinatal Deaths: 71
 Fetal Deaths: 32

MARRIAGE

Marriages: 4,703
 Marriage Rate: 18.8

DIVORCE

Divorces: 2,357
 Divorce Rate: 9.4

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	9,081	18.1	7,879	17.5	1,078	26.1	121	14.0
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	1,055	116.2	702	89.1	336	311.7	15	124.0
Low Weight	577	63.5	417	52.9	153	141.9	6	49.6
Under 1,500 Grams	111	12.2	72	9.1	37	34.3	2	*
< 38 Weeks Gestation	1,415	155.8	1,115	141.5	275	255.1	24	198.3
Prenatal Care Began in 1st Trimester	7,390	813.8	6,659	845.2	635	589.1	93	768.6

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	74	8.1	53	6.7	19	17.6	2	*
Neonatal Deaths	45	5.0	30	3.8	14	13.0	1	*
Postneonatal Deaths	29	3.2	23	2.9	5	*	1	*
Perinatal Deaths	71	7.8	50	6.3	18	16.6	1	*
Fetal Deaths	32	3.5	25	3.2	5	*	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	3,496	1,704	1,792	3,215	1,548	1,667	256	141	115	24	14	10	
Mortality Rate	7.0	7.0	6.9	7.1	7.1	7.2	6.2	7.1	5.3	2.8	3.3	2.3	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	74	13	6	4	22	25	28	95	161	232	538	2,298	-
White Male	33	6	2	3	12	19	15	53	84	107	287	927	-
White Female	20	-	1	1	7	4	10	26	49	88	194	1,267	-
Black Male	10	4	3	-	-	1	2	9	20	18	25	49	-
Black Female	9	3	-	-	3	-	1	6	7	12	25	49	-
Other Male	1	-	-	-	-	1	-	1	1	6	3	1	-
Other Female	1	-	-	-	-	-	-	-	-	1	4	4	-

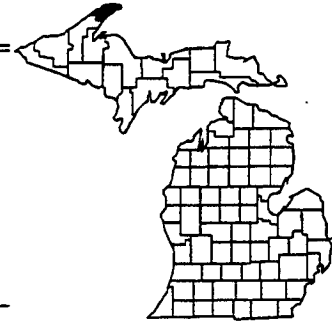
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	3,496	698.3	3,215	713.5	256	619.0	45	30.5
Diseases of the Heart	1,094	218.5	1,025	227.5	60	145.1	1	*
Malignant Neoplasms	846	169.0	778	172.6	62	149.9	2	*
Cerebrovascular Diseases	233	46.5	222	49.3	11	26.6	-	-
Accidents and Adverse Effects	137	27.4	120	26.6	17	41.1	23	15.6
Chronic Obstructive Pulmonary Diseases and Allied Conditions	147	29.4	139	30.8	8	19.3	-	-
Pneumonia and Influenza	165	33.0	159	35.3	6	14.5	-	-
Diabetes Mellitus	79	15.8	66	14.6	11	26.6	-	-
Chronic Liver Disease and Cirrhosis	26	5.2	23	5.1	2	*	-	-
Homicide	21	4.2	10	2.2	10	24.2	3	*
Suicide	49	9.8	47	10.4	2	*	3	*
Atherosclerosis	30	6.0	26	5.8	4	*	-	-
AIDS	33	6.6	30	6.7	3	*	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Keweenaw County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	1,701	Total Live Births:	20	Total Deaths:	30
Rank Among Counties:	83	Teenage Mothers:	2	Infant Deaths:	-
Per Square Mile:	3.1	Low Weight Births:	1	Neonatal Deaths:	-
		First Births:	6	Postneonatal Deaths:	-
				Perinatal Deaths:	-
				Fetal Deaths:	-
MARRIAGE		DIVORCE			
Marriages:	17	Divorces:	8		
Marriage Rate:	20.0	Divorce Rate:	9.4		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	20	11.8	20	11.8	-	-	-	-
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	2	.	2	.	-	-	-	-
Low Weight	1	.	1	.	-	-	-	-
Under 1,500 Grams	-	-	-	-	-	-	-	-
< 38 Weeks Gestation	3	.	3	.	-	-	-	-
Prenatal Care Began in 1st Trimester	12	600.0	12	600.0	-	-	-	-

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	-	-	-	-	-	-	-	-
Neonatal Deaths	-	-	-	-	-	-	-	-
Postneonatal Deaths	-	-	-	-	-	-	-	-
Perinatal Deaths	-	-	-	-	-	-	-	-
Fetal Deaths	-	-	-	-	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	30	14	16	30	14	16	-	-	-	-	-	-	
Mortality Rate	17.6	16.7	18.5	17.8	16.8	18.6	-	-	-	-	-	-	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	-	-	-	-	-	-	-	-	-	5	4	21	-
White Male	-	-	-	-	-	-	-	-	-	1	3	10	-
White Female	-	-	-	-	-	-	-	-	-	4	1	11	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

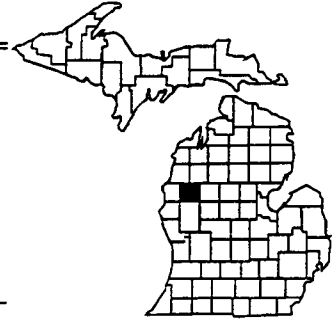
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	30	1,763.7	30	1,775.1	-	-	-	-
Diseases of the Heart	15	881.8	15	887.6	-	-	-	-
Malignant Neoplasms	5	.	5	.	-	-	-	-
Cerebrovascular Diseases	4	.	4	.	-	-	-	-
Accidents and Adverse Effects	-	-	-	-	-	-	-	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	1	.	1	.	-	-	-	-
Pneumonia and Influenza	2	.	2	.	-	-	-	-
Diabetes Mellitus	-	-	-	-	-	-	-	-
Chronic Liver Disease and Cirrhosis	-	-	-	-	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	2	.	2	.	-	-	-	-
Atherosclerosis	-	-	-	-	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Lake County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	8,583	Total Live Births:	107	Total Deaths:	129
Rank Among Counties:	78	Teenage Mothers:	22	Infant Deaths:	2
Per Square Mile:	15.1	Low Weight Births:	12	Neonatal Deaths:	2
		First Births:	43	Postneonatal Deaths:	-
				Perinatal Deaths:	3
				Fetal Deaths:	1
MARRIAGE		DIVORCE			
Marriages:	81	Divorces:	42		
Marriage Rate:	18.9	Divorce Rate:	9.8		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	107	12.5	86	11.7	18	15.7	1	*
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	22	205.6	16	186.0	5	*	1	*
Low Weight	12	112.1	10	116.3	2	-	-	-
Under 1,500 Grams	-	-	-	-	-	-	-	-
< 38 Weeks Gestation	25	233.6	21	244.2	3	*	-	-
Prenatal Care Began in 1st Trimester	62	579.4	54	627.9	6	333.3	1	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	2	*	2	*	-	-	-	-
Neonatal Deaths	2	*	2	*	-	-	-	-
Postneonatal Deaths	-	-	-	-	-	-	-	-
Perinatal Deaths	3	*	2	*	-	-	1	*
Fetal Deaths	1	*	-	-	-	-	1	*

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	129	72	57	104	59	45	21	9	12	3	3	-	
Mortality Rate	15.0	17.2	13.0	14.2	16.2	12.1	18.3	17.5	19.0	*	*	-	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	2	2	-	-	-	2	3	8	5	31	76	-	
White Male	1	-	-	-	-	-	2	6	3	18	29	-	
White Female	1	-	-	-	-	1	1	1	2	9	30	-	
Black Male	-	2	-	-	-	1	-	1	-	1	4	-	
Black Female	-	-	-	-	-	-	-	-	-	2	10	-	
Other Male	-	-	-	-	-	-	-	-	-	1	2	-	
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	

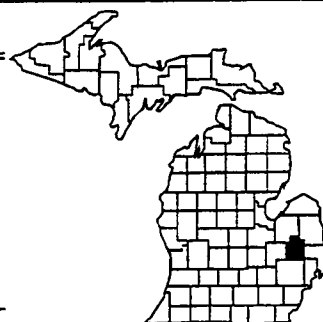
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	129	1,503.0	104	1,415.5	21	1,832.5	2	*
Diseases of the Heart	48	559.2	40	544.4	8	698.1	-	-
Malignant Neoplasms	44	512.6	38	517.2	4	*	-	-
Cerebrovascular Diseases	7	81.6	5	*	2	*	-	-
Accidents and Adverse Effects	2	*	2	*	-	-	-	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	7	81.6	6	81.7	-	-	-	-
Pneumonia and Influenza	1	*	1	*	-	-	-	-
Diabetes Mellitus	2	*	1	*	1	*	-	-
Chronic Liver Disease and Cirrhosis	-	-	-	-	-	-	-	-
Homicide	3	*	-	-	3	*	2	*
Suicide	2	*	2	*	-	-	-	-
Atherosclerosis	1	*	1	*	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Lapeer County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	74,768	Total Live Births:	1,016	Total Deaths:	504
Rank Among Counties:	23	Teenage Mothers:	91	Infant Deaths:	11
Per Square Mile:	113.6	Low Weight Births:	60	Neonatal Deaths:	6
		First Births:	387	Postneonatal Deaths:	5
				Perinatal Deaths:	12
				Fetal Deaths:	6
MARRIAGE		DIVORCE			
Marriages:	641	Divorces:	381		
Marriage Rate:	17.1	Divorce Rate:	10.2		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	1,016	13.6	1,006	13.7	1	*	8	13.1
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	91	89.6	91	90.5	-	-	-	-
Low Weight	60	59.1	60	59.6	-	-	-	-
Under 1,500 Grams	11	10.8	11	10.9	-	-	-	-
< 38 Weeks Gestation	162	159.4	161	160.0	-	-	1	*
Prenatal Care Began in 1st Trimester	804	791.3	799	794.2	1	*	4	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	11	10.8	11	10.9	-	-	-	-
Neonatal Deaths	6	5.9	6	6.0	-	-	-	-
Postneonatal Deaths	5	*	5	*	-	-	-	-
Perinatal Deaths	12	11.7	12	11.9	-	-	-	-
Fetal Deaths	6	5.9	6	5.9	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	504	284	220	497	279	218	1	1	-	6	4	2	
Mortality Rate	6.7	7.6	5.9	6.7	7.6	5.9	*	*	-	9.8	*	*	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	11	1	-	2	3	5	8	20	25	34	103	292	-
White Male	6	1	-	1	1	3	7	12	15	20	57	156	-
White Female	5	-	-	1	2	2	1	8	8	14	43	134	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	1	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	2	-	2	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	1	1	-

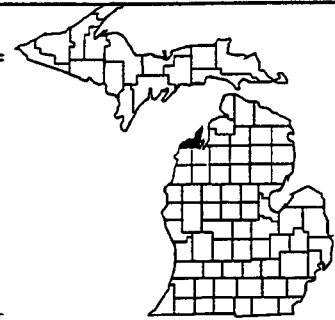
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	504	674.1	497	674.6	1	*	6	25.6
Diseases of the Heart	175	234.1	170	230.8	1	*	-	-
Malignant Neoplasms	127	169.9	126	171.0	-	-	-	-
Cerebrovascular Diseases	39	52.2	39	52.9	-	-	-	-
Accidents and Adverse Effects	28	37.4	28	38.0	-	-	5	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	21	28.1	21	28.5	-	-	1	*
Pneumonia and Influenza	20	26.7	20	27.1	-	-	-	-
Diabetes Mellitus	14	18.7	13	17.6	-	-	-	-
Chronic Liver Disease and Cirrhosis	6	8.0	6	8.1	-	-	-	-
Homicide	2	*	2	*	-	-	-	-
Suicide	4	*	4	*	-	-	-	-
Atherosclerosis	3	*	3	*	-	-	-	-
AIDS	2	*	2	*	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Leelanau County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	16,527	Total Live Births:	216	Total Deaths:	132
Rank Among Counties:	65	Teenage Mothers:	18	Infant Deaths:	2
Per Square Mile:	48.4	Low Weight Births:	9	Neonatal Deaths:	1
		First Births:	77	Postneonatal Deaths:	1
				Perinatal Deaths:	2
				Fetal Deaths:	1
MARRIAGE		DIVORCE			
Marriages:	95	Divorces:	57		
Marriage Rate:	11.5	Divorce Rate:	6.9		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	216	13.1	202	12.5	1	-	13	25.9
Teenage Mothers	18	83.3	13	64.4	1	-	4	-
Low Weight	9	41.7	9	44.6	-	-	-	-
Under 1,500 Grams	2	-	2	-	-	-	-	-
< 38 Weeks Gestation	28	129.6	27	133.7	-	-	1	-
Prenatal Care Began in 1st Trimester	164	759.3	160	792.1	1	-	3	-

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	2	-	1	-	-	-	1	-
Neonatal Deaths	1	-	1	-	-	-	-	-
Postneonatal Deaths	1	-	-	-	-	-	1	-
Perinatal Deaths	2	-	2	-	-	-	-	-
Fetal Deaths	1	-	1	-	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	132	71	61	129	68	61	-	-	-	3	3	-	
Mortality Rate	8.0	8.6	7.4	8.1	8.5	7.6	-	-	-	-	-	-	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	2	-	1	-	-	1	-	1	-	8	22	97	-
White Male	-	-	-	-	-	1	-	-	-	3	13	50	-
White Female	1	-	-	-	-	-	-	1	-	5	8	46	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	1	-	-	-	-	-	-	-	-	-	1	1	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

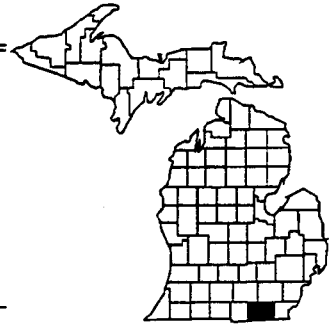
LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	132	798.7	129	805.8	-	-	1	-
Diseases of the Heart	44	266.2	43	268.6	-	-	-	-
Malignant Neoplasms	28	169.4	28	174.9	-	-	-	-
Cerebrovascular Diseases	6	36.3	6	37.5	-	-	-	-
Accidents and Adverse Effects	6	36.3	6	37.5	-	-	1	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	10	60.5	10	62.5	-	-	-	-
Pneumonia and Influenza	9	54.5	8	50.0	-	-	-	-
Diabetes Mellitus	4	-	4	-	-	-	-	-
Chronic Liver Disease and Cirrhosis	2	-	2	-	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	1	-	1	-	-	-	-	-
Atherosclerosis	2	-	2	-	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Profile of Lenawee County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	91,476	Total Live Births:	1,247	Total Deaths:	783
Rank Among Counties:	20	Teenage Mothers:	178	Infant Deaths:	6
Per Square Mile:	121.6	Low Weight Births:	73	Neonatal Deaths:	5
		First Births:	482	Postneonatal Deaths:	1
				Perinatal Deaths:	12
				Fetal Deaths:	7
MARRIAGE		DIVORCE			
Marriages:	631	Divorces:	466		
Marriage Rate:	13.8	Divorce Rate:	10.2		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	1,247	13.6	1,219	13.7	15	10.2	9	10.7
Teenage Mothers	178	142.7	166	136.2	10	666.7	1	.
Low Weight	73	58.5	69	56.6	2	.	2	.
Under 1,500 Grams	11	8.8	10	8.2	1	.	.	.
< 38 Weeks Gestation	174	139.5	169	138.6	3	.	2	.
Prenatal Care Began in 1st Trimester	1,017	815.6	1,000	820.3	11	733.3	5	.

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	6	4.8	6	4.9	-	-	-	-
Neonatal Deaths	5	.	5	.	-	-	-	-
Postneonatal Deaths	1	.	1	.	-	-	-	-
Perinatal Deaths	12	9.6	12	9.8	-	-	-	-
Fetal Deaths	7	5.6	7	5.7	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	783	395	388	778	390	388	3	3	-	2	2	-	
Mortality Rate	8.6	8.8	8.4	8.7	8.9	8.5	.	.	-	.	.	-	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	6	4	1	5	9	5	2	14	25	50	135	527	-
White Male	4	3	-	3	3	4	2	9	12	29	75	246	-
White Female	2	1	1	2	6	1	-	5	12	21	60	277	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	3	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	1	-	-	1	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

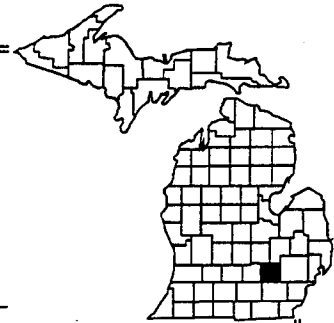
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	783	856.0	778	872.6	3	.	19	68.9
Diseases of the Heart	272	297.3	270	302.8	2	.	1	.
Malignant Neoplasms	197	215.4	196	219.8	-	-	3	.
Cerebrovascular Diseases	62	67.8	62	69.5	-	-	-	-
Accidents and Adverse Effects	34	37.2	33	37.0	-	-	11	39.9
Chronic Obstructive Pulmonary Diseases and Allied Conditions	42	45.9	42	47.1	-	-	-	-
Pneumonia and Influenza	15	16.4	15	16.8	-	-	-	-
Diabetes Mellitus	21	23.0	21	23.6	-	-	-	-
Chronic Liver Disease and Cirrhosis	7	7.7	7	7.9	-	-	1	.
Homicide	1	.	1	.	-	-	-	-
Suicide	7	7.7	7	7.9	-	-	-	-
Atherosclerosis	12	13.1	12	13.5	-	-	-	-
AIDS	6	6.6	6	6.7	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Livingston County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	115,645	Total Live Births:	1,596	Total Deaths:	726
Rank Among Counties:	17	Teenage Mothers:	81	Infant Deaths:	7
Per Square Mile:	201.4	Low Weight Births:	84	Neonatal Deaths:	4
		First Births:	630	Postneonatal Deaths:	3
				Perinatal Deaths:	10
				Fetal Deaths:	7
MARRIAGE		DIVORCE			
Marriages:	934	Divorces:	602		
Marriage Rate:	16.2	Divorce Rate:	10.4		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	1,596	13.8	1,579	13.9	1	.	9	7.5
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	81	50.8	79	50.0	-	-	1	.
Low Weight	84	52.6	84	53.2	-	-	-	-
Under 1,500 Grams	15	9.4	15	9.5	-	-	-	-
< 38 Weeks Gestation	216	135.3	215	136.2	-	-	-	-
Prenatal Care Began in 1st Trimester	1,344	842.1	1,337	846.7	-	-	5	.

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	7	4.4	6	3.8	1	.	-	-
Neonatal Deaths	4	.	4	.	-	-	-	-
Postneonatal Deaths	3	.	2	.	1	.	-	-
Perinatal Deaths	10	6.2	10	6.3	-	-	-	-
Fetal Deaths	7	4.4	7	4.4	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	726	372	354	716	367	349	4	2	2	6	3	3	
Mortality Rate	6.3	6.4	6.2	6.3	6.4	6.2	.	.	.	5.0	.	.	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	7	2	2	-	6	9	8	20	29	62	128	453	-
White Male	5	1	1	-	3	8	5	12	23	44	71	194	-
White Female	1	1	1	-	3	1	3	8	5	17	53	256	-
Black Male	1	-	-	-	-	-	-	-	-	-	1	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	1	1	-
Other Male	-	-	-	-	-	-	-	-	1	1	1	2	-
Other Female	-	-	-	-	-	-	-	-	-	-	1	2	-

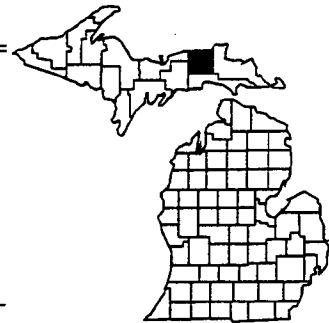
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	726	627.8	716	629.3	4	.	10	28.7
Diseases of the Heart	248	214.4	243	213.6	2	.	1	.
Malignant Neoplasms	206	178.1	202	177.5	2	.	2	.
Cerebrovascular Diseases	40	34.6	40	35.2	-	-	-	-
Accidents and Adverse Effects	30	25.9	30	26.4	-	-	5	.
Chronic Obstructive Pulmonary Diseases and Allied Conditions	33	28.5	33	29.0	-	-	-	-
Pneumonia and Influenza	15	13.0	15	13.2	-	-	-	-
Diabetes Mellitus	13	11.2	13	11.4	-	-	-	-
Chronic Liver Disease and Cirrhosis	13	11.2	13	11.4	-	-	-	-
Homicide	2	.	2	.	-	-	1	.
Suicide	19	16.4	19	16.7	-	-	1	.
Atherosclerosis	7	6.1	7	6.2	-	-	-	-
AIDS	3	.	3	.	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Luce County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	5,763	Total Live Births:	74	Total Deaths:	73
Rank Among Counties:	82	Teenage Mothers:	9	Infant Deaths:	2
Per Square Mile:	6.4	Low Weight Births:	1	Neonatal Deaths:	2
		First Births:	21	Postneonatal Deaths:	-
				Perinatal Deaths:	2
				Fetal Deaths:	-
MARRIAGE		DIVORCE			
Marriages:	39	Divorces:	36		
Marriage Rate:	13.5	Divorce Rate:	12.5		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	74	12.8	68	12.5	-	-	6	17.8
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	9	121.6	8	117.6	-	-	1	-
Low Weight	1	-	1	-	-	-	-	-
Under 1,500 Grams	1	-	1	-	-	-	-	-
< 38 Weeks Gestation	9	121.6	9	132.4	-	-	-	-
Prenatal Care Began in 1st Trimester	54	729.7	49	720.6	-	-	5	-

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	2	-	2	-	-	-	-	-
Neonatal Deaths	2	-	2	-	-	-	-	-
Postneonatal Deaths	-	-	-	-	-	-	-	-
Perinatal Deaths	2	-	2	-	-	-	-	-
Fetal Deaths	-	-	-	-	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	73	44	29	69	42	27	-	-	-	4	2	2	
Mortality Rate	12.7	15.6	9.9	12.7	15.9	9.7	-	-	-	-	-	-	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	2	-	-	1	-	3	1	2	3	1	15	45	-
White Male	1	-	-	1	-	2	1	2	2	-	9	24	-
White Female	1	-	-	-	-	1	-	-	1	-	5	19	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	1	-	1	-
Other Female	-	-	-	-	-	-	-	-	-	-	1	1	-

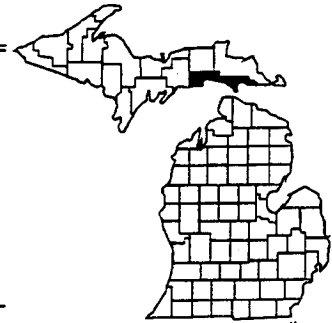
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	73	1,266.7	69	1,272.1	-	-	1	-
Diseases of the Heart	16	277.6	15	276.5	-	-	-	-
Malignant Neoplasms	17	295.0	16	295.0	-	-	-	-
Cerebrovascular Diseases	10	173.5	10	184.4	-	-	-	-
Accidents and Adverse Effects	3	-	3	-	-	-	1	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	3	-	3	-	-	-	-	-
Pneumonia and Influenza	6	104.1	6	110.6	-	-	-	-
Diabetes Mellitus	1	-	1	-	-	-	-	-
Chronic Liver Disease and Cirrhosis	1	-	-	-	-	-	-	-
Homicide	1	-	1	-	-	-	-	-
Suicide	-	-	-	-	-	-	-	-
Atherosclerosis	-	-	-	-	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Mackinac County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	10,674	Total Live Births:	135	Total Deaths:	120
Rank Among Counties:	73	Teenage Mothers:	18	Infant Deaths:	-
Per Square Mile:	10.4	Low Weight Births:	4	Neonatal Deaths:	-
		First Births:	66	Postneonatal Deaths:	-
				Perinatal Deaths:	-
				Fetal Deaths:	-
MARRIAGE		DIVORCE			
Marriages:	204	Divorces:	39		
Marriage Rate:	38.2	Divorce Rate:	7.3		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	135	12.6	117	13.0	-	-	18	10.6
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	18	133.3	14	119.7	-	-	4	-
Low Weight	4	-	4	-	-	-	-	-
Under 1,500 Grams	-	-	-	-	-	-	-	-
< 38 Weeks Gestation	19	140.7	17	145.3	-	-	2	-
Prenatal Care Began in 1st Trimester	111	822.2	98	837.6	-	-	13	722.2

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	-	-	-	-	-	-	-	-
Neonatal Deaths	-	-	-	-	-	-	-	-
Postneonatal Deaths	-	-	-	-	-	-	-	-
Perinatal Deaths	-	-	-	-	-	-	-	-
Fetal Deaths	-	-	-	-	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	120	51	69	106	43	63	-	-	-	14	8	6	
Mortality Rate	11.2	9.7	12.8	11.8	9.7	13.8	-	-	-	8.2	9.3	7.1	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	-	-	-	-	-	1	-	5	4	10	20	80	-
White Male	-	-	-	-	-	-	-	3	3	2	8	27	-
White Female	-	-	-	-	-	1	-	1	-	5	8	48	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	1	-	3	2	2	-
Other Female	-	-	-	-	-	-	-	-	1	-	2	3	-

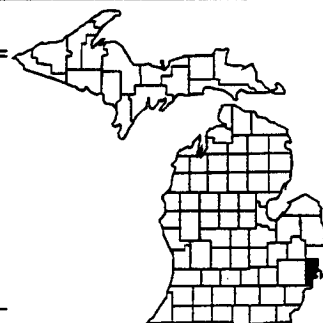
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	120	1,124.2	106	1,182.1	-	-	-	-
Diseases of the Heart	38	356.0	33	368.0	-	-	-	-
Malignant Neoplasms	27	253.0	26	290.0	-	-	-	-
Cerebrovascular Diseases	6	56.2	6	66.9	-	-	-	-
Accidents and Adverse Effects	4	-	3	-	-	-	-	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	6	56.2	4	-	-	-	-	-
Pneumonia and Influenza	2	-	2	-	-	-	-	-
Diabetes Mellitus	2	-	2	-	-	-	-	-
Chronic Liver Disease and Cirrhosis	2	-	-	-	-	-	-	-
Homicide	1	-	1	-	-	-	-	-
Suicide	4	-	4	-	-	-	-	-
Atherosclerosis	-	-	-	-	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Macomb County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	717,400	Total Live Births:	9,828	Total Deaths:	5,873
Rank Among Counties:	3	Teenage Mothers:	618	Infant Deaths:	53
Per Square Mile:	1,487.1	Low Weight Births:	583	Neonatal Deaths:	39
		First Births:	4,124	Postneonatal Deaths:	14
				Perinatal Deaths:	80
				Fetal Deaths:	43
MARRIAGE		DIVORCE			
Marriages:	6,217	Divorces:	2,913		
Marriage Rate:	17.3	Divorce Rate:	8.1		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	9,828	13.7	9,398	13.5	224	21.4	142	12.0
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	618	62.9	555	59.1	49	218.8	10	70.4
Low Weight	583	59.3	549	58.4	24	107.1	7	49.3
Under 1,500 Grams	112	11.4	103	11.0	8	35.7	-	-
< 38 Weeks Gestation	1,509	153.5	1,421	151.2	56	250.0	23	162.0
Prenatal Care Began in 1st Trimester	8,588	873.8	8,287	881.8	145	647.3	106	746.5

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	53	5.4	50	5.3	3	*	-	-
Neonatal Deaths	39	4.0	36	3.8	3	*	-	-
Postneonatal Deaths	14	1.4	14	1.5	-	-	-	-
Perinatal Deaths	80	8.1	72	7.6	3	*	3	*
Fetal Deaths	43	4.4	38	4.0	-	-	3	*

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	5,873	2,946	2,927	5,752	2,876	2,876	74	42	32	42	24	18	
Mortality Rate	8.2	8.5	7.9	8.3	8.5	8.0	7.1	8.1	6.1	3.6	4.3	2.9	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	53	12	13	9	22	36	51	160	220	457	1,079	3,761	-
White Male	30	6	9	6	17	25	40	102	132	259	625	1,625	-
White Female	20	5	2	2	4	11	8	52	80	177	426	2,089	-
Black Male	1	-	1	-	1	-	3	1	2	5	10	18	-
Black Female	2	-	1	-	-	-	-	2	3	8	6	10	-
Other Male	-	1	-	1	-	-	-	2	3	4	7	6	-
Other Female	-	-	-	-	-	-	-	1	-	3	4	10	-

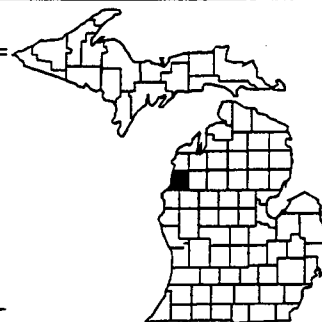
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	5,873	818.7	5,752	827.4	74	708.1	56	30.8
Diseases of the Heart	2,028	282.7	1,994	286.8	22	210.5	-	-
Malignant Neoplasms	1,572	219.1	1,536	221.0	21	201.0	13	7.1
Cerebrovascular Diseases	421	58.7	412	59.3	6	57.4	-	-
Accidents and Adverse Effects	163	22.7	157	22.6	4	*	17	9.3
Chronic Obstructive Pulmonary Diseases and Allied Conditions	208	29.0	206	29.6	1	*	-	-
Pneumonia and Influenza	203	28.3	201	28.9	1	*	1	*
Diabetes Mellitus	157	21.9	151	21.7	2	*	-	-
Chronic Liver Disease and Cirrhosis	76	10.6	75	10.8	1	*	-	-
Homicide	32	4.5	28	4.0	3	*	5	*
Suicide	78	10.9	77	11.1	-	-	6	3.3
Atherosclerosis	103	14.4	103	14.8	-	-	-	-
AIDS	29	4.0	27	3.9	2	*	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Manistee County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	21,265	Total Live Births:	243	Total Deaths:	280
Rank Among Counties:	58	Teenage Mothers:	29	Infant Deaths:	5
Per Square Mile:	39.2	Low Weight Births:	18	Neonatal Deaths:	4
		First Births:	98	Postneonatal Deaths:	1
				Perinatal Deaths:	7
				Fetal Deaths:	3
MARRIAGE		DIVORCE			
Marriages:	176	Divorces:	96		
Marriage Rate:	16.6	Divorce Rate:	9.0		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	243	11.4	236	11.3	-	-	7	28.6
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	29	119.3	27	114.4	-	-	2	.
Low Weight	18	74.1	17	72.0	-	-	1	.
Under 1,500 Grams	6	24.7	6	25.4	-	-	-	.
< 38 Weeks Gestation	36	148.1	32	135.6	-	-	4	.
Prenatal Care Began in 1st Trimester	175	720.2	170	720.3	-	-	5	.

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	5	.	5	.	-	-	-	-
Neonatal Deaths	4	.	4	.	-	-	-	-
Postneonatal Deaths	1	.	1	.	-	-	-	-
Perinatal Deaths	7	28.5	6	25.2	-	-	1	.
Fetal Deaths	3	.	2	.	-	-	1	.

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	280	150	130	276	147	129	-	-	-	4	3	1	
Mortality Rate	13.2	14.6	11.9	13.2	14.5	11.9	-	-	-	.	.	.	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	5	-	1	-	-	3	1	3	11	18	52	186	-
White Male	2	-	1	-	-	3	-	2	6	11	32	90	-
White Female	3	-	-	-	-	-	1	1	3	6	19	96	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	1	1	-	1	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

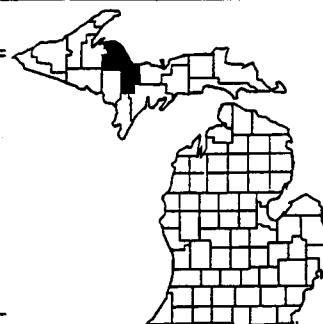
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	280	1,316.7	276	1,316.5	-	-	1	.
Diseases of the Heart	105	493.8	105	500.8	-	-	-	-
Malignant Neoplasms	67	315.1	66	314.8	-	-	1	.
Cerebrovascular Diseases	17	79.9	17	81.1	-	-	-	-
Accidents and Adverse Effects	6	28.2	6	28.6	-	-	-	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	10	47.0	10	47.7	-	-	-	-
Pneumonia and Influenza	8	37.6	8	38.2	-	-	-	-
Diabetes Mellitus	9	42.3	8	38.2	-	-	-	-
Chronic Liver Disease and Cirrhosis	3	.	3	.	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	4	.	3	.	-	-	-	-
Atherosclerosis	9	42.3	9	42.9	-	-	-	-
AIDS	1	.	1	.	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Marquette County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	70,887	Total Live Births:	921	Total Deaths:	529
Rank Among Counties:	24	Teenage Mothers:	89	Infant Deaths:	12
Per Square Mile:	38.9	Low Weight Births:	47	Neonatal Deaths:	11
		First Births:	388	Postneonatal Deaths:	1
				Perinatal Deaths:	12
				Fetal Deaths:	3
MARRIAGE		DIVORCE			
Marriages:	655	Divorces:	324		
Marriage Rate:	18.5	Divorce Rate:	9.1		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	921	13.0	860	12.6	15	12.7	44	29.5
Teenage Mothers	89	96.6	81	94.2	3	.	5	.
Low Weight	47	51.0	41	47.7	1	.	5	.
Under 1,500 Grams	12	13.0	10	11.6	1	.	1	.
< 38 Weeks Gestation	127	137.9	115	133.7	4	.	8	181.8
Prenatal Care Began in 1st Trimester	807	876.2	759	882.6	9	600.0	38	863.6

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	12	13.0	12	14.0	-	-	-	-
Neonatal Deaths	11	11.9	11	12.8	-	-	-	-
Postneonatal Deaths	1	.	1	.	-	-	-	-
Perinatal Deaths	12	13.0	11	12.8	-	-	1	.
Fetal Deaths	3	.	2	.	-	-	1	.

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Total	Black		Total	Other		
	Total	Male	Female	Total	Male	Female		Male	Female		Male	Female	
Deaths	529	270	259	521	265	256	1	1	-	7	4	3	
Mortality Rate	7.5	7.5	7.4	7.6	7.7	7.6	.	.	-	4.7	.	.	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	12	1	-	2	1	5	3	3	17	36	85	364	-
White Male	7	1	-	-	1	5	2	2	9	22	48	168	-
White Female	5	-	-	2	-	-	1	1	5	13	36	193	-
Black Male	-	-	-	-	-	-	-	-	1	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	2	-	1	1	-
Other Female	-	-	-	-	-	-	-	-	-	1	-	2	-

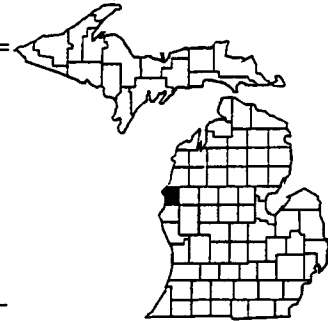
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	529	746.3	521	763.8	1	.	4	-
Diseases of the Heart	174	245.5	170	249.2	-	-	-	-
Malignant Neoplasms	120	169.3	120	175.9	-	-	-	-
Cerebrovascular Diseases	38	53.6	37	54.2	-	-	-	-
Accidents and Adverse Effects	17	24.0	17	24.9	-	-	1	.
Chronic Obstructive Pulmonary Diseases and Allied Conditions	19	26.8	19	27.9	-	-	-	-
Pneumonia and Influenza	20	28.2	20	29.3	-	-	1	.
Diabetes Mellitus	15	21.2	15	22.0	-	-	-	-
Chronic Liver Disease and Cirrhosis	7	9.9	5	.	1	.	-	-
Homicide	1	.	1	.	-	-	-	-
Suicide	9	12.7	9	13.2	-	-	1	.
Atherosclerosis	6	8.5	6	8.8	-	-	-	-
AIDS	2	.	2	.	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Mason County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	25,537	Total Live Births:	322	Total Deaths:	250
Rank Among Counties:	50	Teenage Mothers:	42	Infant Deaths:	1
Per Square Mile:	51.6	Low Weight Births:	19	Neonatal Deaths:	1
		First Births:	118	Postneonatal Deaths:	-
				Perinatal Deaths:	2
				Fetal Deaths:	1
MARRIAGE		DIVORCE			
Marriages:	227	Divorces:	146		
Marriage Rate:	17.8	Divorce Rate:	11.4		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	322	12.6	301	12.0	1	.	19	68.8
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	42	130.4	39	129.6	-	-	2	.
Low Weight	19	59.0	19	63.1	-	-	-	-
Under 1,500 Grams	1	.	1	.	-	-	-	-
< 38 Weeks Gestation	44	136.6	42	139.5	-	-	2	.
Prenatal Care Began in 1st Trimester	252	782.6	237	787.4	1	.	14	736.8

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	1	.	1	.	-	-	-	-
Neonatal Deaths	1	.	1	.	-	-	-	-
Postneonatal Deaths	-	-	-	-	-	-	-	-
Perinatal Deaths	2	.	2	.	-	-	-	-
Fetal Deaths	1	.	1	.	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Total	Black		Total	Other		
	Total	Male	Female	Total	Male	Female		Male	Female		Male	Female	
Deaths	250	124	126	249	123	126	-	-	-	1	1	-	
Mortality Rate	9.8	10.0	9.6	9.9	10.1	9.7	-	-	-	.	.	-	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	1	-	1	1	2	3	3	4	14	11	39	171	-
White Male	-	-	1	1	1	3	-	3	8	5	27	74	-
White Female	1	-	-	-	1	-	3	1	6	6	12	96	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	1	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

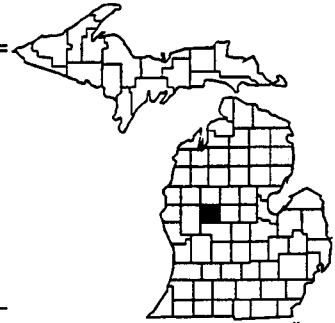
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	250	979.0	249	991.8	-	-	4	.
Diseases of the Heart	83	325.0	82	326.6	-	-	-	-
Malignant Neoplasms	61	238.9	61	243.0	-	-	-	-
Cerebrovascular Diseases	22	86.1	22	87.6	-	-	-	-
Accidents and Adverse Effects	15	58.7	15	59.7	-	-	4	.
Chronic Obstructive Pulmonary Diseases and Allied Conditions	5	.	5	.	-	-	-	-
Pneumonia and Influenza	8	31.3	8	31.9	-	-	-	-
Diabetes Mellitus	7	27.4	7	27.9	-	-	-	-
Chronic Liver Disease and Cirrhosis	1	.	1	.	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	5	.	5	.	-	-	-	-
Atherosclerosis	7	27.4	7	27.9	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Mecosta County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	37,308	Total Live Births:	412	Total Deaths:	268
Rank Among Counties:	42	Teenage Mothers:	75	Infant Deaths:	4
Per Square Mile:	66.6	Low Weight Births:	22	Neonatal Deaths:	2
		First Births:	168	Postneonatal Deaths:	2
				Perinatal Deaths:	6
				Fetal Deaths:	4
MARRIAGE		DIVORCE			
Marriages:	295	Divorces:	147		
Marriage Rate:	15.8	Divorce Rate:	7.9		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	412	11.0	385	10.7	21	21.3	5	*
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	75	182.0	63	163.6	8	381.0	3	*
Low Weight	22	53.4	18	46.8	3	*	1	*
Under 1,500 Grams	5	*	4	*	1	*	-	-
< 38 Weeks Gestation	48	116.5	42	109.1	4	*	2	*
Prenatal Care Began in 1st Trimester	286	694.2	272	706.5	11	523.8	3	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	4	*	4	*	-	-	-	-
Neonatal Deaths	2	*	2	*	-	-	-	-
Postneonatal Deaths	2	*	2	*	-	-	-	-
Perinatal Deaths	6	14.4	6	15.4	-	-	-	-
Fetal Deaths	4	*	4	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	268	144	124	264	141	123	2	2	-	2	1	1	
Mortality Rate	7.2	7.5	6.9	7.4	7.6	7.1	*	*	-	*	*	*	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	4	1	2	2	1	1	1	4	8	18	57	169	-
White Male	3	1	1	-	1	1	1	2	7	16	26	82	-
White Female	1	-	1	2	-	-	-	2	1	2	28	86	-
Black Male	-	-	-	-	-	-	-	-	-	-	2	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	1	-
Other Female	-	-	-	-	-	-	-	-	-	-	1	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	268	718.3	264	735.9	2	*	6	51.9
Diseases of the Heart	86	230.5	85	236.9	-	-	-	-
Malignant Neoplasms	76	203.7	76	211.9	-	-	-	-
Cerebrovascular Diseases	14	37.5	14	39.0	-	-	-	-
Accidents and Adverse Effects	15	40.2	14	39.0	-	-	6	51.9
Chronic Obstructive Pulmonary Diseases and Allied Conditions	13	34.8	13	36.2	-	-	-	-
Pneumonia and Influenza	14	37.5	14	39.0	-	-	-	-
Diabetes Mellitus	7	18.8	7	19.5	-	-	-	-
Chronic Liver Disease and Cirrhosis	4	*	3	*	1	*	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	3	*	3	*	-	-	-	-
Atherosclerosis	1	*	1	*	-	-	-	-
AIDS	2	*	2	*	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Menominee County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	24,920	Total Live Births:	268	Total Deaths:	255
Rank Among Counties:	53	Teenage Mothers:	30	Infant Deaths:	2
Per Square Mile:	23.8	Low Weight Births:	12	Neonatal Deaths:	1
		First Births:	96	Postneonatal Deaths:	1
				Perinatal Deaths:	4
				Fetal Deaths:	3
MARRIAGE		DIVORCE			
Marriages:	223	Divorces:	90		
Marriage Rate:	17.9	Divorce Rate:	7.2		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	268	10.8	255	10.4	3	*	9	20.4
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	30	111.9	28	109.8	-	-	2	*
Low Weight	12	44.8	11	43.1	1	-	-	-
Under 1,500 Grams	1	*	1	*	-	-	-	-
< 38 Weeks Gestation	30	111.9	29	113.7	-	-	1	*
Prenatal Care Began in 1st Trimester	200	746.3	195	764.7	1	*	4	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	2	*	2	*	-	-	-	-
Neonatal Deaths	1	*	1	*	-	-	-	-
Postneonatal Deaths	1	*	1	*	-	-	-	-
Perinatal Deaths	4	*	4	*	-	-	-	-
Fetal Deaths	3	*	3	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	255	148	107	249	144	105	-	-	-	6	4	2	
Mortality Rate	10.2	12.0	8.5	10.2	11.9	8.5	-	-	-	13.6	*	*	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	2	-	2	-	4	2	2	2	12	11	40	178	-
White Male	2	-	1	-	4	2	2	1	8	9	23	92	-
White Female	-	-	1	-	-	-	-	1	1	2	14	86	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	1	-	3	-	-
Other Female	-	-	-	-	-	-	-	-	2	-	-	-	-

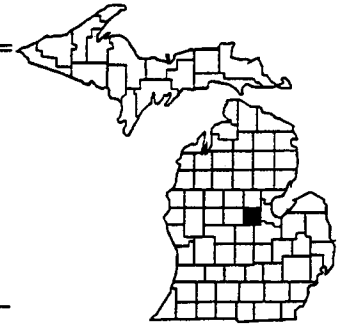
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	255	1,023.3	249	1,017.5	-	-	6	87.6
Diseases of the Heart	89	357.1	89	363.7	-	-	1	*
Malignant Neoplasms	60	240.8	58	237.0	-	-	-	-
Cerebrovascular Diseases	18	72.2	18	73.6	-	-	-	-
Accidents and Adverse Effects	9	36.1	9	36.8	-	-	2	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	10	40.1	10	40.9	-	-	-	-
Pneumonia and Influenza	7	28.1	6	24.5	-	-	-	-
Diabetes Mellitus	4	*	4	*	-	-	-	-
Chronic Liver Disease and Cirrhosis	9	36.1	6	24.5	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	3	*	3	*	-	-	2	*
Atherosclerosis	8	32.1	8	32.7	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Midland County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	75,651	Total Live Births:	1,137	Total Deaths:	469
Rank Among Counties:	22	Teenage Mothers:	96	Infant Deaths:	7
Per Square Mile:	144.1	Low Weight Births:	62	Neonatal Deaths:	6
		First Births:	471	Postneonatal Deaths:	1
				Perinatal Deaths:	13
				Fetal Deaths:	8
MARRIAGE		DIVORCE			
Marriages:	696	Divorces:	375		
Marriage Rate:	18.4	Divorce Rate:	9.9		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	1,137	15.0	1,117	15.1	10	13.7	10	8.7
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	96	84.4	95	85.0	1	.	-	.
Low Weight	62	54.5	60	53.7	1	.	1	.
Under 1,500 Grams	6	5.3	5	.	-	.	1	.
< 38 Weeks Gestation	156	137.2	155	138.8	1	.	-	.
Prenatal Care Began in 1st Trimester	1,032	907.7	1,016	909.6	6	600.0	10	1,000.0

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	7	6.2	6	5.4	-	-	1	.
Neonatal Deaths	6	5.3	5	.	-	-	1	.
Postneonatal Deaths	1	.	1	.	-	-	-	.
Perinatal Deaths	13	11.4	11	9.8	1	.	1	.
Fetal Deaths	8	7.0	7	6.2	1	.	-	.

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	469	246	223	463	240	223	3	3	-	3	3	-	
Mortality Rate	6.2	6.6	5.8	6.3	6.6	6.0	.	.	-	.	.	-	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	7	2	4	1	2	2	7	12	30	41	69	292	-
White Male	2	1	3	-	1	1	6	11	19	27	40	129	-
White Female	4	1	1	1	1	1	1	1	10	14	28	160	-
Black Male	-	-	-	-	-	-	-	-	1	-	-	2	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	1	-	-	-	-	-	-	-	-	-	1	1	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

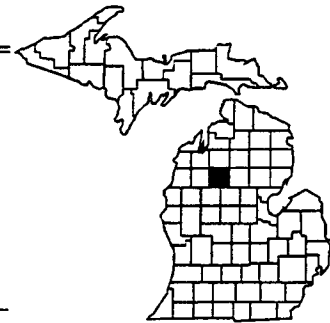
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	469	620.0	463	627.6	3	.	9	41.0
Diseases of the Heart	146	193.0	144	195.2	2	.	-	-
Malignant Neoplasms	106	140.1	104	141.0	-	-	-	-
Cerebrovascular Diseases	29	38.3	29	39.3	-	-	-	-
Accidents and Adverse Effects	17	22.5	17	23.0	-	-	1	.
Chronic Obstructive Pulmonary Diseases and Allied Conditions	22	29.1	22	29.8	-	-	-	-
Pneumonia and Influenza	18	23.8	18	24.4	-	-	-	-
Diabetes Mellitus	9	11.9	9	12.2	-	-	-	-
Chronic Liver Disease and Cirrhosis	5	.	5	.	-	-	-	-
Homicide	2	.	2	.	-	-	-	-
Suicide	13	17.2	13	17.6	-	-	-	-
Atherosclerosis	8	10.6	8	10.8	-	-	-	-
AIDS	3	.	3	.	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Missaukee County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	12,147	Total Live Births:	190	Total Deaths:	121
Rank Among Counties:	72	Teenage Mothers:	24	Infant Deaths:	2
Per Square Mile:	21.5	Low Weight Births:	12	Neonatal Deaths:	1
		First Births:	63	Postneonatal Deaths:	1
				Perinatal Deaths:	1
				Fetal Deaths:	-
MARRIAGE		DIVORCE			
Marriages:	88	Divorces:	41		
Marriage Rate:	14.5	Divorce Rate:	6.8		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	190	15.6	187	15.5	-	-	3	.
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	24	126.3	23	123.0	-	-	1	.
Low Weight	12	63.2	11	58.8	-	-	1	.
Under 1,500 Grams	3	.	3	.	-	-	-	.
< 38 Weeks Gestation	15	78.9	14	74.9	-	-	1	.
Prenatal Care Began in 1st Trimester	150	789.5	147	786.1	-	-	3	.

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	2	.	2	.	-	-	-	-
Neonatal Deaths	1	.	1	.	-	-	-	-
Postneonatal Deaths	1	.	1	.	-	-	-	-
Perinatal Deaths	1	.	1	.	-	-	-	-
Fetal Deaths	-	-	-	-	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	121	67	54	120	67	53	-	-	-	1	-	1	
Mortality Rate	10.0	11.2	8.8	10.0	11.3	8.7	-	-	-	.	-	.	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	2	-	-	-	4	2	-	3	6	10	16	78	-
White Male	1	-	-	-	2	2	-	-	3	3	13	43	-
White Female	1	-	-	-	1	-	-	3	3	7	3	35	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	1	-	-	-	-	-	-	-	-

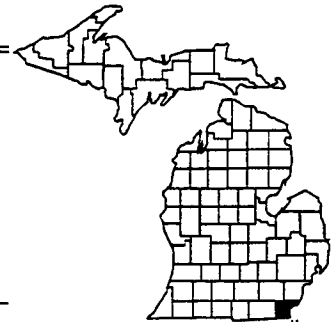
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	121	996.1	120	996.8	-	-	4	.
Diseases of the Heart	44	362.2	44	365.5	-	-	-	-
Malignant Neoplasms	24	197.6	24	199.4	-	-	-	-
Cerebrovascular Diseases	9	74.1	9	74.8	-	-	-	-
Accidents and Adverse Effects	10	82.3	10	83.1	-	-	3	.
Chronic Obstructive Pulmonary Diseases and Allied Conditions	11	90.6	11	91.4	-	-	-	-
Pneumonia and Influenza	4	.	4	.	-	-	-	-
Diabetes Mellitus	4	.	4	.	-	-	-	-
Chronic Liver Disease and Cirrhosis	-	-	-	-	-	-	-	-
Homicide	1	.	1	.	-	-	-	-
Suicide	2	.	2	.	-	-	-	-
Atherosclerosis	-	-	-	-	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Monroe County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	133,600	Total Live Births:	1,845	Total Deaths:	960
Rank Among Counties:	16	Teenage Mothers:	221	Infant Deaths:	10
Per Square Mile:	240.0	Low Weight Births:	114	Neonatal Deaths:	7
		First Births:	687	Postneonatal Deaths:	3
				Perinatal Deaths:	9
				Fetal Deaths:	4
MARRIAGE		DIVORCE			
Marriages:	884	Divorces:	616		
Marriage Rate:	13.2	Divorce Rate:	9.2		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	1,845	13.8	1,793	13.8	43	18.2	6	5.6
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	221	119.8	207	115.4	13	302.3	-	-
Low Weight	114	61.8	107	59.7	7	162.8	-	-
Under 1,500 Grams	18	9.8	17	9.5	1	*	-	-
< 38 Weeks Gestation	300	162.6	282	157.3	17	395.3	1	*
Prenatal Care Began in 1st Trimester	1,503	814.6	1469	819.3	27	627.9	5	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	10	5.4	9	5.0	1	*	-	-
Neonatal Deaths	7	3.8	7	3.9	-	-	-	-
Postneonatal Deaths	3	*	2	*	1	*	-	-
Perinatal Deaths	9	4.9	9	5.0	-	-	-	-
Fetal Deaths	4	*	4	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	960	496	464	930	482	448	26	12	14	4	2	2	
Mortality Rate	7.2	7.5	6.9	7.1	7.5	6.8	11.0	9.7	12.5	*	*	*	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	10	2	2	3	8	8	7	21	40	71	187	601	-
White Male	6	1	1	3	6	5	4	15	21	39	113	268	-
White Female	3	-	1	-	2	3	2	4	16	30	67	320	-
Black Male	-	-	-	-	-	-	-	1	2	-	5	4	-
Black Female	1	-	-	-	-	-	-	1	1	2	2	7	-
Other Male	-	-	-	-	-	-	1	-	-	-	-	1	-
Other Female	-	1	-	-	-	-	-	-	-	-	-	1	-

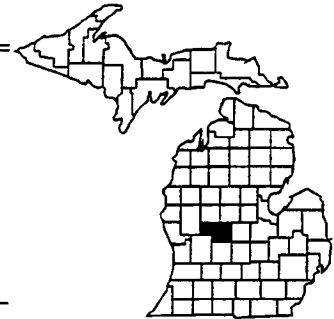
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	960	718.6	930	714.4	26	1,103.1	15	37.1
Diseases of the Heart	378	292.9	369	283.5	8	339.4	-	-
Malignant Neoplasms	251	187.9	241	185.1	9	381.8	2	*
Cerebrovascular Diseases	53	39.7	52	39.9	1	*	-	-
Accidents and Adverse Effects	36	26.9	34	26.1	1	*	10	24.8
Chronic Obstructive Pulmonary Diseases and Allied Conditions	40	29.9	40	30.7	-	-	-	-
Pneumonia and Influenza	23	17.2	23	17.7	-	-	-	-
Diabetes Mellitus	26	19.5	25	19.2	1	*	-	-
Chronic Liver Disease and Cirrhosis	8	6.0	8	6.1	-	-	-	-
Homicide	2	*	1	*	1	*	-	-
Suicide	15	11.2	15	11.5	-	-	2	*
Atherosclerosis	6	4.5	6	4.6	-	-	-	-
AIDS	2	*	2	*	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Montcalm County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	53,059	Total Live Births:	824	Total Deaths:	445
Rank Among Counties:	33	Teenage Mothers:	134	Infant Deaths:	5
Per Square Mile:	74.5	Low Weight Births:	42	Neonatal Deaths:	2
		First Births:	306	Postneonatal Deaths:	3
				Perinatal Deaths:	5
				Fetal Deaths:	3
MARRIAGE		DIVORCE			
Marriages:	502	Divorces:	303		
Marriage Rate:	18.9	Divorce Rate:	11.4		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	824	15.5	814	15.8	4	.	6	10.8
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	134	162.6	134	164.6	-	-	-	-
Low Weight	42	51.0	41	50.4	-	-	1	-
Under 1,500 Grams	9	10.9	9	11.1	-	-	-	-
< 38 Weeks Gestation	116	140.8	114	140.0	2	.	-	-
Prenatal Care Began in 1st Trimester	625	758.5	618	759.2	2	.	5	.

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	5	.	5	.	-	-	-	-
Neonatal Deaths	2	.	2	.	-	-	-	-
Postneonatal Deaths	3	.	3	.	-	-	-	-
Perinatal Deaths	5	.	4	.	-	-	-	-
Fetal Deaths	3	.	2	.	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	445	239	206	440	235	205	3	2	1	2	2	-	
Mortality Rate	8.4	8.8	7.9	8.5	9.1	8.0	.	.	.	.	.	-
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	5	3	1	1	2	7	6	8	19	35	80	278	-
White Male	1	2	-	1	1	6	3	5	12	22	47	135	-
White Female	4	1	1	-	1	-	3	2	7	13	31	142	-
Black Male	-	-	-	-	-	-	-	-	-	-	1	1	-
Black Female	-	-	-	-	-	-	-	1	-	-	-	-	-
Other Male	-	-	-	-	-	1	-	-	-	-	1	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

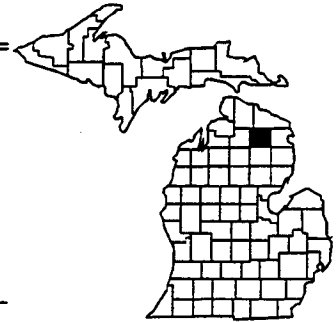
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	445	838.7	440	853.8	3	.	7	44.1
Diseases of the Heart	169	318.5	168	326.0	1	.	-	-
Malignant Neoplasms	88	165.9	87	168.8	-	-	-	-
Cerebrovascular Diseases	22	41.5	21	40.7	1	.	-	-
Accidents and Adverse Effects	22	41.5	22	42.7	-	-	7	44.1
Chronic Obstructive Pulmonary Diseases and Allied Conditions	21	39.6	21	40.7	-	-	-	-
Pneumonia and Influenza	12	22.6	12	23.3	-	-	-	-
Diabetes Mellitus	21	39.6	21	40.7	-	-	-	-
Chronic Liver Disease and Cirrhosis	6	11.3	6	11.6	-	-	-	-
Homicide	2	.	2	.	-	-	-	-
Suicide	6	11.3	5	.	-	-	-	-
Atherosclerosis	3	.	3	.	-	-	-	-
AIDS	2	.	2	.	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Montmorency County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	8,936	Total Live Births:	81	Total Deaths:	121
Rank Among Counties:	76	Teenage Mothers:	17	Infant Deaths:	-
Per Square Mile:	16.2	Low Weight Births:	3	Neonatal Deaths:	-
		First Births:	30	Postneonatal Deaths:	-
				Perinatal Deaths:	-
				Fetal Deaths:	-
MARRIAGE		DIVORCE			
Marriages:	63	Divorces:	30		
Marriage Rate:	14.1	Divorce Rate:	6.7		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	81	9.1	80	9.0	-	-	1	-
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	17	209.9	17	212.5	-	-	-	-
Low Weight	3	-	3	-	-	-	-	-
Under 1,500 Grams	-	-	-	-	-	-	-	-
< 38 Weeks Gestation	9	111.1	9	112.5	-	-	-	-
Prenatal Care Began in 1st Trimester	64	790.1	63	787.5	-	-	1	-

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	-	-	-	-	-	-	-	-
Neonatal Deaths	-	-	-	-	-	-	-	-
Postneonatal Deaths	-	-	-	-	-	-	-	-
Perinatal Deaths	-	-	-	-	-	-	-	-
Fetal Deaths	-	-	-	-	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	121	57	64	121	57	64	-	-	-	-	-	-	
Mortality Rate	13.5	13.0	14.0	13.6	13.1	14.1	-	-	-	-	-	-	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	-	-	-	-	-	-	1	2	1	10	29	78	-
White Male	-	-	-	-	-	-	1	2	-	5	13	36	-
White Female	-	-	-	-	-	-	-	-	1	5	16	42	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

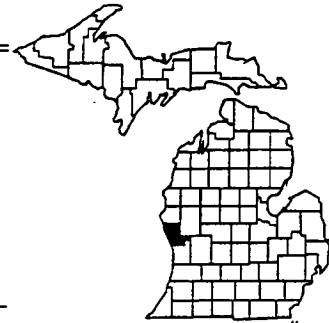
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	121	1,354.1	121	1,363.1	-	-	-	-
Diseases of the Heart	49	548.3	49	552.0	-	-	-	-
Malignant Neoplasms	30	335.7	30	338.0	-	-	-	-
Cerebrovascular Diseases	8	89.5	8	90.1	-	-	-	-
Accidents and Adverse Effects	2	-	2	-	-	-	-	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	6	67.1	6	67.6	-	-	-	-
Pneumonia and Influenza	6	67.1	6	67.6	-	-	-	-
Diabetes Mellitus	1	-	1	-	-	-	-	-
Chronic Liver Disease and Cirrhosis	3	-	3	-	-	-	-	-
Homicide	1	-	1	-	-	-	-	-
Suicide	-	-	-	-	-	-	-	-
Atherosclerosis	-	-	-	-	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Muskegon County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	158,983	Total Live Births:	2,541	Total Deaths:	1,433
Rank Among Counties:	12	Teenage Mothers:	434	Infant Deaths:	23
Per Square Mile:	313.6	Low Weight Births:	164	Neonatal Deaths:	14
		First Births:	949	Postneonatal Deaths:	9
				Perinatal Deaths:	24
				Fetal Deaths:	13
MARRIAGE		DIVORCE			
Marriages:	1,376	Divorces:	866		
Marriage Rate:	17.3	Divorce Rate:	10.9		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	2,541	16.0	1,949	14.4	563	25.9	27	13.8
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	434	170.8	233	119.5	194	344.6	6	222.2
Low Weight	164	64.5	99	50.8	64	113.7	1	*
Under 1,500 Grams	24	9.4	9	4.6	14	24.9	1	*
< 38 Weeks Gestation	460	181.0	296	151.9	159	282.4	5	*
Prenatal Care Began in 1st Trimester	1,708	672.2	1,459	748.6	235	417.4	13	481.5

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	23	9.1	12	6.2	11	19.5	-	-
Neonatal Deaths	14	5.5	6	3.1	8	14.2	-	-
Postneonatal Deaths	9	3.5	6	3.1	3	*	-	-
Perinatal Deaths	24	9.4	11	5.6	10	17.7	3	*
Fetal Deaths	13	5.1	8	4.1	2	*	3	*

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	1,433	727	706	1,246	629	617	178	91	87	9	7	2	
Mortality Rate	9.0	9.4	8.7	9.2	9.5	8.9	8.2	8.6	7.8	4.6	7.5	*	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	23	4	5	6	7	7	13	38	75	107	239	909	-
White Male	7	1	-	3	5	5	6	18	36	54	117	377	-
White Female	5	1	4	1	-	1	3	11	25	34	88	444	-
Black Male	5	1	-	1	2	1	2	3	5	8	15	48	-
Black Female	6	-	1	1	-	-	1	5	9	9	15	40	-
Other Male	-	-	-	-	-	-	1	1	-	1	4	-	-
Other Female	-	1	-	-	-	-	-	-	-	1	-	-	-

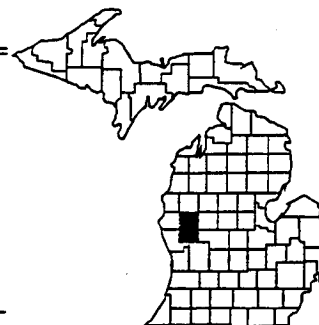
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	1,433	901.4	1,246	921.0	178	818.8	22	47.2
Diseases of the Heart	494	310.7	428	316.4	62	285.2	-	-
Malignant Neoplasms	341	214.5	309	228.4	31	142.6	-	-
Cerebrovascular Diseases	108	67.9	97	71.7	11	50.6	-	-
Accidents and Adverse Effects	55	34.6	47	34.7	6	27.6	11	23.6
Chronic Obstructive Pulmonary Diseases and Allied Conditions	49	30.8	47	34.7	2	*	-	-
Pneumonia and Influenza	49	30.8	42	31.0	7	32.2	1	*
Diabetes Mellitus	39	24.5	34	25.1	5	*	-	-
Chronic Liver Disease and Cirrhosis	14	8.8	13	9.6	1	*	-	-
Homicide	9	5.7	5	*	4	*	2	*
Suicide	22	13.8	21	15.5	1	*	2	*
Atherosclerosis	18	11.3	16	11.8	2	*	-	-
AIDS	5	*	4	*	1	*	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Newaygo County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	38,202	Total Live Births:	674	Total Deaths:	349
Rank Among Counties:	40	Teenage Mothers:	103	Infant Deaths:	7
Per Square Mile:	45.1	Low Weight Births:	44	Neonatal Deaths:	5
		First Births:	224	Postneonatal Deaths:	2
				Perinatal Deaths:	6
				Fetal Deaths:	4
MARRIAGE		DIVORCE			
Marriages:	375	Divorces:	235		
Marriage Rate:	19.6	Divorce Rate:	12.3		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	674	17.6	657	17.6	10	21.2	6	16.0
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	103	152.8	99	150.7	3	*	-	-
Low Weight	44	65.3	43	65.4	1	*	-	-
Under 1,500 Grams	10	14.8	10	15.2	-	-	-	-
< 38 Weeks Gestation	91	135.0	89	135.5	1	*	1	*
Prenatal Care Began in 1st Trimester	484	718.1	476	724.5	4	*	4	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	7	10.4	6	9.1	-	-	1	*
Neonatal Deaths	5	*	5	*	-	-	-	-
Postneonatal Deaths	2	*	1	*	-	-	1	*
Perinatal Deaths	6	8.8	6	9.1	-	-	-	-
Fetal Deaths	4	*	4	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	349	178	171	329	167	162	16	10	6	3	1	2	
Mortality Rate	9.1	9.5	8.8	8.8	9.1	8.5	34.0	41.8	25.9	*	*	*	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	7	-	-	1	3	3	2	3	12	31	54	233	-
White Male	3	-	-	-	1	2	2	-	5	21	31	102	-
White Female	3	-	-	1	2	1	-	1	6	9	20	119	-
Black Male	-	-	-	-	-	-	-	-	1	-	2	7	-
Black Female	-	-	-	-	-	-	-	1	-	-	-	5	-
Other Male	-	-	-	-	-	-	-	-	-	1	-	-	-
Other Female	1	-	-	-	-	-	-	1	-	-	-	-	-

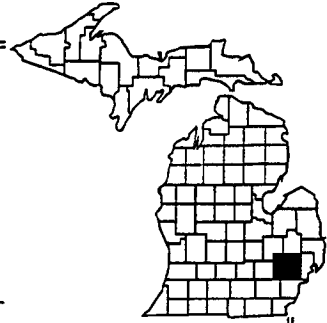
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	349	913.6	329	880.7	16	3,397.0	4	*
Diseases of the Heart	128	335.1	120	321.2	71	486.2	-	-
Malignant Neoplasms	86	225.1	83	222.2	3	*	-	-
Cerebrovascular Diseases	20	52.4	20	53.5	-	-	-	-
Accidents and Adverse Effects	18	47.1	17	45.5	-	-	4	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	17	44.5	16	42.8	1	*	-	-
Pneumonia and Influenza	21	55.0	19	50.9	2	*	-	-
Diabetes Mellitus	9	23.6	9	24.1	-	-	-	-
Chronic Liver Disease and Cirrhosis	2	*	2	*	-	-	-	-
Homicide	1	*	-	-	-	-	-	-
Suicide	5	*	5	*	-	-	-	-
Atherosclerosis	6	15.7	5	*	1	*	-	-
AIDS	1	*	-	-	1	*	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Oakland County



POPULATION

As of April 1, 1990: 1,083,592
 Rank Among Counties: 2
 Per Square Mile: 1,238.6

NATALITY

Total Live Births: 16,343
 Teenage Mothers: 1,148
 Low Weight Births: 1,010
 First Births: 6,947

MORTALITY

Total Deaths: 7,956
 Infant Deaths: 132
 Neonatal Deaths: 92
 Postneonatal Deaths: 40
 Perinatal Deaths: 168
 Fetal Deaths: 90

MARRIAGE

Marriages: 8,843
 Marriage Rate: 16.3

DIVORCE

Divorces: 4,986
 Divorce Rate: 9.2

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	16,343	15.1	14,340	14.7	1,557	20.0	283	9.7
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	1,148	70.2	793	55.3	337	216.4	15	53.0
Low Weight	1,010	61.8	763	53.2	210	134.9	24	84.8
Under 1,500 Grams	219	13.4	159	11.1	51	32.8	6	21.2
< 38 Weeks Gestation	2,692	164.7	2,211	154.2	403	258.8	43	151.9
Prenatal Care Began in 1st Trimester	14,330	876.8	12,859	896.7	1,090	700.1	245	865.7

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	132	8.1	93	6.5	33	21.2	6	21.2
Neonatal Deaths	92	5.6	68	4.7	18	11.6	6	21.2
Postneonatal Deaths	40	2.4	25	1.7	15	9.6	-	-
Perinatal Deaths	168	10.2	130	9.0	28	17.8	8	27.9
Fetal Deaths	90	5.5	71	4.9	13	8.3	4	*

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	7,956	3,946	4,010	7,330	3,595	3,735	527	287	240	89	56	33	
Mortality Rate	7.3	7.5	7.2	7.5	7.6	7.5	6.8	7.9	5.8	3.0	3.8	2.2	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	132	16	13	25	43	64	68	239	353	568	1,348	5,087	-
White Male	56	8	3	15	20	35	38	152	186	286	742	2,054	-
White Female	37	4	7	7	14	11	12	51	107	210	497	2,778	-
Black Male	22	3	1	2	4	10	9	21	21	37	50	107	-
Black Female	11	1	2	1	2	7	4	12	30	25	43	102	-
Other Male	2	-	-	-	2	-	5	2	6	8	9	22	-
Other Female	4	-	-	-	1	-	-	1	2	1	7	17	-

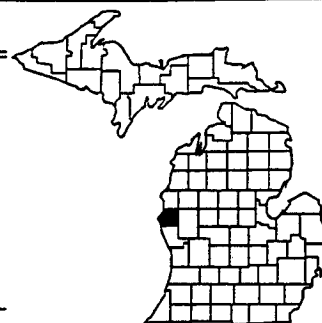
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	7,956	734.2	7,330	750.7	527	676.5	97	34.6
Diseases of the Heart	2,820	260.2	2,646	271.0	144	184.9	3	-
Malignant Neoplasms	2,035	187.8	1,886	193.2	126	161.8	14	5.0
Cerebrovascular Diseases	583	53.8	536	54.9	39	50.1	-	-
Accidents and Adverse Effects	204	18.8	176	18.0	25	32.1	32	11.4
Chronic Obstructive Pulmonary Diseases and Allied Conditions	290	26.8	278	28.5	10	12.8	-	-
Pneumonia and Influenza	226	20.9	216	22.1	9	11.6	1	*
Diabetes Mellitus	174	16.1	154	15.8	15	19.3	-	-
Chronic Liver Disease and Cirrhosis	91	8.4	86	8.8	4	*	-	-
Homicide	59	5.4	33	3.4	24	30.8	9	3.2
Suicide	141	13.0	130	13.3	7	9.0	11	3.9
Atherosclerosis	59	5.4	56	5.7	2	*	-	-
AIDS	53	4.9	41	4.2	12	15.4	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Oceana County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	22,454	Total Live Births:	344	Total Deaths:	224
Rank Among Counties:	54	Teenage Mothers:	41	Infant Deaths:	3
Per Square Mile:	41.5	Low Weight Births:	13	Neonatal Deaths:	-
		First Births:	110	Postneonatal Deaths:	3
				Perinatal Deaths:	4
				Fetal Deaths:	4
MARRIAGE		DIVORCE			
Marriages:	203	Divorces:	137		
Marriage Rate:	18.1	Divorce Rate:	12.2		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	344	15.3	339	15.4	1	*	4	*
Teenage Mothers	41	119.2	39	115.0	1	*	1	*
Low Weight	13	37.8	13	38.3	-	-	-	-
Under 1,500 Grams	3	*	3	*	-	-	-	-
< 38 Weeks Gestation	38	110.5	38	112.1	-	-	-	-
Prenatal Care Began in 1st Trimester	237	689.0	234	690.3	1	*	2	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	3	*	3	*	-	-	-	-
Neonatal Deaths	-	-	-	-	-	-	-	-
Postneonatal Deaths	3	*	3	*	-	-	-	-
Perinatal Deaths	4	*	4	*	-	-	-	-
Fetal Deaths	4	*	4	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	224	113	111	219	112	107	-	-	-	5	1	4	
Mortality Rate	10.0	10.2	9.7	9.9	10.3	9.5	-	-	-	*	*	*	
	Age in Years												
Total Deaths	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
White Male	3	1	1	-	1	1	-	3	12	16	38	148	-
White Female	-	1	-	-	-	-	-	-	5	8	15	78	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	1	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	2	2	-

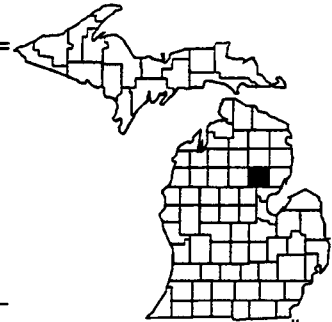
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	224	997.6	219	992.9	-	-	3	*
Diseases of the Heart	73	325.1	70	317.4	-	-	-	-
Malignant Neoplasms	57	253.9	57	258.4	-	-	-	-
Cerebrovascular Diseases	10	44.5	9	40.8	-	-	-	-
Accidents and Adverse Effects	8	35.6	8	36.3	-	-	1	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	10	44.5	10	45.3	-	-	-	-
Pneumonia and Influenza	11	49.0	11	49.9	-	-	1	*
Diabetes Mellitus	5	*	4	*	-	-	-	-
Chronic Liver Disease and Cirrhosis	1	*	1	*	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	4	*	4	*	-	-	-	-
Atherosclerosis	8	35.6	8	36.3	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Ogemaw County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	18,681	Total Live Births:	264	Total Deaths:	261
Rank Among Counties:	61	Teenage Mothers:	42	Infant Deaths:	3
Per Square Mile:	32.8	Low Weight Births:	18	Neonatal Deaths:	2
		First Births:	101	Postneonatal Deaths:	1
				Perinatal Deaths:	5
				Fetal Deaths:	4
MARRIAGE		DIVORCE			
Marriages:	173	Divorces:	81		
Marriage Rate:	18.5	Divorce Rate:	8.7		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	264	14.1	256	13.8	-	-	8	50.3
Teenage Mothers	42	159.1	38	148.4	-	-	4	.
Low Weight	18	68.2	16	62.5	-	-	2	.
Under 1,500 Grams	5	.	5	.	-	-	1	.
< 38 Weeks Gestation	41	155.3	40	156.3	-	-	1	.
Prenatal Care Began in 1st Trimester	201	761.4	195	761.7	-	-	6	750.0

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	3	.	3	.	-	-	-	-
Neonatal Deaths	2	.	2	.	-	-	-	-
Postneonatal Deaths	1	.	1	.	-	-	-	-
Perinatal Deaths	5	.	5	.	-	-	-	-
Fetal Deaths	4	.	4	.	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	261	133	128	259	132	127	-	-	-	2	1	1	
Mortality Rate	14.0	14.5	13.5	14.0	14.5	13.5	-	-	-	.	.	.	
	Age in Years												
Total Deaths	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
White Male	2	-	2	-	-	2	2	4	2	13	31	74	-
White Female	1	-	1	-	-	-	-	-	-	6	25	94	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	1	-
Other Female	-	-	-	-	-	-	-	-	1	-	-	-	-

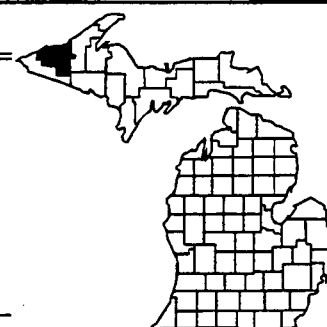
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	261	1,397.1	259	1,399.7	-	-	3	.
Diseases of the Heart	90	481.8	89	481.0	-	-	-	-
Malignant Neoplasms	78	417.5	77	416.1	-	-	1	.
Cerebrovascular Diseases	17	91.0	17	91.9	-	-	-	-
Accidents and Adverse Effects	12	64.2	12	64.9	-	-	2	.
Chronic Obstructive Pulmonary Diseases and Allied Conditions	12	64.2	12	64.9	-	-	-	-
Pneumonia and Influenza	8	42.8	8	43.2	-	-	-	-
Diabetes Mellitus	9	48.2	9	48.6	-	-	-	-
Chronic Liver Disease and Cirrhosis	3	.	3	.	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	2	.	2	.	-	-	-	-
Atherosclerosis	5	.	5	.	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Ontonagon County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	8,854	Total Live Births:	88	Total Deaths:	123
Rank Among Counties:	77	Teenage Mothers:	12	Infant Deaths:	2
Per Square Mile:	6.8	Low Weight Births:	5	Neonatal Deaths:	1
		First Births:	27	Postneonatal Deaths:	1
				Perinatal Deaths:	-
				Fetal Deaths:	-
MARRIAGE		DIVORCE			
Marriages:	59	Divorces:	27		
Marriage Rate:	13.3	Divorce Rate:	6.1		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	88	9.9	86	9.9	-	-	2	-
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	12	136.4	11	127.9	-	-	1	-
Low Weight	5	-	5	-	-	-	-	-
Under 1,500 Grams	-	-	-	-	-	-	-	-
< 38 Weeks Gestation	15	170.5	15	174.4	-	-	-	-
Prenatal Care Began in 1st Trimester	66	750.0	64	744.2	-	-	2	-

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	2	-	2	-	-	-	-	-
Neonatal Deaths	1	-	1	-	-	-	-	-
Postneonatal Deaths	1	-	1	-	-	-	-	-
Perinatal Deaths	-	-	-	-	-	-	-	-
Fetal Deaths	-	-	-	-	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	123	68	55	123	68	55	-	-	-	-	-	-	
Mortality Rate	13.9	15.1	12.6	14.1	15.4	12.8	-	-	-	-	-	-	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	2	1	-	-	1	-	-	-	4	7	14	94	-
White Male	2	1	-	-	1	-	-	4	4	9	47	-	-
White Female	-	-	-	-	-	-	-	-	3	5	47	-	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

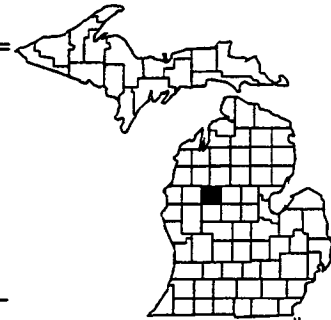
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	123	1,389.2	123	1,409.6	-	-	2	-
Diseases of the Heart	40	451.8	40	458.4	-	-	-	-
Malignant Neoplasms	21	237.2	21	240.7	-	-	-	-
Cerebrovascular Diseases	12	135.5	12	137.5	-	-	-	-
Accidents and Adverse Effects	6	67.8	6	68.8	-	-	-	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	2	-	2	-	-	-	-	-
Pneumonia and Influenza	5	-	5	-	-	-	-	-
Diabetes Mellitus	9	101.6	9	103.1	-	-	-	-
Chronic Liver Disease and Cirrhosis	-	-	-	-	-	-	-	-
Homicide	1	-	1	-	-	-	-	-
Suicide	2	-	2	-	-	-	1	-
Atherosclerosis	6	67.8	6	68.8	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Osceola County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	20,146	Total Live Births:	313	Total Deaths:	205
Rank Among Counties:	59	Teenage Mothers:	54	Infant Deaths:	4
Per Square Mile:	35.4	Low Weight Births:	19	Neonatal Deaths:	2
		First Births:	111	Postneonatal Deaths:	2
				Perinatal Deaths:	3
				Fetal Deaths:	1
MARRIAGE		DIVORCE			
Marriages:	173	Divorces:	67		
Marriage Rate:	17.2	Divorce Rate:	6.7		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	313	15.5	310	15.6	-	-	3	-
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	54	172.5	53	171.0	-	-	1	-
Low Weight	19	60.7	19	61.3	-	-	-	-
Under 1,500 Grams	4	-	4	-	-	-	-	-
< 38 Weeks Gestation	43	137.4	43	138.7	-	-	-	-
Prenatal Care Began in 1st Trimester	215	686.9	213	687.1	-	-	2	-

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	4	-	4	-	-	-	-	-
Neonatal Deaths	2	-	2	-	-	-	-	-
Postneonatal Deaths	2	-	2	-	-	-	-	-
Perinatal Deaths	3	-	3	-	-	-	-	-
Fetal Deaths	1	-	1	-	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	205	119	86	203	118	85	-	-	-	2	1	1	
Mortality Rate	10.2	11.9	8.5	10.2	12.0	8.5	-	-	-	-	-	-	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	4	1	-	2	-	1	-	5	3	21	44	124	-
White Male	-	-	-	2	-	1	-	4	2	17	29	63	-
White Female	4	1	-	-	-	-	-	-	1	4	15	60	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	1	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	1	-

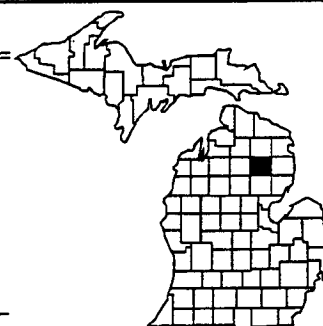
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	205	1,017.6	203	1,018.7	-	-	3	-
Diseases of the Heart	73	362.4	73	366.3	-	-	-	-
Malignant Neoplasms	46	228.3	46	230.8	-	-	-	-
Cerebrovascular Diseases	11	54.6	10	50.2	-	-	1	-
Accidents and Adverse Effects	12	59.6	12	60.2	-	-	1	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	12	59.6	12	60.2	-	-	-	-
Pneumonia and Influenza	5	-	5	-	-	-	-	-
Diabetes Mellitus	5	-	5	-	-	-	-	-
Chronic Liver Disease and Cirrhosis	1	-	1	-	-	-	-	-
Homicide	2	-	2	-	-	-	-	-
Suicide	3	-	2	-	-	-	-	-
Atherosclerosis	1	-	1	-	-	-	-	-
AIDS	1	-	1	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Oscoda County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	7,842	Total Live Births:	103	Total Deaths:	98
Rank Among Counties:	81	Teenage Mothers:	13	Infant Deaths:	-
Per Square Mile:	13.8	Low Weight Births:	6	Neonatal Deaths:	-
		First Births:	32	Postneonatal Deaths:	-
				Perinatal Deaths:	1
				Fetal Deaths:	1
MARRIAGE		DIVORCE			
Marriages:	75	Divorces:	34		
Marriage Rate:	19.1	Divorce Rate:	8.7		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	103	13.1	102	13.1	-	-	1	-
Teenage Mothers	13	126.2	12	117.6	-	-	1	-
Low Weight	6	58.3	6	58.8	-	-	-	-
Under 1,500 Grams	1	-	1	-	-	-	-	-
< 38 Weeks Gestation	13	126.2	12	117.6	-	-	1	-
Prenatal Care Began in 1st Trimester	70	679.6	69	676.5	-	-	1	-

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	-	-	-	-	-	-	-	-
Neonatal Deaths	-	-	-	-	-	-	-	-
Postneonatal Deaths	-	-	-	-	-	-	-	-
Perinatal Deaths	1	-	1	-	-	-	-	-
Fetal Deaths	1	-	1	-	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	98	50	48	96	50	46	-	-	-	2	-	2	
Mortality Rate	12.5	12.9	12.1	12.3	13.0	11.6	-	-	-	-	-	-	
	Age in Years												
Total Deaths	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
White Male	-	-	-	-	-	-	-	2	2	5	12	29	-
White Female	-	-	-	-	-	-	-	1	1	3	7	34	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	1	-	1	-

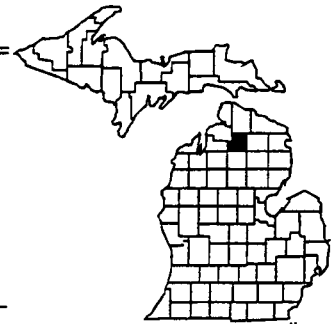
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	98	1,249.7	96	1,231.7	-	-	-	-
Diseases of the Heart	40	510.1	40	513.2	-	-	-	-
Malignant Neoplasms	27	344.3	26	333.6	-	-	-	-
Cerebrovascular Diseases	7	89.3	7	89.8	-	-	-	-
Accidents and Adverse Effects	3	-	3	-	-	-	-	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	6	76.5	6	77.0	-	-	-	-
Pneumonia and Influenza	2	-	2	-	-	-	-	-
Diabetes Mellitus	2	-	2	-	-	-	-	-
Chronic Liver Disease and Cirrhosis	-	-	-	-	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	-	-	-	-	-	-	-	-
Atherosclerosis	-	-	-	-	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Otsego County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	17,957	Total Live Births:	288	Total Deaths:	148
Rank Among Counties:	64	Teenage Mothers:	30	Infant Deaths:	-
Per Square Mile:	34.8	Low Weight Births:	13	Neonatal Deaths:	-
		First Births:	103	Postneonatal Deaths:	-
				Perinatal Deaths:	3
				Fetal Deaths:	3
MARRIAGE		DIVORCE			
Marriages:	186	Divorces:	98		
Marriage Rate:	20.7	Divorce Rate:	10.9		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	288	16.0	285	16.1	-	-	2	-
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	30	104.2	29	101.8	-	-	-	-
Low Weight	13	45.1	13	45.6	-	-	-	-
Under 1,500 Grams	2	-	2	-	-	-	-	-
< 38 Weeks Gestation	36	125.0	36	126.3	-	-	-	-
Prenatal Care Began in 1st Trimester	238	826.4	236	828.1	-	-	2	-

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	-	-	-	-	-	-	-	-
Neonatal Deaths	-	-	-	-	-	-	-	-
Postneonatal Deaths	-	-	-	-	-	-	-	-
Perinatal Deaths	3	-	3	-	-	-	-	-
Fetal Deaths	3	-	3	-	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	148	73	75	147	73	74	-	-	-	1	-	1	
Mortality Rate	8.2	8.3	8.2	8.3	8.4	8.2	-	-	-	-	-	-	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	-	-	-	1	1	1	-	3	7	9	18	108	-
White Male	-	-	-	1	-	1	-	2	5	7	13	44	-
White Female	-	-	-	-	1	-	-	1	1	2	5	64	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	1	-	-	-	-	-

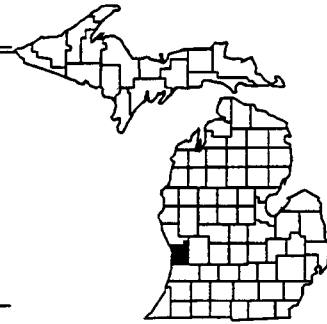
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	148	824.2	147	828.1	-	-	2	-
Diseases of the Heart	46	256.2	46	259.1	-	-	-	-
Malignant Neoplasms	32	178.2	32	180.3	-	-	-	-
Cerebrovascular Diseases	16	89.1	16	90.1	-	-	-	-
Accidents and Adverse Effects	7	39.0	6	33.8	-	-	2	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	9	50.1	9	50.7	-	-	-	-
Pneumonia and Influenza	9	50.1	9	50.7	-	-	-	-
Diabetes Mellitus	3	-	3	-	-	-	-	-
Chronic Liver Disease and Cirrhosis	-	-	-	-	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	1	-	1	-	-	-	-	-
Atherosclerosis	4	-	4	-	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Ottawa County



POPULATION

As of April 1, 1990: 187,768
 Rank Among Counties: 10
 Per Square Mile: 331.1

NATALITY

Total Live Births: 3,193
 Teenage Mothers: 262
 Low Weight Births: 139
 First Births: 1,165

MORTALITY

Total Deaths: 1,152
 Infant Deaths: 17
 Neonatal Deaths: 6
 Postneonatal Deaths: 11
 Perinatal Deaths: 20
 Fetal Deaths: 16

MARRIAGE

Marriages: 946
 Marriage Rate: 10.1

DIVORCE

Divorces: 361
 Divorce Rate: 3.8

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	3,193	17.0	3,103	16.9	19	18.1	68	21.5
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	262	82.1	247	79.6	8	421.1	7	102.9
Low Weight	139	43.5	137	44.2	-	-	2	-
Under 1,500 Grams	22	6.9	22	7.1	-	-	-	-
< 38 Weeks Gestation	476	149.1	455	146.6	7	368.4	13	191.2
Prenatal Care Began in 1st Trimester	2,768	866.9	2,707	872.4	10	526.3	48	705.9

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	17	5.3	15	4.8	2	-	-	-
Neonatal Deaths	6	1.9	5	-	1	-	-	-
Postneonatal Deaths	11	3.4	10	3.2	1	-	-	-
Perinatal Deaths	20	6.2	18	5.8	1	-	1	-
Fetal Deaths	16	5.0	15	4.8	-	-	1	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	1,152	575	577	1,137	564	573	7	5	2	8	6	2	
Mortality Rate	6.1	6.2	6.1	6.2	6.2	6.2	6.7	-	-	2.5	3.9	-	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	17	3	2	1	11	10	11	38	46	65	163	785	-
White Male	12	3	1	-	8	7	9	20	24	36	96	348	-
White Female	3	-	1	1	3	3	1	18	22	26	64	431	-
Black Male	1	-	-	-	-	-	-	-	-	1	1	2	-
Black Female	1	-	-	-	-	-	-	-	-	-	-	1	-
Other Male	-	-	-	-	-	-	1	-	-	2	2	1	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	2	-

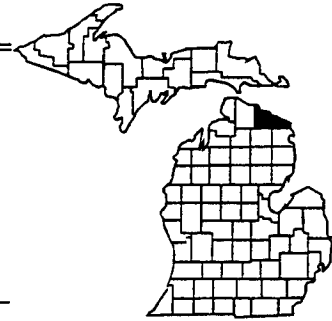
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	1,152	613.5	1,137	619.4	7	667.9	17	28.7
Diseases of the Heart	354	188.5	348	189.6	3	-	-	-
Malignant Neoplasms	277	147.5	274	149.3	-	-	1	-
Cerebrovascular Diseases	76	40.5	75	40.9	-	-	-	-
Accidents and Adverse Effects	57	30.4	57	31.1	-	-	9	15.2
Chronic Obstructive Pulmonary Diseases and Allied Conditions	51	27.2	51	27.8	-	-	-	-
Pneumonia and Influenza	50	26.6	50	27.2	-	-	-	-
Diabetes Mellitus	24	12.8	24	13.1	-	-	-	-
Chronic Liver Disease and Cirrhosis	13	6.9	13	7.1	-	-	-	-
Homicide	5	-	5	-	-	-	2	-
Suicide	18	9.6	17	9.3	1	-	-	-
Atherosclerosis	12	6.4	12	6.5	-	-	-	-
AIDS	5	-	5	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Presque Isle County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	13,743	Total Live Births:	145	Total Deaths:	163
Rank Among Counties:	67	Teenage Mothers:	9	Infant Deaths:	2
Per Square Mile:	21.0	Low Weight Births:	8	Neonatal Deaths:	2
		First Births:	49	Postneonatal Deaths:	-
				Perinatal Deaths:	5
				Fetal Deaths:	3
MARRIAGE		DIVORCE			
Marriages:	84	Divorces:	41		
Marriage Rate:	12.2	Divorce Rate:	6.0		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	145	10.6	144	10.5	-	-	1	-
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	9	62.1	9	62.5	-	-	-	-
Low Weight	8	55.2	8	55.6	-	-	-	-
Under 1,500 Grams	3	-	3	-	-	-	-	-
< 38 Weeks Gestation	18	124.1	18	125.0	-	-	-	-
Prenatal Care Began in 1st Trimester	132	910.3	131	909.7	-	-	1	-

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	2	-	2	-	-	-	-	-
Neonatal Deaths	2	-	2	-	-	-	-	-
Postneonatal Deaths	-	-	-	-	-	-	-	-
Perinatal Deaths	5	-	5	-	-	-	-	-
Fetal Deaths	3	-	3	-	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	163	98	65	163	98	65	-	-	-	-	-	-	
Mortality Rate	11.9	14.5	9.3	11.9	14.5	9.4	-	-	-	-	-	-	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	2	-	-	-	1	-	-	1	4	9	32	114	-
White Male	1	-	-	-	1	-	-	1	3	7	21	64	-
White Female	1	-	-	-	-	-	-	-	1	2	11	50	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

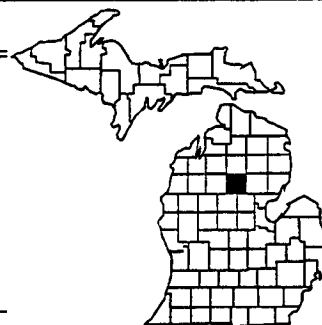
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	163	1,186.1	163	1,193.4	-	-	1	-
Diseases of the Heart	46	334.7	46	336.8	-	-	-	-
Malignant Neoplasms	48	349.3	48	351.4	-	-	-	-
Cerebrovascular Diseases	13	94.6	13	95.2	-	-	-	-
Accidents and Adverse Effects	3	-	3	-	-	-	1	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	8	58.2	8	58.6	-	-	-	-
Pneumonia and Influenza	9	65.5	9	65.9	-	-	-	-
Diabetes Mellitus	2	-	2	-	-	-	-	-
Chronic Liver Disease and Cirrhosis	5	-	5	-	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	-	-	-	-	-	-	-	-
Atherosclerosis	-	-	-	-	-	-	-	-
AIDS	1	-	1	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Roscommon County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	19,776	Total Live Births:	237	Total Deaths:	280
Rank Among Counties:	60	Teenage Mothers:	47	Infant Deaths:	1
Per Square Mile:	37.4	Low Weight Births:	14	Neonatal Deaths:	1
		First Births:	87	Postneonatal Deaths:	-
				Perinatal Deaths:	2
				Fetal Deaths:	1
MARRIAGE		DIVORCE			
Marriages:	150	Divorces:	92		
Marriage Rate:	15.2	Divorce Rate:	9.3		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	237	12.0	232	11.8	-	-	5	.
Teenage Mothers	47	198.3	47	202.6	-	-	-	-
Low Weight	14	59.1	13	56.0	-	-	1	.
Under 1,500 Grams	2	.	2	.	-	-	-	-
< 38 Weeks Gestation	27	113.9	27	116.4	-	-	-	-
Prenatal Care Began in 1st Trimester	184	776.4	180	775.9	-	-	4	.

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	1	.	1	.	-	-	-	-
Neonatal Deaths	1	.	1	.	-	-	-	-
Postneonatal Deaths	-	-	-	-	-	-	-	-
Perinatal Deaths	2	.	2	.	-	-	-	-
Fetal Deaths	1	.	1	.	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	280	145	135	278	144	134	-	-	-	2	1	1	
Mortality Rate	14.2	15.0	13.3	14.2	15.1	13.3	-	-	-	.	.	.	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	1	-	-	-	1	-	-	5	9	19	55	190	-
White Male	1	-	-	-	1	-	-	3	7	12	30	90	-
White Female	-	-	-	-	-	-	-	2	2	7	25	98	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	1	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	1	-

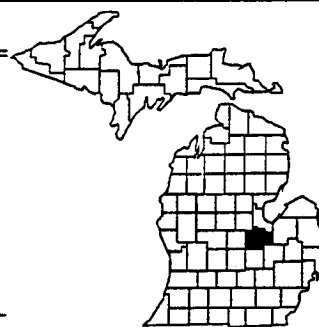
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	280	1,415.9	278	1,417.3	-	-	1	.
Diseases of the Heart	109	551.2	108	550.6	-	-	-	-
Malignant Neoplasms	67	338.8	67	341.6	-	-	-	-
Cerebrovascular Diseases	18	91.0	18	91.8	-	-	-	-
Accidents and Adverse Effects	5	.	4	.	-	-	1	.
Chronic Obstructive Pulmonary Diseases and Allied Conditions	19	96.1	19	96.9	-	-	-	-
Pneumonia and Influenza	5	.	5	.	-	-	-	-
Diabetes Mellitus	9	45.5	9	45.9	-	-	-	-
Chronic Liver Disease and Cirrhosis	3	.	3	.	-	-	-	-
Homicide	1	.	1	.	-	-	-	-
Suicide	4	.	4	.	-	-	-	-
Atherosclerosis	2	.	2	.	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Saginaw County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	211,946	Total Live Births:	3,534	Total Deaths:	1,778
Rank Among Counties:	9	Teenage Mothers:	645	Infant Deaths:	51
Per Square Mile:	260.0	Low Weight Births:	336	Neonatal Deaths:	35
		First Births:	1,364	Postneonatal Deaths:	16
				Perinatal Deaths:	51
				Fetal Deaths:	18
MARRIAGE		DIVORCE			
Marriages:	1,621	Divorces:	930		
Marriage Rate:	15.3	Divorce Rate:	8.8		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	3,534	16.7	2,475	14.4	1,019	27.2	34	13.8
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	645	182.5	299	120.8	338	331.7	6	176.5
Low Weight	336	95.1	172	69.5	162	159.0	2	*
Under 1,500 Grams	74	20.9	37	14.9	37	36.3	-	-
< 38 Weeks Gestation	753	213.1	440	177.8	307	301.3	5	*
Prenatal Care Began in 1st Trimester	2,747	777.3	2,057	831.1	664	651.6	24	705.9

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	51	14.4	21	8.5	30	29.4	-	-
Neonatal Deaths	35	9.9	16	6.5	19	18.6	-	-
Postneonatal Deaths	16	4.5	5	*	11	10.8	-	-
Perinatal Deaths	51	14.4	24	9.7	25	24.4	-	-
Fetal Deaths	18	5.1	9	3.6	7	6.8	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	1,778	887	891	1,465	733	732	308	153	155	5	1	4	
Mortality Rate	8.4	8.8	8.0	8.5	8.9	8.2	8.2	9.0	7.6	-	-	-	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	51	3	4	5	14	22	20	55	80	150	304	1,070	-
White Male	10	2	2	4	4	10	7	24	32	73	151	414	-
White Female	11	-	1	1	6	3	4	14	20	49	88	535	-
Black Male	13	1	-	-	2	9	5	11	17	13	33	49	-
Black Female	17	-	1	-	2	-	4	5	11	15	31	69	-
Other Male	-	-	-	-	-	-	-	-	-	-	1	-	-
Other Female	-	-	-	-	-	-	-	1	-	-	-	3	-

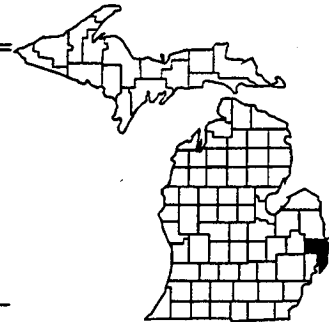
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	1,778	838.9	1,465	851.4	308	823.3	26	41.3
Diseases of the Heart	569	268.5	495	287.7	72	192.5	1	*
Malignant Neoplasms	445	210.0	375	217.9	68	181.8	-	-
Cerebrovascular Diseases	139	65.6	115	66.8	24	64.2	1	*
Accidents and Adverse Effects	64	30.2	57	33.1	7	18.7	11	17.5
Chronic Obstructive Pulmonary Diseases and Allied Conditions	68	32.1	62	36.0	6	16.0	-	-
Pneumonia and Influenza	49	23.1	44	25.6	5	*	-	-
Diabetes Mellitus	57	26.9	41	23.8	16	42.8	-	-
Chronic Liver Disease and Cirrhosis	16	7.5	11	6.4	5	*	-	-
Homicide	39	18.4	13	7.6	26	69.5	6	9.5
Suicide	24	11.3	20	11.6	4	*	3	*
Atherosclerosis	23	10.9	19	11.0	4	*	-	-
AIDS	6	2.8	4	*	2	*	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of St. Clair County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	145,607	Total Live Births:	2,110	Total Deaths:	1,277
Rank Among Counties:	14	Teenage Mothers:	246	Infant Deaths:	16
Per Square Mile:	198.3	Low Weight Births:	93	Neonatal Deaths:	12
		First Births:	837	Postneonatal Deaths:	4
				Perinatal Deaths:	17
				Fetal Deaths:	8
MARRIAGE		DIVORCE			
Marriages:	1,134	Divorces:	741		
Marriage Rate:	15.6	Divorce Rate:	10.2		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	2,110	14.5	2,029	14.4	51	16.9	27	21.3
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	246	116.6	230	113.4	11	215.7	4	*
Low Weight	93	44.1	92	45.3	1	.	.	.
Under 1,500 Grams	18	8.5	17	8.4	1	.	.	.
< 38 Weeks Gestation	315	149.3	300	147.9	9	176.5	5	.
Prenatal Care Began in 1st Trimester	1,692	801.9	1,641	808.8	31	607.8	17	629.6

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	16	7.6	14	6.9	2	.	.	.
Neonatal Deaths	12	5.7	11	5.4	1	.	.	.
Postneonatal Deaths	4	.	3	.	1	.	.	.
Perinatal Deaths	17	8.0	16	7.9	1	.	.	.
Fetal Deaths	8	3.8	7	3.4	1	.	.	.

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	1,277	696	581	1,237	671	566	32	20	12	7	5	2	
Mortality Rate	8.8	9.8	7.8	8.8	9.8	7.8	10.6	13.7	7.7	5.5	.	.	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	16	2	2	3	8	9	8	36	37	96	205	855	.
White Male	12	2	1	3	6	7	6	25	25	65	127	392	.
White Female	2	.	.	.	2	1	2	7	9	28	75	440	.
Black Male	2	.	1	.	.	1	.	1	1	1	1	12	.
Black Female	.	.	.	.	.	.	.	1	2	1	1	7	.
Other Male	.	.	.	.	.	.	.	2	.	1	.	2	.
Other Female	.	.	.	.	.	.	.	.	.	.	1	1	.

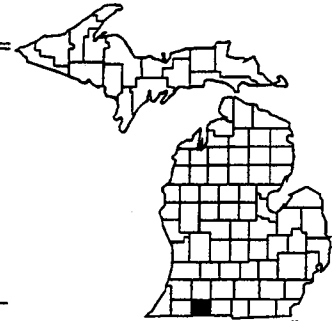
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	1,277	877.0	1,237	875.3	32	1,061.0	15	35.2
Diseases of the Heart	472	324.2	461	326.2	6	198.9	.	.
Malignant Neoplasms	332	228.0	318	225.0	12	397.9	.	.
Cerebrovascular Diseases	89	61.1	89	63.0	.	.	.	.
Accidents and Adverse Effects	43	29.5	42	29.7	.	.	10	23.5
Chronic Obstructive Pulmonary Diseases and Allied Conditions	58	39.8	55	38.9	3	.	.	.
Pneumonia and Influenza	32	22.0	31	21.9	1	.	.	.
Diabetes Mellitus	34	23.4	33	23.4	1	.	.	.
Chronic Liver Disease and Cirrhosis	11	7.6	11	7.8	.	.	.	.
Homicide	8	5.5	8	5.7	.	.	1	.
Suicide	22	15.1	21	14.9	1	.	1	.
Atherosclerosis	8	5.5	8	5.7	.	.	.	.
AIDS	4	.	3	.	1	.	.	.

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of St. Joseph County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	58,913	Total Live Births:	811	Total Deaths:	562
Rank Among Counties:	28	Teenage Mothers:	125	Infant Deaths:	11
Per Square Mile:	117.2	Low Weight Births:	51	Neonatal Deaths:	5
		First Births:	303	Postneonatal Deaths:	6
				Perinatal Deaths:	12
				Fetal Deaths:	8
MARRIAGE		DIVORCE			
Marriages:	536	Divorces:	362		
Marriage Rate:	18.2	Divorce Rate:	12.3		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	811	13.8	794	13.8	23	14.3	4	.
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	125	154.1	122	155.6	3	.	-	-
Low Weight	51	62.9	51	65.1	-	-	-	-
Under 1,500 Grams	9	11.1	9	11.5	-	-	-	-
< 38 Weeks Gestation	119	146.7	111	141.6	7	304.3	1	.
Prenatal Care Began in 1st Trimester	627	773.1	612	780.6	13	565.2	2	.

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	11	13.6	11	14.0	-	-	-	-
Neonatal Deaths	5	.	5	.	-	-	-	-
Postneonatal Deaths	6	7.4	6	7.7	-	-	-	-
Perinatal Deaths	12	14.7	11	13.9	-	-	1	.
Fetal Deaths	8	9.8	7	8.8	-	-	1	.

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	562	286	276	536	276	260	23	9	14	3	1	2	
Mortality Rate	9.5	9.9	9.2	9.4	9.9	9.0	14.3	11.5	16.9	.	.	.	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	11	2	1	1	3	5	2	12	25	39	98	363	-
White Male	9	2	-	1	1	3	2	9	15	19	61	154	-
White Female	2	-	1	-	2	2	-	3	9	17	34	190	-
Black Male	-	-	-	-	-	-	-	-	1	2	-	6	-
Black Female	-	-	-	-	-	-	-	-	-	-	3	11	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	1	-
Other Female	-	-	-	-	-	-	-	-	1	-	-	1	-

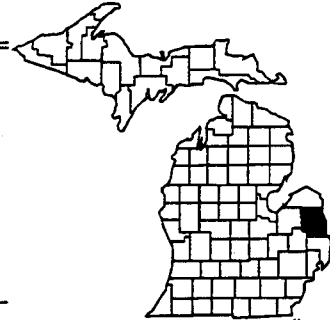
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	562	953.9	536	943.4	23	1,430.3	7	39.5
Diseases of the Heart	178	302.1	170	299.2	8	497.5	-	-
Malignant Neoplasms	133	225.8	123	216.5	9	559.7	1	.
Cerebrovascular Diseases	36	61.1	35	61.6	1	.	-	-
Accidents and Adverse Effects	27	45.8	26	45.8	-	-	2	.
Chronic Obstructive Pulmonary Diseases and Allied Conditions	30	50.9	29	51.0	-	-	-	-
Pneumonia and Influenza	26	44.1	26	45.8	-	-	-	-
Diabetes Mellitus	32	54.3	31	54.6	1	.	-	-
Chronic Liver Disease and Cirrhosis	3	.	3	.	-	-	-	-
Homicide	1	.	1	.	-	-	-	-
Suicide	7	11.9	7	12.3	-	-	-	-
Atherosclerosis	6	10.2	5	.	1	.	-	-
AIDS	5	.	5	.	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Sanilac County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	39,928	Total Live Births:	501	Total Deaths:	450
Rank Among Counties:	38	Teenage Mothers:	48	Infant Deaths:	9
Per Square Mile:	41.4	Low Weight Births:	32	Neonatal Deaths:	7
		First Births:	187	Postneonatal Deaths:	2
				Perinatal Deaths:	5
				Fetal Deaths:	1
MARRIAGE		DIVORCE			
Marriages:	317	Divorces:	174		
Marriage Rate:	15.9	Divorce Rate:	8.7		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	501	12.5	496	12.5	-	-	5	.
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	48	95.8	48	96.8	-	-	-	-
Low Weight	32	63.9	32	64.5	-	-	-	-
Under 1,500 Grams	6	12.0	6	12.1	-	-	-	-
< 38 Weeks Gestation	80	159.7	79	159.3	-	-	1	.
Prenatal Care Began in 1st Trimester	382	762.5	379	764.1	-	-	3	.

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	9	18.0	9	18.1	-	-	-	-
Neonatal Deaths	7	14.0	7	14.1	-	-	-	-
Postneonatal Deaths	2	.	2	.	-	-	-	-
Perinatal Deaths	5	.	5	.	-	-	-	-
Fetal Deaths	1	.	1	.	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Total	Black		Total	Other		
	Total	Male	Female	Total	Male	Female		Male	Female		Male	Female	
Deaths	450	238	212	449	238	211	-	-	-	1	-	1	
Mortality Rate	11.3	12.2	10.4	11.3	12.2	10.5	-	-	-	.	-	.	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	9	2	-	-	5	2	3	10	17	27	76	299	-
White Male	4	1	-	-	4	1	2	6	10	17	42	151	-
White Female	5	1	-	-	1	1	1	4	7	10	34	147	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	1	-

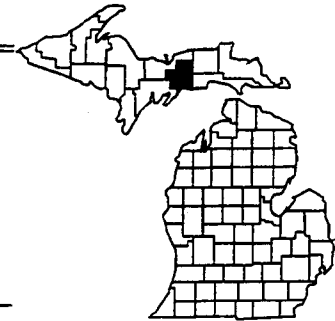
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	450	1,127.0	449	1,133.5	-	-	7	59.6
Diseases of the Heart	138	345.6	138	348.4	-	-	-	-
Malignant Neoplasms	117	293.0	117	295.4	-	-	-	-
Cerebrovascular Diseases	34	85.2	34	85.8	-	-	-	-
Accidents and Adverse Effects	24	60.1	24	60.6	-	-	5	.
Chronic Obstructive Pulmonary Diseases and Allied Conditions	15	37.6	15	37.9	-	-	-	-
Pneumonia and Influenza	6	15.0	6	15.1	-	-	1	.
Diabetes Mellitus	19	47.6	18	45.4	-	-	-	-
Chronic Liver Disease and Cirrhosis	5	.	5	.	-	-	-	-
Homicide	1	.	1	.	-	-	-	-
Suicide	4	.	4	.	-	-	1	.
Atherosclerosis	2	.	2	.	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Schoolcraft County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	8,302	Total Live Births:	90	Total Deaths:	96
Rank Among Counties:	79	Teenage Mothers:	14	Infant Deaths:	-
Per Square Mile:	7.1	Low Weight Births:	3	Neonatal Deaths:	-
		First Births:	36	Postneonatal Deaths:	-
				Perinatal Deaths:	-
				Fetal Deaths:	-
MARRIAGE		DIVORCE			
Marriages:	88	Divorces:	37		
Marriage Rate:	21.2	Divorce Rate:	8.9		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	90	10.8	88	11.3	-	-	1	.
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	14	155.6	13	147.7	-	-	1	.
Low Weight	3	.	3	.	-	-	-	-
Under 1,500 Grams	1	.	1	.	-	-	-	-
< 38 Weeks Gestation	13	144.4	13	147.7	-	-	-	-
Prenatal Care Began in 1st Trimester	70	777.8	68	772.7	-	-	1	.

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	-	-	-	-	-	-	-	-
Neonatal Deaths	-	-	-	-	-	-	-	-
Postneonatal Deaths	-	-	-	-	-	-	-	-
Perinatal Deaths	-	-	-	-	-	-	-	-
Fetal Deaths	-	-	-	-	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	96	50	46	94	50	44	-	-	-	2	-	2	
Mortality Rate	11.6	12.5	10.7	12.1	13.5	10.9	-	-	-	.	-	.	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	-	-	1	-	-	-	-	2	2	6	19	66	-
White Male	-	-	1	-	-	-	-	1	2	1	10	35	-
White Female	-	-	-	-	-	-	-	1	-	5	8	30	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	1	1	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	96	1,156.3	94	1,211.2	-	-	1	.
Diseases of the Heart	34	409.5	34	438.1	-	-	-	-
Malignant Neoplasms	22	265.0	21	270.6	-	-	-	-
Cerebrovascular Diseases	3	.	3	.	-	-	-	-
Accidents and Adverse Effects	3	.	3	.	-	-	1	.
Chronic Obstructive Pulmonary Diseases and Allied Conditions	3	.	3	.	-	-	-	-
Pneumonia and Influenza	7	84.3	7	90.2	-	-	-	-
Diabetes Mellitus	4	.	4	.	-	-	-	-
Chronic Liver Disease and Cirrhosis	-	-	-	-	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	2	.	2	.	-	-	-	-
Atherosclerosis	-	-	-	-	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Shiawassee County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	69,770	Total Live Births:	980	Total Deaths:	558
Rank Among Counties:	26	Teenage Mothers:	138	Infant Deaths:	4
Per Square Mile:	129.1	Low Weight Births:	54	Neonatal Deaths:	2
		First Births:	402	Postneonatal Deaths:	2
				Perinatal Deaths:	10
				Fetal Deaths:	8
MARRIAGE		DIVORCE			
Marriages:	599	Divorces:	298		
Marriage Rate:	17.2	Divorce Rate:	8.5		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	980	14.0	973	14.1	2	*	3	*
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	138	140.8	137	140.8	-	-	1	-
Low Weight	54	55.1	54	55.5	-	-	-	-
Under 1,500 Grams	9	9.2	9	9.2	-	-	-	-
< 38 Weeks Gestation	133	135.7	131	134.6	1	*	-	-
Prenatal Care Began in 1st Trimester	808	824.5	803	825.3	2	*	2	*

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	4	*	4	*	-	-	-	-
Neonatal Deaths	2	*	2	*	-	-	-	-
Postneonatal Deaths	2	*	2	*	-	-	-	-
Perinatal Deaths	10	10.1	10	10.2	-	-	-	-
Fetal Deaths	8	8.1	8	8.2	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	558	286	272	554	284	270	2	1	1	2	1	1	
Mortality Rate	8.0	8.4	7.6	8.0	8.4	7.6	*	*	*	*	*	*	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	4	-	-	-	8	5	6	23	22	43	119	328	-
White Male	3	-	-	-	5	4	3	16	7	30	74	142	-
White Female	1	-	-	-	3	1	3	7	13	13	44	185	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	1	-
Black Female	-	-	-	-	-	-	-	-	-	-	1	-	-
Other Male	-	-	-	-	-	-	-	-	1	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	1	-	-	-	-

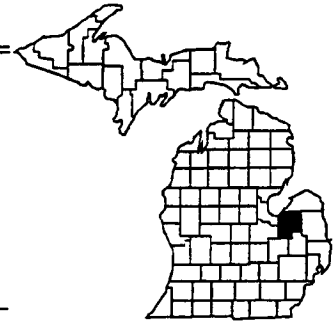
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	558	799.8	554	802.5	2	*	8	37.7
Diseases of the Heart	168	240.8	166	240.5	-	-	-	-
Malignant Neoplasms	144	206.4	144	208.6	-	-	1	*
Cerebrovascular Diseases	30	43.0	30	43.5	-	-	-	-
Accidents and Adverse Effects	37	53.0	37	53.6	-	-	3	*
Chronic Obstructive Pulmonary Diseases and Allied Conditions	24	34.4	24	34.8	-	-	-	-
Pneumonia and Influenza	22	31.5	22	31.9	-	-	-	-
Diabetes Mellitus	23	33.0	23	33.3	-	-	-	-
Chronic Liver Disease and Cirrhosis	3	*	3	*	-	-	-	-
Homicide	1	*	1	*	-	-	-	-
Suicide	6	8.6	6	8.7	-	-	3	*
Atherosclerosis	13	18.6	12	17.4	1	*	-	-
AIDS	1	*	1	*	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Tuscola County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	55,498	Total Live Births:	811	Total Deaths:	447
Rank Among Counties:	31	Teenage Mothers:	89	Infant Deaths:	3
Per Square Mile:	68.3	Low Weight Births:	39	Neonatal Deaths:	2
		First Births:	316	Postneonatal Deaths:	1
				Perinatal Deaths:	7
				Fetal Deaths:	6
MARRIAGE		DIVORCE			
Marriages:	409	Divorces:	272		
Marriage Rate:	14.7	Divorce Rate:	9.8		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	811	14.6	801	14.7	6	12.4	4	.
Teenage Mothers	89	109.7	87	108.6	1	.	1	.
Low Weight	39	48.1	38	47.4	-	-	1	.
Under 1,500 Grams	10	12.3	9	11.2	-	-	1	.
< 38 Weeks Gestation	123	151.7	120	149.8	2	.	1	.
Prenatal Care Began in 1st Trimester	655	807.6	648	809.0	3	.	4	.

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	3	.	3	.	-	-	-	-
Neonatal Deaths	2	.	2	.	-	-	-	-
Postneonatal Deaths	1	.	1	.	-	-	-	-
Perinatal Deaths	7	8.6	7	8.7	-	-	-	-
Fetal Deaths	6	7.3	6	7.4	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	447	217	230	442	215	227	1	1	-	4	1	3	
Mortality Rate	8.1	7.9	8.2	8.1	8.0	8.2	.	.	-	.	.	.	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	3	-	1	2	1	3	5	16	17	37	76	286	-
White Male	3	-	1	1	1	3	5	13	10	17	41	120	-
White Female	-	-	-	1	-	-	-	3	6	20	33	164	-
Black Male	-	-	-	-	-	-	-	-	-	-	1	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	1	-
Other Female	-	-	-	-	-	-	-	1	-	-	1	1	-

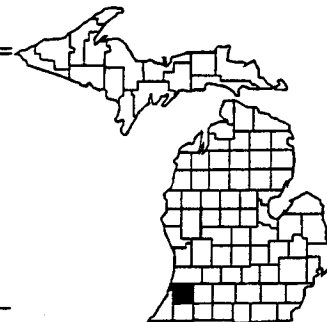
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	447	805.4	442	811.7	1	.	4	.
Diseases of the Heart	136	245.1	135	247.9	-	-	-	-
Malignant Neoplasms	115	207.2	114	209.4	-	-	-	-
Cerebrovascular Diseases	30	54.1	30	55.1	-	-	-	-
Accidents and Adverse Effects	23	41.4	22	40.4	1	.	3	.
Chronic Obstructive Pulmonary Diseases and Allied Conditions	20	36.0	20	36.7	-	-	-	-
Pneumonia and Influenza	14	25.2	14	25.7	-	-	-	-
Diabetes Mellitus	25	45.0	25	45.9	-	-	-	-
Chronic Liver Disease and Cirrhosis	5	.	5	.	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	13	23.4	12	22.0	-	-	1	.
Atherosclerosis	5	.	5	.	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Van Buren County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	70,060	Total Live Births:	1,109	Total Deaths:	627
Rank Among Counties:	25	Teenage Mothers:	191	Infant Deaths:	10
Per Square Mile:	114.6	Low Weight Births:	77	Neonatal Deaths:	5
		First Births:	405	Postneonatal Deaths:	5
				Perinatal Deaths:	4
				Fetal Deaths:	2
MARRIAGE		DIVORCE			
Marriages:	598	Divorces:	333		
Marriage Rate:	17.1	Divorce Rate:	9.5		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	1,109	15.8	987	15.3	102	21.6	16	17.4
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	191	172.2	150	152.0	37	362.7	4	.
Low Weight	77	69.4	64	64.8	13	127.5	.	.
Under 1,500 Grams	12	10.8	11	11.1	1	.	.	.
< 38 Weeks Gestation	179	161.4	154	156.0	22	215.7	2	.
Prenatal Care Began in 1st Trimester	759	684.4	710	719.4	42	411.8	7	437.5

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	10	9.0	9	9.1	1	.	.	.
Neonatal Deaths	5	.	5	.	.	.	.	.
Postneonatal Deaths	5	.	4	.	1	.	.	.
Perinatal Deaths	4	.	3	.	1	.	.	.
Fetal Deaths	2	.	1	.	1	.	.	.

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	627	335	292	557	292	265	63	38	25	7	5	2	
Mortality Rate	8.9	9.8	8.2	8.6	9.3	8.1	13.3	16.9	10.1	7.6	.	.	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	10	1	3	3	-	6	4	14	30	57	98	401	-
White Male	4	1	1	2	-	3	3	10	13	37	53	165	-
White Female	5	-	1	-	-	1	-	1	11	17	36	193	-
Black Male	1	-	1	1	-	1	1	2	3	1	4	23	-
Black Female	-	-	-	-	-	-	-	-	3	1	5	16	-
Other Male	-	-	-	-	-	1	-	-	-	1	-	3	-
Other Female	-	-	-	-	-	-	-	1	-	-	-	1	-

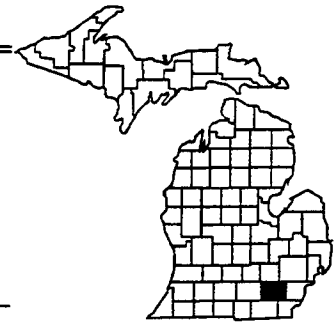
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	627	894.9	557	864.7	63	1,333.3	7	32.9
Diseases of the Heart	187	266.9	169	262.4	17	359.8	-	-
Malignant Neoplasms	157	224.1	137	212.7	18	381.0	-	-
Cerebrovascular Diseases	47	67.1	40	62.1	6	127.0	-	-
Accidents and Adverse Effects	44	62.8	35	54.3	7	148.1	4	.
Chronic Obstructive Pulmonary Diseases and Allied Conditions	28	40.0	25	38.8	3	.	1	.
Pneumonia and Influenza	19	27.1	17	26.4	2	.	-	-
Diabetes Mellitus	15	21.4	13	20.2	2	.	-	-
Chronic Liver Disease and Cirrhosis	5	.	5	.	-	-	-	-
Homicide	5	.	3	.	2	.	2	.
Suicide	5	.	5	.	-	-	-	-
Atherosclerosis	10	14.3	10	15.5	-	-	-	-
AIDS	2	.	2	.	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Washtenaw County



POPULATION		NATALITY		MORTALITY	
As of April 1, 1990:	282,937	Total Live Births:	4,093	Total Deaths:	1,593
Rank Among Counties:	6	Teenage Mothers:	324	Infant Deaths:	39
Per Square Mile:	398.4	Low Weight Births:	261	Neonatal Deaths:	28
		First Births:	1,775	Postneonatal Deaths:	11
				Perinatal Deaths:	45
				Fetal Deaths:	20
MARRIAGE		DIVORCE			
Marriages:	2,229	Divorces:	1,216		
Marriage Rate:	15.8	Divorce Rate:	8.6		

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	4,093	14.5	3,168	13.3	633	19.8	232	18.0
Teenage Mothers	324	79.2	178	56.2	143	225.9	1	*
Low Weight	261	63.8	150	47.3	90	142.2	17	73.3
Under 1,500 Grams	64	15.6	32	10.1	28	44.2	3	*
< 38 Weeks Gestation	616	150.5	434	137.0	151	238.5	28	120.7
Prenatal Care Began in 1st Trimester	3,306	807.7	2,693	850.1	404	638.2	187	806.0

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	39	9.5	24	7.6	14	22.1	1	*
Neonatal Deaths	28	6.8	17	5.4	10	15.8	1	*
Postneonatal Deaths	11	2.7	7	2.2	4	*	-	-
Perinatal Deaths	45	10.9	23	7.2	20	31.1	1	*
Fetal Deaths	20	4.9	8	2.5	11	17.1	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	1,593	759	834	1,378	637	741	196	112	84	19	10	9	
Mortality Rate	5.6	5.4	5.8	5.8	5.4	6.2	6.1	7.3	5.1	1.5	1.5	1.4	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	39	4	2	3	11	19	20	57	86	122	256	974	-
White Male	14	3	-	2	7	6	14	27	49	49	124	342	-
White Female	10	-	-	1	3	8	3	16	21	49	93	537	-
Black Male	11	-	-	-	-	2	2	6	12	16	20	43	-
Black Female	3	1	-	-	1	1	1	7	4	8	16	42	-
Other Male	1	-	2	-	-	1	-	1	-	-	3	2	-
Other Female	-	-	-	-	-	1	-	-	-	-	-	8	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	1,593	563.0	1,378	578.8	196	613.9	20	27.3
Diseases of the Heart	484	171.1	427	179.3	52	162.9	2	*
Malignant Neoplasms	413	146.0	354	148.7	55	172.3	1	*
Cerebrovascular Diseases	100	35.3	92	38.6	6	18.8	1	*
Accidents and Adverse Effects	66	23.3	54	22.7	10	31.3	7	9.5
Chronic Obstructive Pulmonary Diseases and Allied Conditions	52	18.4	51	21.4	1	*	-	-
Pneumonia and Influenza	53	18.7	50	21.0	3	*	-	-
Diabetes Mellitus	51	18.0	38	16.0	12	37.6	-	-
Chronic Liver Disease and Cirrhosis	15	5.3	10	4.2	5	*	-	-
Homicide	9	3.2	6	2.5	3	*	2	*
Suicide	26	9.2	26	10.9	-	-	2	*
Atherosclerosis	11	3.9	9	3.8	2	*	-	-
AIDS	16	5.7	14	5.9	2	*	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Wayne County



POPULATION
 As of April 1, 1990: 2,111,687
 Rank Among Counties: 1
 Per Square Mile: 3,433.1

NATALITY
 Total Live Births: 37,264
 Teenage Mothers: 6,306
 Low Weight Births: 4,071
 First Births: 13,765

MORTALITY
 Total Deaths: 20,857
 Infant Deaths: 590
 Neonatal Deaths: 423
 Postneonatal Deaths: 167
 Perinatal Deaths: 555
 Fetal Deaths: 191

MARRIAGE
 Marriages: 11,701
 Marriage Rate: 11.1

DIVORCE
 Divorces: 7,639
 Divorce Rate: 7.2

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	37,264	17.6	17,358	14.1	19,376	22.8	429	14.1
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	6,306	169.2	1,506	86.8	4,749	245.1	42	97.9
Low Weight	4,071	109.2	1,026	59.1	3,007	155.2	29	67.6
Under 1,500 Grams	904	24.3	180	10.4	715	36.9	7	16.3
< 38 Weeks Gestation	8,113	217.7	2,682	154.5	5,330	275.1	73	170.2
Prenatal Care Began in 1st Trimester	27,064	726.3	14,311	824.5	12,376	638.7	320	745.9

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	590	15.8	135	7.8	449	23.2	6	14.0
Neonatal Deaths	423	11.4	88	5.1	332	17.1	3	-
Postneonatal Deaths	167	4.5	47	2.7	117	6.0	3	-
Perinatal Deaths	555	14.8	153	8.8	391	20.1	6	13.9
Fetal Deaths	191	5.1	82	4.7	101	5.2	3	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Black			Other			
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	
Deaths	20,857	10,960	9,895	12,046	6,106	5,940	8,683	4,776	3,905	113	69	44	
Mortality Rate	9.9	10.9	8.9	9.8	10.2	9.4	10.2	12.3	8.4	3.7	4.6	2.8	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	590	91	34	52	190	304	321	882	1,390	1,756	3,807	11,437	3
White Male	70	18	6	13	36	69	70	233	362	523	1,236	3,469	1
White Female	65	12	2	4	15	18	28	90	187	340	914	4,264	1
Black Male	259	31	17	20	112	167	160	378	526	500	896	1,710	-
Black Female	188	30	8	15	25	49	58	177	298	377	736	1,943	1
Other Male	5	-	1	-	2	-	1	2	12	8	13	25	-
Other Female	1	-	-	-	-	1	2	2	5	6	10	17	-

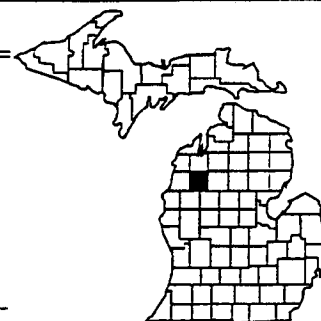
Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	20,857	987.7	12,046	979.6	8,683	1,019.6	367	61.3
Diseases of the Heart	7,258	343.7	4,631	376.6	2,592	304.4	13	2.2
Malignant Neoplasms	4,685	221.9	2,798	227.5	1,865	219.0	22	3.7
Cerebrovascular Diseases	1,105	52.3	689	56.0	407	47.8	2	-
Accidents and Adverse Effects	628	29.7	351	28.5	269	31.6	91	15.2
Chronic Obstructive Pulmonary Diseases and Allied Conditions	662	31.3	468	38.1	191	22.4	5	-
Pneumonia and Influenza	664	31.4	413	33.6	248	29.1	6	1.0
Diabetes Mellitus	574	27.2	305	24.8	267	31.4	-	-
Chronic Liver Disease and Cirrhosis	360	17.0	179	14.6	176	20.7	-	-
Homicide	696	33.0	107	8.7	585	68.7	125	20.9
Suicide	238	11.3	158	12.8	79	9.3	19	3.2
Atherosclerosis	111	5.3	81	6.6	30	3.5	-	-
AIDS	294	13.9	67	5.4	226	26.5	3	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

Profile of Wexford County



POPULATION
 As of April 1, 1990: 26,360
 Rank Among Counties: 49
 Per Square Mile: 46.6

NATALITY
 Total Live Births: 408
 Teenage Mothers: 42
 Low Weight Births: 27
 First Births: 133

MORTALITY
 Total Deaths: 242
 Infant Deaths: 3
 Neonatal Deaths: 1
 Postneonatal Deaths: 2
 Perinatal Deaths: 2
 Fetal Deaths: 1

MARRIAGE
 Marriages: 263
 Marriage Rate: 20.0

DIVORCE
 Divorces: 168
 Divorce Rate: 12.7

NATALITY BY RACE OF MOTHER

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	408	15.5	405	15.5	-	-	3	.
Teenage Mothers	42	102.9	42	103.7	-	-	-	-
Low Weight	27	66.2	27	66.7	-	-	-	-
Under 1,500 Grams	1	.	1	.	-	-	-	-
< 38 Weeks Gestation	63	154.4	62	153.1	-	-	1	.
Prenatal Care Began in 1st Trimester	313	767.2	311	767.9	-	-	2	.

Note: Rate is per 1,000 population in 1990 Census and ratio per 1,000 live births in 1992 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	3	.	3	.	-	-	-	-
Neonatal Deaths	1	.	1	.	-	-	-	-
Postneonatal Deaths	2	.	2	.	-	-	-	-
Perinatal Deaths	2	.	2	.	-	-	-	-
Fetal Deaths	1	.	1	.	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1992 in specified group.

MORTALITY

	All Races			White			Total	Black		Total	Other		
	Total	Male	Female	Total	Male	Female		Male	Female		Male	Female	
Deaths	242	116	126	241	115	126	-	-	-	1	1	-	
Mortality Rate	9.2	9.0	9.3	9.2	9.1	9.4	-	-	-	.	.	-	
	Age in Years												
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	3	-	-	1	-	3	2	3	8	13	35	174	-
White Male	1	-	-	-	-	2	2	1	6	9	16	78	-
White Female	2	-	-	1	-	-	-	2	2	4	19	96	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	1	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Mortality rate is per 1,000 population in 1990 Census in specified group.

LEADING CAUSES OF DEATH

	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	242	918.1	241	924.8	-	-	1	.
Diseases of the Heart	82	311.1	82	314.7	-	-	-	-
Malignant Neoplasms	50	189.7	50	191.9	-	-	-	-
Cerebrovascular Diseases	20	75.9	20	76.7	-	-	-	-
Accidents and Adverse Effects	9	34.1	8	30.7	-	-	-	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	7	26.6	7	26.9	-	-	-	-
Pneumonia and Influenza	15	56.9	15	57.6	-	-	-	-
Diabetes Mellitus	11	41.7	11	42.2	-	-	-	-
Chronic Liver Disease and Cirrhosis	1	.	1	.	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	3	.	3	.	-	-	-	-
Atherosclerosis	5	.	5	.	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 population in 1990 Census in specified group.

NATALITY

SECTION I



NATALITY

KEY TRENDS

Demographic Between 1900 and 1992, the number of total births (live births and fetal deaths) has varied considerably. The general trend has been increasing numbers of total births from 1900 through 1957, declining numbers through 1976 and fairly stable numbers until 1989. During 1989 through 1992 there were more total births each year in Michigan than had been born to Michigan residents since 1971. There was a 3.8 percent drop in the number of total births between 1991 and 1992.

In the last twenty years fertility rates for white and black women decreased with the fertility rates for white women reaching a low level by about 1975 and for black women by about 1985. Fertility rates for white women have remained fairly stable since 1975 while rates for black women have risen since 1985. During this time period there has been an increase in the percent of births to minority race populations from 18.3 percent to 22.5 percent of the births.

Since 1980 birth rates have fluctuated from a low in 1983 of 31.3 births per 1,000 white women 15 to 19 years of age to a high of 43.2 in 1990. Rates for black teenage women have fluctuated from a low of 80.5 in 1983 to a high of 135.6 in 1989.

Prenatal Care A national goal is to increase to at least 90 percent the proportion of pregnant women who initiate prenatal care in the first trimester of pregnancy by the year 2000. In Michigan, the percentage of mothers who initiated care early increased from 69 percent in 1970 to a peak of 81 percent in 1985 and was about 79 percent in 1992. The highest percentages of mothers who initiated care early occurred among white and Asian

An Overview, 1992

Total Resident Births (live births & fetal deaths)	144,582
Total Resident Live Births	143,827
Resident Live Births per Day	394
Total Resident Fetal Deaths	755
Resident Fetal Deaths per Day	2
Crude Birth Rate	15.5
Fertility Rate	64.9
Fetal Death Ratio	5.2
First Births (Percent of Total Live Births)	39.1
Median Birth Weight in Grams (Live Births)	3,377
Median Birth Weight in Grams (Fetal Deaths)	907.3
Low Weight Live Births	10,829
Low Weight Birth Ratio	75.3
Median Age of Mother (Live Births)	26
Median Age of Mother (Fetal Deaths)	26
Live Births with Congenital Anomalies	2,108
Congenital Anomalies per 10,000 Live Births	146.6
Live Births with No Prenatal Care	2,102
No Prenatal Care Ratio	14.6
Home Births	899
Live Born Sets of Twins	1,882
Live Born Sets of Triplets	45
Live Born Multiple Births of Four or More	2
Male Live Births per 100 Female Live Births	1.1

Source: Office of the State Registrar and Division for Health Statistics, MDPH

and Pacific Islander mothers and mothers of Arab ancestry (78 to 83 percent). The lowest percentages occurred among black, American Indian and mothers of Hispanic ancestry.

Birth Outcome A national goal is to have the percent of infants with low birth weight be no more than 5 percent overall and 9 percent among infants born to black mothers by the year 2000. The low birth weight percentage in Michigan declined from 8.0

percent in 1966 to a low of 6.8 percent in 1985. It increased to 7.5 percent in 1992. The percent for white mothers decreased from 6.6 in 1970 to 5.6 in 1992, while the percent for black mothers rose from 14.3 in 1970 to 14.9 in 1992. Of more concern is the percent of births with extremely low birth weight under 750 grams where about 3/4 of the live births will die within one year, usually in the first day of life. While 0.3 to 0.6 percent of the infants born to white, American Indian, Asian and Pacific Islander mothers and mothers of Arab and Hispanic ancestry had extremely low birth weight in 1992, 1.4 percent of the live births to black mothers had extremely low birth weight.

Tobacco Use A national goal is to reduce tobacco use by pregnant women to less than 10 percent of the births by the year 2000. In 1992 20.6 percent of the pregnant Michigan women used tobacco during their pregnancy.

Tobacco use during pregnancy was highest among American Indian mothers (41.2 percent). Less than 7 percent of the Asian and Pacific Islander mothers and mothers of Arab ancestry smoked. About 13 percent of the mothers of Hispanic ancestry smoked, while 19 and 21 percent of the black and white mothers smoked, respectively.

LIVE BIRTHS

Michigan Trend The smallest number of live births officially recorded in this century was 43,221 in 1901. The actual number of live births was undoubtedly higher. Because of the method of recording, many live births were probably not recorded.

Live births generally increased from 43,699 in 1900 to 208,488 in the peak year of 1957 with major declines occurring during the first years of the Great Depression and the Second World War (Figure 1.1 and Table 1.1). Be-

tween 1957 and 1976, live births decreased by 37.0 percent to 131,378, the lowest total since 1945. Between 1977 and 1988 the number of births fluctuated between a high of 145,162 live births in 1980 and a low of 133,026 in 1983. There was a sharp increase in the number of live births in 1989 and 1990. The number of infants declined in 1992 to 143,827.

United States The national pattern was similar to that observed in Michigan. For 1992, the provisional figure was 4,084,000, a decrease of 0.7 from 1991.

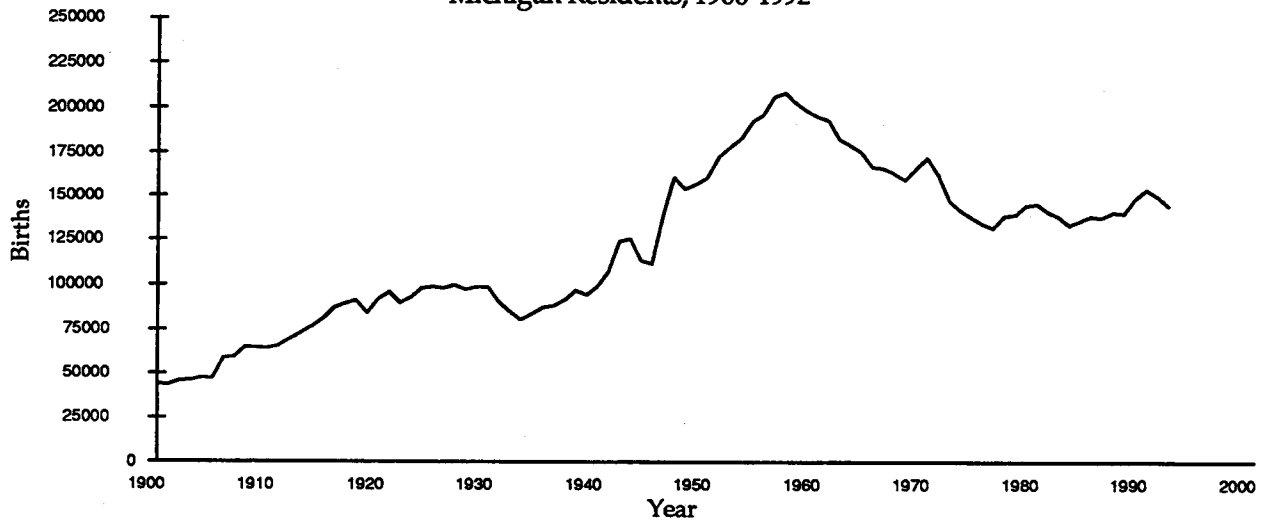
Crude Birth Rates Another view of the historic pattern in live births may be obtained through examination of changes in the crude birth rate. In this century the crude birth rate in Michigan has ranged from a low of 14.4 per 1,000 residents in 1976 to a high of 27.4 in 1956 (Figure 1.2). Between 1976 and 1988, the rate fluctuated between the high of 15.7 in 1980

Table 1.1
Live Births and Crude Birth Rates
Michigan and United States Residents
Selected Years, 1900 - 1992

United States		Year	Michigan	
Number	Rate		Number	Rate
—	—	1900	43,699	18.1
2,618,000	21.3	1930	98,882	20.4
4,257,850	23.7	1960	195,056	24.9
3,731,386	18.4	1970	171,667	19.3
3,612,258	15.9	1980	145,162	15.7
3,629,238	15.8	1981	140,579	15.2
3,680,537	15.9	1982	137,950	15.0
3,638,933	15.5	1983	133,026	14.5
3,669,141	15.5	1984	135,782	15.0
3,760,561	15.8	1985	138,052	15.2
3,756,547	15.6	1986	137,626	15.1
3,809,394	15.7	1987	140,466	15.3
3,909,510	15.9	1988	139,635	15.2
4,040,958	16.4	1989	148,164	16.0
4,158,212	16.7	1990	153,080	16.5
4,110,907	16.3	1991	149,478	16.1
4,084,000Pr.	15.9Pr.	1992	143,827	15.5

Source: Office of the State Registrar and Division for Health Statistics, MDPH

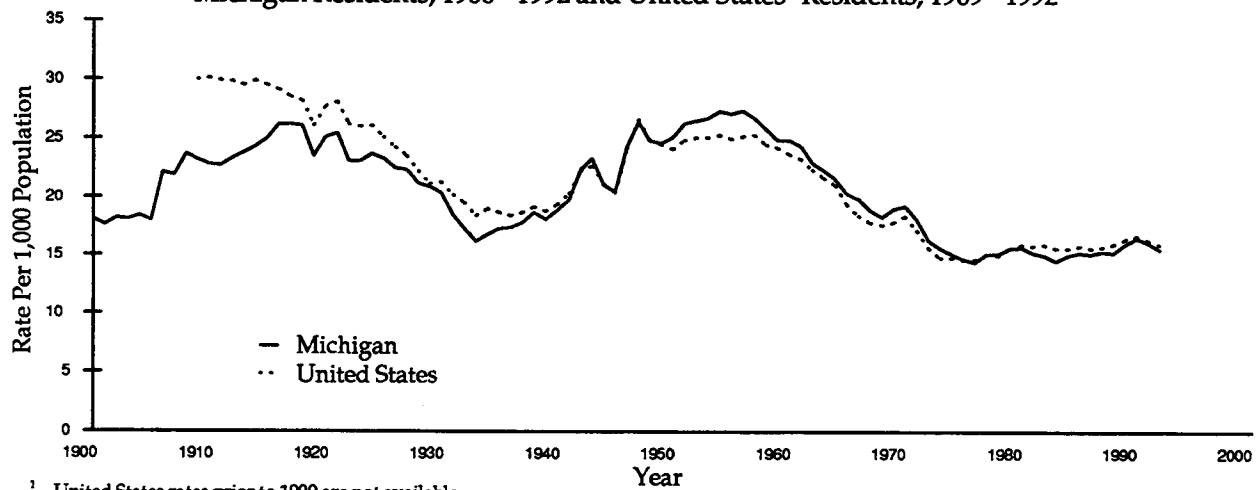
Figure 1.1
Live Births
 Michigan Residents, 1900-1992



Source: Office of the State Registrar and Division for Health Statistics, MDPH

and a low of 14.5 in 1983. In 1989 through 1991 the crude birth rate was above 16 live births per 1,000 residents. In 1992 the rate declined to 15.5.

Figure 1.2
Live Birth Rates
 Michigan Residents, 1900 - 1992 and United States¹ Residents, 1909 - 1992²



¹ United States rates prior to 1909 are not available.

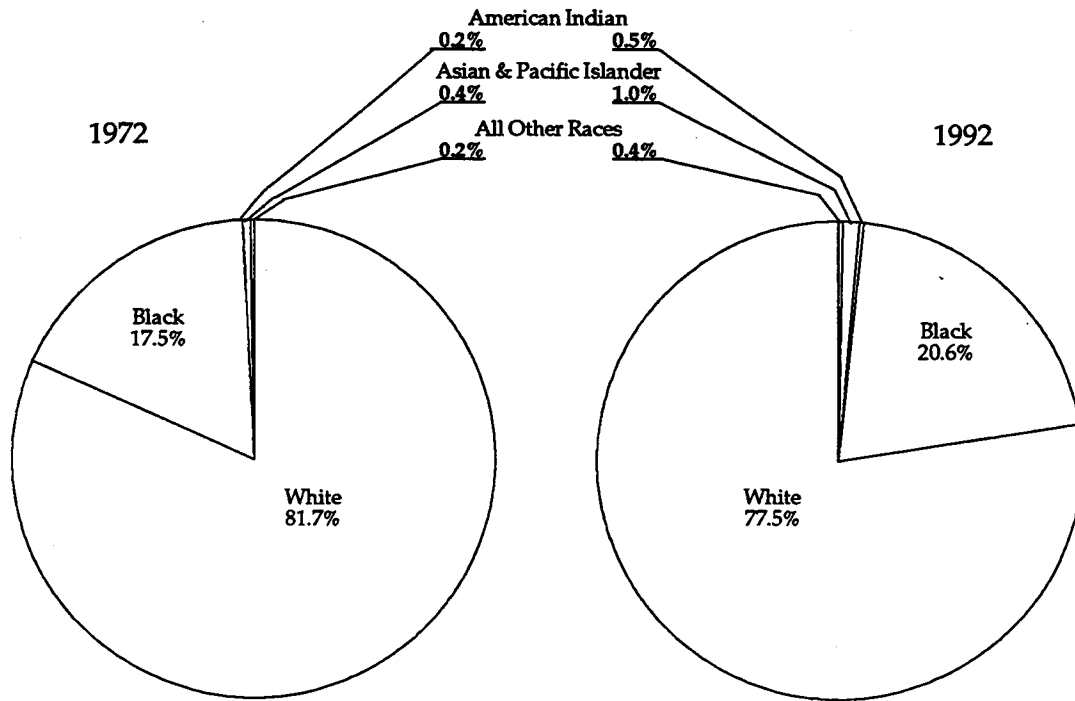
² United States rate for 1992 is provisional.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

AGE, RACE AND ANCESTRY

Racial Composition As part of the changing demographics in Michigan, the racial composition of women having live births in Michigan changed over the period 1972 through 1992 (Figure 1.3). Live births to white women declined from 81.7 percent of all live births in 1972 to 77.5 percent in 1992. The percentages of live births born to mothers of minority race groups increased from 18.3 to 22.5 percent during the twenty year period.

Figure 1.3
Live Births by Mother's Race or National Origin
 Michigan Residents, 1972 and 1992



NOTE: In 1972 Korean race was included in all other races and Asian Indian race was included in white.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Mother's Age In 1992, 39.0 percent of all live births were to women less than 25 years of age (Table 1.2). Only 1.2 percent occurred to women over 39 years of age. The median age of Michigan mothers was 26 years. Black, American Indian and Hispanic mothers were younger (median: 23 or 24 years), while white, Asian and Pacific Islander and Arab mothers were older (median: 27 to 29 years).

Teenage Mothers Differences are reflected in the proportion of teenage births in each race or ancestry group. Although over half of the births to teenage women are to white mothers, only about 1 in 10 births to white mothers were born to a teenage women. Even lower proportions of Asian and Pacific Islander mothers and mothers of Arab ancestry were under age 20, about 1 in 24 and 1 in 17 respectively. About 1 in 4 births to black and American Indian mothers were born to teenage mothers and 1 in 5 births to mothers of Hispanic ancestry.

Table 1.2
Live Births and Percent Distribution by Age, Race and Ancestry of Mother
Michigan Residents, 1992

Age of Mother in Years	Race ¹											Ancestry				
	Total		White		Black		Amer. Indian		Asian & P.I.		Other		Arab		Hispanic	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
< 15	373	0.3	116	0.1	250	0.8	2	0.3	1	0.1	-	-	-	-	25	0.6
15 - 19	18,341	12.8	10,689	9.6	7,379	24.9	173	23.1	56	4.0	5	8.8	137	5.8	855	19.9
20 - 24	37,446	26.0	27,108	24.3	9,743	32.9	280	37.3	233	16.5	7	12.3	562	24.0	1,399	32.6
25 - 29	43,246	30.1	35,995	32.3	6,391	21.6	167	22.3	510	36.0	24	42.1	754	32.1	1,102	25.7
30 - 34	31,496	21.9	26,901	24.1	3,937	13.3	85	11.3	416	29.4	18	31.6	590	25.1	666	15.5
35 - 39	11,199	7.8	9,280	8.3	1,665	5.6	34	4.5	156	11.0	3	5.3	248	10.6	213	5.0
40 +	1,664	1.2	1,324	1.2	279	0.9	8	1.1	42	3.0	-	-	55	2.3	30	0.7
Not Stated	62	0.0	45	0.0	12	0.0	1	0.1	2	0.1	-	-	-	-	3	0.1
Total	143,827	100.0	111,458	100.0	29,656	100.0	750	100.0	1,416	100.0	57	100.0	2,346	100.0	4,293	100.0
Median Age at Last Birthday	26		27		23		23		29		27		28		24	

¹ Live births with race unknown are in the "Total" column only.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

FERTILITY

The fertility rate relates the number of live births to the female population of childbearing age, 15 through 44 years. Similarly, age-specific rates which relate the number of live births to the females in a specific age group provide more detail on the fertility of women in the age group.

Trends A comparison of fertility rates since 1900 for Michigan with those for the United States since 1930 is presented in Table 1.3. The crude birth rate changes discussed above understate the recent decline in fecundity for both regions. The fertility rate for Michigan in 1992 was 47.3 percent below the 1960 rate.

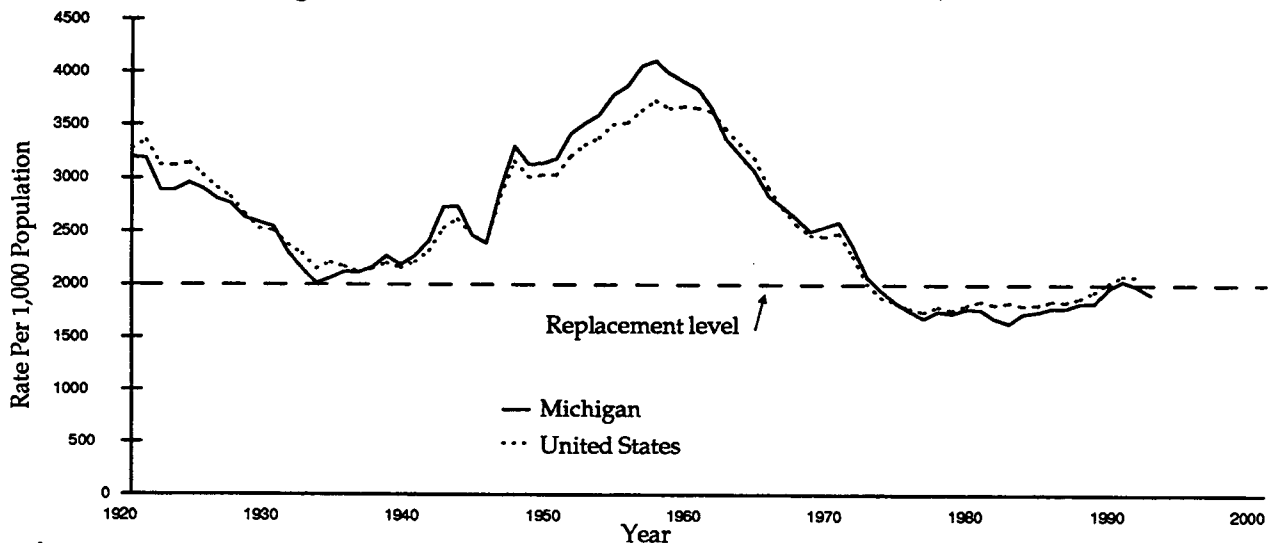
Total Fertility Figure 1.4 displays the changes in the total fertility rate between 1920 and 1992 for Michigan and the United States. (See also Table 4.4) The total fertility rate is a hypothetical measure of the number of live births that would occur to each 1,000 women during their reproductive life, if these women experienced the age-specific birth rates observed in a given year.

Table 1.3
Fertility Rates
Michigan and United States Residents
Selected Years, 1900 - 1992

United States	Year	Michigan
—	1900	78.5
89.2	1930	87.6
118.0	1960	123.1
87.9	1970	91.7
68.4	1980	66.3
67.4	1981	63.2
67.3	1982	61.7
65.8	1983	59.3
65.4	1984	63.1
66.2	1985	63.8
65.4	1986	63.2
65.7	1987	64.3
67.2	1988	63.9
69.2	1989	67.9
70.9	1990	69.1
69.6	1991	67.5
69.3Pr.	1992	64.9

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Figure 1.4
Total Fertility Rates¹
Michigan Residents, 1920 - 1992 and United States Residents, 1920 - 1991



¹ Total fertility rate is total children to 1,000 women in their lifetime assuming constant live birth rates.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Michigan's total fertility rate has generally paralleled that of the nation. The Michigan rate dropped from 3,195.5 in 1920 to 2,006.5 in 1933 and then increased between 1933 and 1957, reaching 4,100.0 in the latter year. Between 1957 and 1992 the total fertility rate in Michigan declined to a low of 1,632.5 in 1982 and increased to 1,910.0 in 1992. The rate was 2,073.0 in 1991 for the United States. The national rates have been higher than the Michigan rates since 1975.

In 1990, for the first time since 1973, Michigan and national total fertility rates were above 2,000. In 1991 and 1992 the Michigan total fertility rate was again below 2,000. A total fertility rate of over 2,000 is necessary for replacement of the parents, since not all women survive the reproductive years nor would all children survive to adulthood. If the total fertility rate falls below 2,000 for a long period, a natural decrease in population will eventually occur. It should be noted that although the total fertility rate has almost

always been below 2,000 since 1973, the rate of natural increase for Michigan remains positive. Over the period 1973 through 1992, there were 1,267,597 persons added to the population of Michigan through the excess of live births over deaths.

Table 1.4 provides a comparison between fertility rates for white and black persons in Michigan for the period since 1970.

The fertility rate for black persons was 40.5 percent above the rate for white persons in 1970, fell sharply to 10.8 percent higher in 1985 and increased to 42.1 percent higher in 1992. Since 1970 the fertility rate for black persons has declined 29.8 percent compared with a 30.6 percent drop for white persons.

The fertility rates for white women declined to its lowest level of 60.7 in 1976, then rose to a high of 65.3 in 1990. Similarly, rates for black women declined to 68.2 in 1983 and then increased to a high of 93.5 in 1990.

Table 1.4
Fertility Rates by Race of Mother
Michigan Residents, Selected Years, 1970 - 1992

Year	Fertility Rate	
	White	Black
1970	87.9	123.5
1975	62.6	89.5
1980	64.2	78.3
1985	62.8	69.6
1990	65.3	93.5
1991	62.9	92.3
1992	61.0	86.7
Percent Change 1970-1992	-30.6	-29.8

Source: Office of the State Registrar and Division for Health Statistics, MDPH

AGE-SPECIFIC LIVE BIRTH RATES

All Women Figure 1.5 displays age-specific live birth rates for the period 1970-1992. Live birth rates in all age groups dropped between 1970 and 1976. For women under 20 years of age the rate continued to decline throughout the years 1976-1983 reaching a low of 38.6 in 1983. The rate increased after 1983 to a high of 60.0 in 1990 then declined to 54.4 in 1992.

After declining between 1970 and 1976, live birth rates for women between 20-24 and 25-29 years of age remained stable until 1980. The rates decreased to low levels in 1983 and increased to relatively high levels in 1990. These rates are decreasing again.

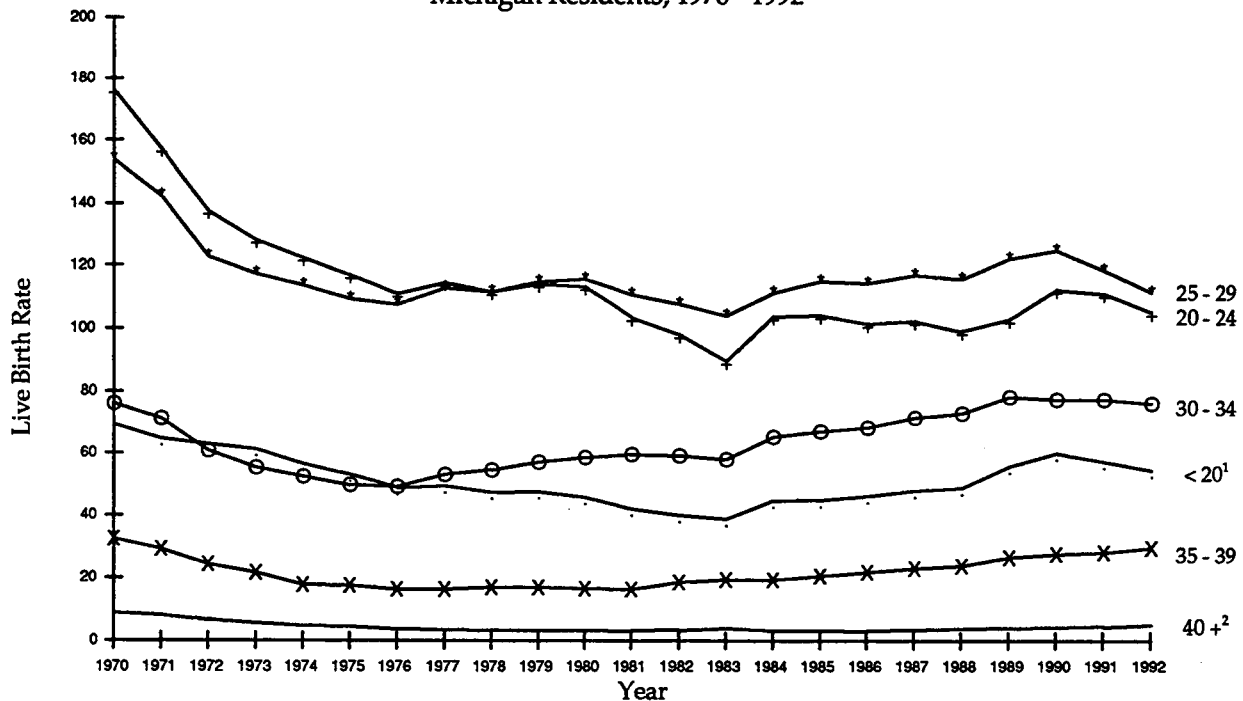
For women in the age groups 30-34 and 35-39 live birth rates decreased between 1970 and 1976, then increased by 55.2 and 81.6 percent, respectively, by 1992.

Black and White Women Figures 1.6 and 1.7 present the trends in age-specific rates for white and black women respectively for the period 1980-1992. Rates for black women under age 25 were above those for white women during these years. The live birth rates for white and black women aged 25 and over were similar.

Between 1980 and 1992 rates for white and black females increased for all age groups, except for white females ages 20 to 29.

Teenagers For women under age 20, birth rates decreased for both race groups through 1983, increased from 1983 through 1989 for black teenagers and from 1983 through 1990 for white teenage women. Then the rates decreased in 1991 and 1992.

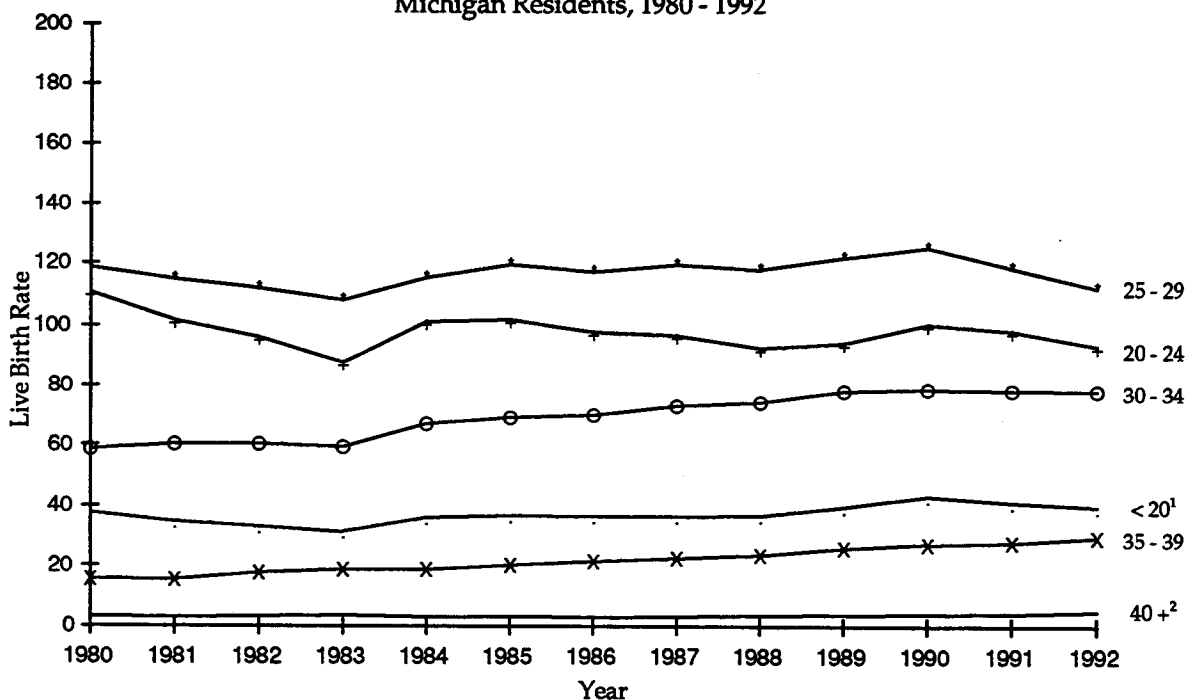
Figure 1.5
Age-Specific Live Birth Rates
Michigan Residents, 1970 - 1992



¹ Based on live births to women under 20 and population of females 15-19.

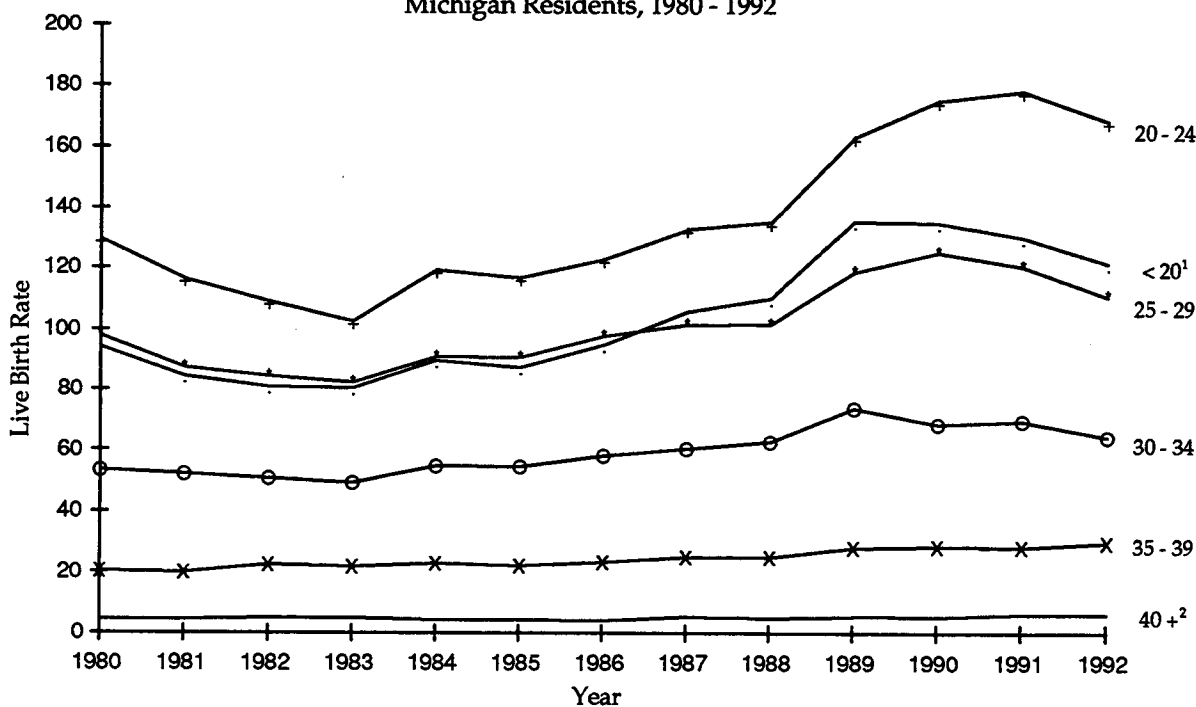
² Based on live births to women 40 and over and population of females 40-44.

Figure 1.6
Age-Specific Live Birth Rates to White Mothers
 Michigan Residents, 1980 - 1992



¹ Based on live births to women under 20 and population of females 15-19.
² Based on live births to women 40 and over and population of females 40-44.
 Source: Office of the State Registrar and Division for Health Statistics, MDPH

Figure 1.7
Age-Specific Live Birth Rates to Black Mothers
 Michigan Residents, 1980 - 1992



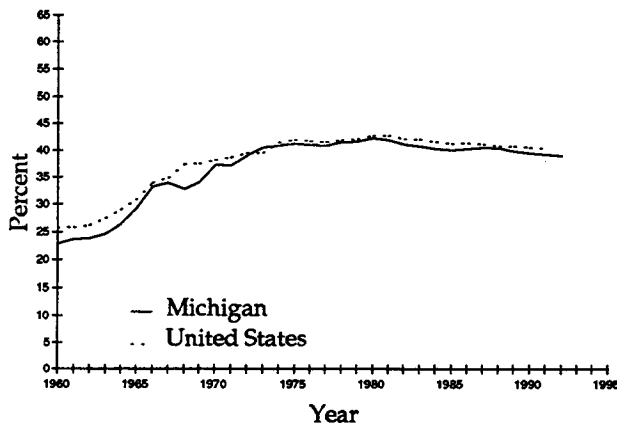
¹ Based on live births to women under 20 and population of females 15-19.
² Based on live births to women 40 and over and population of females 40-44.
 Source: Office of the State Registrar and Division for Health Statistics, MDPH

BIRTH ORDER

The percent of live births which were first-order births is displayed in Figure 1.8 for Michigan and the United States for the period 1960 to 1992. Between 1960 and 1980, the percent of first-order births increased from 22.9 to 42.4 in Michigan. Then the percentage generally decreased to 39.1 in 1992, the lowest proportion since 1972.

Figure 1.8

First Births as a Percentage of All Live Births
Michigan Residents, 1960 - 1992 and
United States Residents, 1960 - 1991



Source: Office of the State Registrar and Division for Health Statistics, MDPH

INTERPREGNANCY TIME PERIOD

In 1992 women having live births whose most recent prior termination was a fetal death had a median time span of 1 year and 10 months between their previous termination and a live birth (Table 1.5). This compares to a median of 2 years 7 months for women having prior live births. A spacing of less than one year was observed for 11.9 percent of all women reporting their most recent prior pregnancy was a fetal death, but only 2.3 percent of all women reporting their most recent prior pregnancy was a live birth.

Table 1.5

Live Births to Women Reporting Prior Pregnancy Terminations¹ by Time Span Between Last and Current Termination and by Whether Prior Termination Resulted in a Live Birth or a Fetal Death²
Michigan Residents, 1992³

Time Span In Years	Total		Prior Fetal Death		Prior Live Birth	
	Number	%	Number	%	Number	%
Total	96,021	100.0	23,549	100.0	72,472	100.0
< 1	4,479	4.7	2,814	11.9	1,665	2.3
1 < 2	31,673	33.0	9,606	40.8	22,067	30.4
2 < 3	23,549	24.5	3,851	16.4	19,698	27.2
3 < 5	19,759	20.6	3,266	13.9	16,493	22.8
5 +	16,561	17.2	4,012	17.0	12,549	17.3
Median Time Span	2yrs., 5mos.		1yrs., 10mos.		2yrs., 7mos.	

¹ Terminations with time spans of zero years (i.e., second or later births in plural deliveries) and terminations with unknown time spans are excluded.

² Fetal death as defined for the pregnancy history on the birth record is a fetal death of any gestational age.

³ The methodology for calculating interpregnancy time span was altered slightly in 1984. Hence, median time spans and percentages are not comparable to statistics published in prior years.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

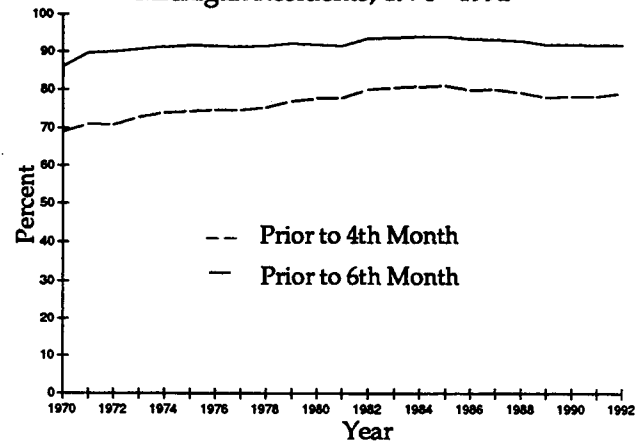
PRENATAL CARE

Trend Pregnant women are encouraged to initiate prenatal care during the first trimester and to receive care on a regular, prescribed basis until delivery occurs. The percentage of women delivering live born infants who initially obtained prenatal care in the first trimester of pregnancy increased steadily between 1970, when the figure was 69.0, and 1985 when it peaked at 81.0 (Figure 1.9). Since then it has fluctuated between 78.0 and 80.0. It was 78.9 percent in 1992.

Race, Ancestry and Age The proportion of live births to women receiving early prenatal care varied considerably by race, ancestry and age of mother (Table 1.6). In 1992, 83.2 percent of infants born to white women were born to mothers who began their prenatal care in the first trimester. Similar percentages of Asian and Pacific Islander mothers and mothers of Arab ancestry initiated care early, 77.7 and 82.9 percent respectively. Lower percentages of black and American Indian mothers and mothers of Hispanic ancestry initiated care early, 63.3 to 67.9 percent.

Over 80 percent of live births to women aged 25 or over were to women who sought care

Figure 1.9
Percent of Women Having Live Births Who Received Care Prior to the 4th Month and 6th Month of Pregnancy
Michigan Residents, 1970 - 1992



Source: Office of the State Registrar and Division for Health Statistics, MDPH

promptly. The proportion fell to 42.4 percent for women under 15 years. About six in ten (59.9 percent) infants born to mothers 15-19 years of age were to mothers who received care early.

Similar patterns in the proportion of mothers initiating care early by age of mother are evident for the race and ancestry groups. However, the proportions were generally highest in each age group for white mothers

Table 1.6
Numbers and Percents¹ of Live Births with Prenatal Care Beginning in the First Trimester by Age, Race and Ancestry of Mother
Michigan Residents, 1992

Age of Mother in Years	Race ²											Ancestry				
	Total		White		Black		Amer. Indian		Asian & P.I.		Other		Arab		Hispanic	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
< 15	158	42.4	61	52.6	95	38.0	1	50.0	-	-	-	-	-	-	8	32.0
15 - 19	10,981	59.9	6,817	63.8	4,020	54.5	101	58.4	28	50.0	2	40.0	102	74.5	468	54.7
20 - 24	27,357	73.1	20,831	76.8	6,133	62.9	187	66.8	164	70.4	6	85.7	449	79.9	919	65.7
25 - 29	36,738	85.0	31,661	88.0	4,414	69.1	123	73.7	398	78.0	20	83.3	638	84.6	813	73.8
30 - 34	27,333	86.8	24,019	89.3	2,782	70.7	65	76.5	356	85.6	17	94.4	497	84.2	518	77.8
35 - 39	9,500	84.8	8,170	88.0	1,143	68.6	24	70.6	124	79.5	2	66.7	212	85.5	168	78.9
40 +	1,335	80.2	1,116	84.3	176	63.1	5	62.5	30	71.4	-	-	46	83.6	20	66.7
Not Stated	45	72.6	36	80.0	7	58.3	1	100.0	-	-	-	-	-	-	2	66.7
Total	113,447	78.9	92,711	83.2	18,770	63.3	507	67.6	1,100	77.7	47	82.5	1,944	82.9	2,916	67.9

¹ Percent denominators obtained from column numbers in Table 1.2

² Live births with race unknown are in the "Total" column only.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

and mothers of Arab ancestry, next highest for Asian and Pacific Islander mothers. Lower proportions of American Indian mothers, mothers of Hispanic ancestry and black mothers initiated care early in each age group.

No Care In 1992, 2,102 resident live births, or 14.6 of every 1,000, occurred with the mother having had no prenatal care (Table 1.7). This figure includes only those where it was specified on the birth record that the mother received no prenatal care. The comparative statistics were 6.3 in 1985 and 22.6 in 1970.

Those who received no prenatal care were for the most part younger mothers (median age of 23). Also, the lack of prenatal care was disproportionately high among black mothers (41.3 per 1,000 live births).

Adequacy of Care A measure of the quality of care has been developed by Dr. D. W.

Kessner which combines information on the month prenatal care began, the gestational age at birth and the number of prenatal visits (see Technical Notes). Adequate prenatal care was obtained by mothers of 73.1 percent of the live births (Table 1.8). The proportions of live births to white mothers and mothers of Arab ancestry who received adequate care (78.1 and 77.4 percent) were higher than the corresponding proportions for black and American Indian mothers (54.8 and 60.7 percent) and mothers of Hispanic ancestry (61.1 percent).

Inadequate care was received by the mothers of 9.2 percent of all live births. The proportions of live births to mothers who received inadequate care were 6.5 percent for white mothers, 8.4 to 13.5 percent for Asian and Pacific Islander mothers, American Indian mothers and mothers of Arab and Hispanic ancestry and 19.2 percent for black mothers.

Table 1.7
Live Births and Birth Ratios with No Prenatal Care by Age and Race of Mother
Michigan Residents, 1992

Age of Mother in Years	Race of Mother									
	Total		White		Black		All Other		Not Stated	
	Number	Ratio ¹	Number	Ratio ¹	Number	Ratio ¹	Number	Ratio ¹	Number	Ratio ¹
< 15	32	85.8	10	86.2	22	88.0	-	-	-	-
15 - 19	520	28.4	191	17.9	322	43.6	4	*	3	*
20 - 24	629	16.8	265	9.8	356	36.5	7	13.5	1	*
25 - 29	459	10.6	191	5.3	261	40.8	5	*	2	*
30 - 34	305	9.7	130	4.8	169	42.9	4	*	2	*
35 - 39	128	11.4	42	4.5	83	49.8	1	*	2	*
40 +	28	16.8	10	7.6	17	60.9	1	*	-	-
Not Stated	1	*	-	-	1	*	-	-	-	-
Total	2,102	14.6	839	7.5	1,231	41.5	22	9.9	10	20.4
Median Age at Last Birthday	23		23		23		25		27	

¹ Ratio denominators obtained from column numbers in Table 1.2.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Although the mothers of 78.9 percent of all live births received prenatal care during the first trimester, only 73.1 percent received adequate care as defined by the Kessner Index. Overall, this means that of the mothers who initiated prenatal care most promptly, 7.3 percent (8,297 women) did not receive the minimum number of visits they should have received (Tables 1.6 and 1.8).

Considered as a proportion of the live births to mothers who did not receive adequate care (38,677 women), 21.5 percent of the live births to mothers not receiving adequate care were to mothers who initiated care within the recommended first trimester, but did not continue to receive the appropriate minimum number of prenatal care visits.

Table 1.8
**Numbers and Percents of Live Births by Level of Prenatal Care, Race and Ancestry of Mother
 Michigan Residents, 1992**

Level of Prenatal Care (Kessner Index ¹)	Race ²												Ancestry			
	Total		White		Black		Amer. Indian		Asian & P.I.		Other		Arab		Hispanic	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Adequate	105,150	73.1	87,103	78.1	16,251	54.8	455	60.7	1,026	72.5	40	70.2	1,816	77.4	2,621	61.1
Intermediate	24,788	17.2	16,676	15.0	7,572	25.5	211	28.1	241	17.0	14	24.6	324	13.8	1,071	24.9
Inadequate	13,301	9.2	7,266	6.5	5,682	19.2	82	10.9	139	9.8	3	5.3	198	8.4	581	13.5
Unknown	588	0.4	413	0.4	151	0.5	2	0.3	10	0.7	-	-	8	0.3	20	0.5
Total	143,827	100.0	111,458	100.0	29,656	100.0	750	100.0	1,416	100.0	57	100.0	2,346	100.0	4,293	100.0

¹ The Kessner Index is a classification of prenatal care based on the month of pregnancy in which prenatal care began, the number of prenatal visits and the length of pregnancy (i.e., for shorter pregnancies, fewer prenatal visits constitute adequate care.)

² Live births with race unknown are in the "Total" column only.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

BIRTH WEIGHT

The mean weight for all live births was 3,342.0 grams or approximately 7 pounds 6 ounces (Table 1.9). The median weight was 3,377 grams or about 7 pounds 7 ounces. The median birth weight was lowest for infants born to black mothers, highest for white and American Indian mothers. The medians were somewhat lower for mothers of Arab and Hispanic ancestry. The median birth weight for infants born to Asian and Pacific Islander mothers was about 200 and 170 grams lower than the medians for infants born to white and

American Indian mothers and 113 grams higher than the median for infants born to black mothers.

Infants born to black mothers had a higher proportion of birth weights with extremely low birth weight below 750 grams (1.4 percent). Other race and ancestry groups had from 0.3 to 0.6 percent of the births below 750 grams. Infants born with this extremely low birth weight have very high mortality rates (over 75 percent mortality).

Table 1.9
Numbers and Percents of Live Births by Birth Weight, Race and Ancestry of Mother
Michigan Residents, 1992

Weight at Birth in Grams	Race ¹												Ancestry			
	Total		White		Black		Amer. Indian		Asian & P.I.		Other		Arab		Hispanic	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
< 750	817	0.6	380	0.3	424	1.4	3	0.4	8	0.6	-	-	10	0.4	15	0.3
750 - 1,499	1,381	1.0	758	0.7	601	2.0	4	0.5	11	0.8	2	3.5	15	0.6	25	0.6
1,500 - 2,499 ²	8,631	6.0	5,103	4.6	3,398	11.5	39	5.2	65	4.6	2	3.5	98	4.2	202	4.7
2,500 +	132,779	92.3	105,057	94.3	25,182	84.9	702	93.6	1,331	94.0	53	93.0	2,218	94.5	4,045	94.2
Not Stated	219	0.2	160	0.1	51	0.2	2	0.3	1	0.1	-	-	5	0.2	6	0.1
Total	143,827	100.0	111,458	100.0	29,656	100.0	750	100.0	1,416	100.0	57	100.0	2,346	100.0	4,293	100.0
Mean Weight	3,342		3,417		3,063		3,421		3,262		3,434		3,338		3,360	
Median Weight	3,377		3,459		3,147		3,430		3,260		3,530		3,345		3,374	

¹ Live births with race unknown are in the "Total" column only.

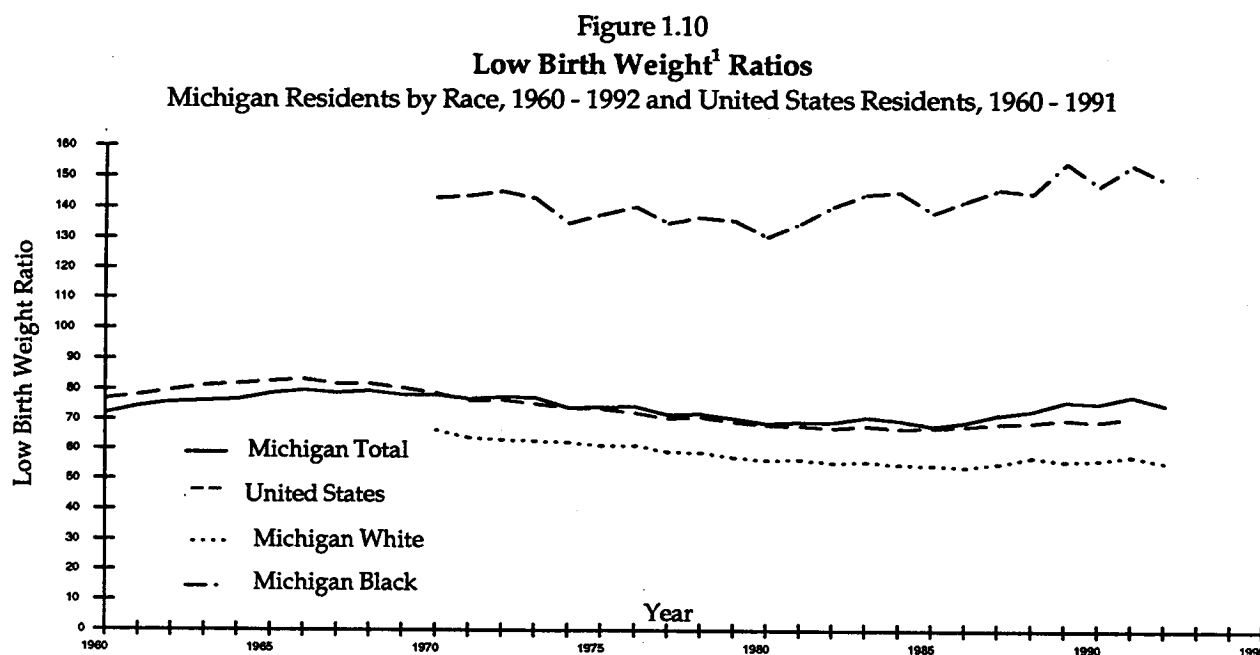
² In order to conform to national standards, the definition of low birthweight was changed in 1984 to less than 2,500 grams.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Low Birth Weight A subgroup of major importance when analyzing historical birth weight trends is the category of infants weighing less than 2,500 grams (approximately 5 pounds 8 ounces or less) at birth. Such infants have historically experienced higher mortality in their first year of life than heavier infants.

births in Michigan had low birth weight. Between 1960 and 1966 the percentage increased, reaching a high for the 33 year period (8.0). The percentage generally declined until 1985 when the percent was 6.8, the lowest rate since 1960. It rose to 7.5 in 1992. The pattern for the United States was similar between 1970 and 1985. By 1991 the low birth weight percentage for the nation had increased to 7.1 percent.

Figure 1.10 displays the percent of low birth weight infants born to Michigan and the United States residents over the last thirty-three years. In 1960 7.2 percent of the live



¹ Prior to 1984, low birth weight was defined as 2,500 grams or less. Starting with year 1984, low birth weight is defined as less than 2,500 grams in order to conform to national standards.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

The low birth weight percentage for infants of black mothers was 14.9 percent compared with 5.2 to 6.1 percent for infants born to mothers of other races and ancestry groups (Table 1.10).

The low birth weight percent varied by adequacy of prenatal care as indicated by the Kessner Index. For the race and ancestry groups, the low birth weight percentages were generally 1.5 and 2.3 times higher for infants born to mothers with inadequate care than to mothers with adequate prenatal care. The ratios were generally 1.2 and 1.6 times higher for infants born to women with intermediate care than for women with adequate care.

At birth, 14.9 percent of the infants born to black women weighed less than 2,500 grams. Of infants born to black women with adequate care, a lower percentage (12.8) weighed less than 2,500 grams. The low weight ratio for infants born to black women with adequate care was higher than the ratio for infants born to women of other race and ancestry groups at any level of prenatal care. The low birth weight ratio was 2.0 to 2.8 times higher for infants born to black women with adequate care than for corresponding women of other race and ancestry groups.

Table 1.10
Low Weight¹ Live Births and Low Birth Weight Percentages²
by Level of Prenatal Care, Race and Ancestry of Mother
Michigan Residents, 1992

Level of Prenatal Care (Kessner Index ³)	Race ⁴												Ancestry			
	Total		White		Black		Amer. Indian		Asian & P.I.		Other		Arab		Hispanic	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Adequate	6,392	6.1	4,218	4.8	2,073	12.8	22	4.8	64	6.2	3	*	91	5.0	119	4.5
Intermediate	2,378	9.6	1,191	7.1	1,154	15.2	16	7.6	11	4.6	1	*	16	4.9	67	6.3
Inadequate	2,004	15.1	806	11.1	1,168	20.6	8	9.8	8	5.8	-	-	15	7.6	54	9.3
Unknown	55	9.4	26	6.3	28	18.5	-	-	1	*	-	-	1	*	2	*
Total	10,829	7.5	6,241	5.6	4,423	14.9	46	6.1	84	5.9	4	*	123	5.2	242	5.6

¹ Less than 2,500 grams.

² Percent denominators obtained from column numbers in Table 1.8.

³ The Kessner Index is a classification of prenatal care based on the month of pregnancy in which prenatal care began, the number of prenatal visits and the length of pregnancy (i.e., for shorter pregnancies, fewer prenatal visits constitute adequate care).

⁴ Live births with race unknown are in the "Total" column only.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

CONGENITAL ANOMALIES

One or more congenital anomalies were reported on the birth certificate for 2,108 of the 143,827 resident live births in 1992 (Table 1.11). This translates to a rate of 146.6 per 10,000 live births.

The method of reporting congenital anomalies on the birth record was altered with the 1989 birth certificate. The 1989 and later congenital anomalies rates obtained in check-box format are not comparable to rates obtained in previous years by writing in blank spaces. Particularly, any increase in the overall congenital anomalies rate or the rate of specific types of anomalies compared to previous years can not automatically be considered an increase in the proportion of congenital anomalies occurring. It is most likely that such an increase is a consequence of the more complete reporting of congenital anomalies.

While the check-box reporting format may help reduce the level of underreporting of congenital anomalies, the frequency of reporting of specific anomalies is affected by the reporting schedule. Many conditions may not be apparent at the time the birth certificate is completed and filed. A more complete reporting of congenital anomalies is provided by the Birth Defects Registry in the Office of the State Registrar and Division for Health Statistics.

The congenital anomaly rate of 160.8 per 10,000 live births to white mothers was 69.6 percent higher than the rate of 94.8 for live births to black mothers and 27.6 percent higher than the rate of 126.0 for live births to mothers of races other than black or white.

The rates for all races combined varied with the age of the mother. The lowest rates were usually experienced by mothers 20 - 24 years of age. Rates rose with mother's age.

Table 1.11
Live Births with Congenital Anomalies Reported and Congenital Anomaly Rates¹
by Age and Race of Mother
 Michigan Residents, 1992

Age of Mother in Years	Race of Mother									
	Total		White		Black		All Other		Unknown	
	Number	Rate ²	Number	Rate ²	Number	Rate ²	Number	Rate ²	Number	Rate ²
< 15	2	*	2	*	-	-	-	-	-	-
15 - 19	240	130.9	165	154.4	72	97.6	1	*	2	*
20 - 24	487	130.1	389	143.5	90	92.4	8	153.8	-	-
25 - 29	639	147.8	567	157.5	61	95.4	8	114.1	3	*
30 - 34	512	162.6	461	171.4	42	106.7	7	134.9	2	*
35 - 39	201	179.5	184	198.3	14	84.1	3	*	-	-
40 +	26	156.3	24	181.3	1	*	1	*	-	-
Not Stated	1	*	-	-	1	*	-	-	-	-
Total	2,108	146.6	1,792	160.8	281	94.8	28	126.0	11	224.5
Median Age at Last Birthday	27		27		23		27		27	

¹ Number of live births with congenital anomalies reported per 10,000 live births.

² Rate denominator obtained from column numbers in Table 1.2.

MEDICAL FACTORS ASSOCIATED WITH DELIVERY AND/OR LABOR

Complications of Pregnancy There were 40,192 deliveries (27.9 percent) reported with one or more complications of labor and/or delivery in 1992 (Table 1.12). Among the most commonly reported complications were meconium, moderate/heavy (8,276 cases); breech/malpresentation of fetus (6,115 cases); fetal distress (6,096 cases); dysfunctional labor (5,153) and premature rupture of membranes (5,093 cases).

The proportions of live births for which there was at least one complication were relatively similar for women of different races and ancestry groups (Table 1.12). The types of complications which were most common were also very similar among mothers of different race and ancestry groups, although the exact ordering by frequency of occurrence varied somewhat.

Table 1.12
**Numbers and Percents of Live Births by Complications of Labor/Delivery,
 Race and Ancestry of Mother
 Michigan Residents, 1992**

Complications of Labor/Delivery	Race ¹												Ancestry			
	Total		White		Black		Amer. Indian		Asian & P.I.		Other		Arab		Hispanic	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Meconium, moderate/heavy	8,276	5.8	5,803	5.2	2,324	7.8	44	5.9	81	5.7	2	3.5	110	4.7	270	6.3
Breech/malpresentation	6,115	4.3	5,132	4.6	872	2.9	40	5.3	50	3.5	3	5.3	82	3.5	170	4.0
Fetal distress	6,096	4.2	4,657	4.2	1,340	4.5	31	4.1	44	3.1	2	3.5	78	3.3	121	2.8
Dysfunctional labor	5,153	3.6	4,304	3.9	717	2.4	34	4.5	59	4.2	4	7.0	78	3.3	172	4.0
Premature rupture of membranes (>12 hours)	5,093	3.5	4,038	3.6	932	3.1	39	5.2	67	4.7	2	3.5	63	2.7	170	4.0
Cephalopelvic disproportion	4,000	2.8	3,540	3.2	391	1.3	24	3.2	30	2.1	-	-	37	1.6	130	3.0
Precipitate labor (<3 hours)	2,982	2.1	2,426	2.2	490	1.7	20	2.7	34	2.4	3	5.3	47	2.0	91	2.1
At least one complication	40,192	27.9	32,007	28.7	7,383	24.9	243	32.4	404	28.5	17	29.8	536	22.8	1,217	28.3
Total Live Births	143,827	100.0	111,458	100.0	29,656	100.0	750	100.0	1,416	100.0	57	100.0	2,346	100.0	4,293	100.0

¹ Live births with race unknown are in the "Total" column only.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Behavioral Risk Factors The mother smoked while pregnant for 20.6 percent (29,654) of the live births in 1992 (Table 1.13). These data are consistent with statewide PRAMS sample survey data. The reported percentage of live births whose mothers smoked while pregnant was highest for American Indian mothers (41.2 percent), was lower and relatively similar for white and black mothers (21.2 and 18.9 percent, respectively). Mothers of Hispanic ancestry were reported to smoke less during pregnancy than white or black mothers (13.1 percent). Asian and Pacific Islander mothers and mothers of Arab ancestry had the lowest percentages of reported smoking during their pregnancy.

Only 3,515 (2.4 percent) of the birth certificates indicated the mother drank alcohol while pregnant.

Based on other studies it is generally believed that reported numbers of mothers who drank while pregnant as obtained from certificates of live birth underreport the frequency of this risk factor.

A weight gain during pregnancy of less than sixteen pounds was reported for mothers of 8.3 percent (11,933) of the live births. The percentage was higher for black mothers.

Table 1.13
Numbers and Percents of Live Births by Maternal Risk Factors, Race and Ancestry of Mother
Michigan Residents, 1992

Maternal Risk Factors	Race ¹											Ancestry				
	Total		White		Black		Amer. Indian		Asian & P.I.		Other		Arab		Hispanic	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Mother smoked while pregnant	29,654	20.6	23,610	21.2	5,613	18.9	309	41.2	60	4.2	7	12.3	158	6.7	563	13.1
Weight gain less than 16 pounds while pregnant	11,933	8.3	7,855	7.0	3,849	13.0	78	10.4	112	7.9	4	7.0	165	7.0	420	9.8
Mother drank alcohol while pregnant	3,515	2.4	2,518	2.3	934	3.1	41	5.5	14	1.0	1	1.8	17	0.7	88	2.0
Total Live Births	143,827	100.0	111,458	100.0	29,656	100.0	750	100.0	1,416	100.0	57	100.0	2,346	100.0	4,293	100.0

¹ Live births with race unknown are in the "Total" column only.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Medical Risk Factors For 20.4 percent (29,347) of the 143,827 resident live births occurring in 1992, the mother had at least one medically relevant risk factor (Table 1.14). The most commonly specified medical risk factor was pregnancy-related hypertension which occurred in mothers of 3.2 percent (4,565) of the live births. The next most common maternal medical risk factors were diabetes and anemia which occurred in mothers of 2.9 percent (4,169) and 1.6 percent (2,346) of the live births. Drug abuse was reported in 1.0 percent of all live births.

The most common maternal medical risk factors varied somewhat among race and ancestry groups. Pregnancy-related hypertension and diabetes were the most common risk factors for white mothers; drug abuse and anemia were the most common for black mothers; and diabetes was most common for American Indian, Asian and Pacific Islander mothers and mother of Arab and Hispanic ancestry.

Table 1.14
Numbers and Percents of Live Births by Medical Risk Factors, Race and Ancestry of Mother
Michigan Residents, 1992

Risk Factors	Race ¹												Ancestry			
	Total		White		Black		Amer. Indian		Asian & P.I.		Other		Arab		Hispanic	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Hypertension, pregnancy-associated	4,565	3.2	3,752	3.4	739	2.5	28	3.7	27	1.9	2	3.5	42	1.8	110	2.6
Diabetes	4,169	2.9	3,529	3.2	522	1.8	29	3.9	62	4.4	4	7.0	66	2.8	138	3.2
Anemia (Hct. 30/Hgb. 10)	2,346	1.6	1,422	1.3	886	3.0	10	1.3	18	1.3	1	1.8	23	1.0	96	2.2
Previous preterm or small-for-gestational age infant	2,081	1.4	1,654	1.5	398	1.3	13	1.7	4	0.3	4	7.0	22	0.9	49	1.1
Rh sensitive	1,652	1.1	1,581	1.4	59	0.2	3	0.4	1	0.1	3	5.3	33	1.4	25	0.6
Previous infant 4000+ grams	1,520	1.1	1,431	1.3	67	0.2	15	2.0	4	0.3	1	1.8	11	0.5	39	0.9
Drug abuse	1,498	1.0	555	0.5	923	3.1	14	1.9	2	0.1	1	1.8	1	0.0	35	0.8
At least one medical risk ²	29,347	20.4	22,529	20.2	6,301	21.2	169	22.5	240	16.9	20	35.1	329	14.0	798	18.6
Total Live Births	143,827	100.0	111,458	100.0	29,656	100.0	750	100.0	1,416	100.0	57	100.0	2,346	100.0	4,293	100.0

¹ Live births with race unknown are in the "Total" column only.

² Does not equal the sum of risk factors specified because mothers may have multiple risk factors.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Method of Delivery Vaginal delivery was the most common method of delivery in 1992, accounting for 77.9 percent of the live births (Table 1.15). A national goal is to have a vaginal delivery for at least 35 percent of the mothers with a previous C-section by the year 2000. In 1992 about 23.5 percent of the mothers with a previous C-section had a vaginal delivery.

Primary C-sections were performed in 13.1 percent of the live births and repeat C-sections were performed in 8.2 percent of the live births. Lowering C-section rates to no more

than 15 per 100 deliveries including no more than 12 primary C-sections is a national goal for the year 2000.

Black mothers and mothers of Arab and Hispanic ancestry had lower proportions of live births delivered by primary C-section. These groups either have achieved or are close to achieving the national goal for primary C-sections. White, American Indian and Asian and Pacific Islander mothers had somewhat higher proportions of live births delivered by primary C-section.

Table 1.15
Numbers and Percents of Live Births by Method of Delivery, Race and Ancestry of Mother
Michigan Residents, 1992

Risk Factors	Race ¹												Ancestry				
	Total		White		Black		Amer. Indian		Asian & P.I.		Other		Arab		Hispanic		
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	
Procedures																	
Vacuum	4,061	2.8	3,502	3.1	483	1.6	16	2.1	40	2.8	6	10.5	49	2.1	131	3.1	
Forceps	3,881	2.7	3,346	3.0	438	1.5	10	1.3	53	3.7	4	7.0	61	2.6	106	2.5	
Method																	
Vaginal	108,416	75.4	82,937	74.4	23,380	78.8	571	76.1	1,115	78.7	44	77.2	1,858	79.2	3,248	75.7	
Primary C-section	18,845	13.1	14,848	13.3	3,646	12.3	100	13.3	189	13.3	4	7.0	241	10.3	509	11.9	
Repeat C-section	11,760	8.2	9,663	8.7	1,927	6.5	57	7.6	72	5.1	5	8.8	163	6.9	396	9.2	
Vaginal birth after previous C-section	3,612	2.5	2,969	2.7	585	2.0	17	2.3	33	2.3	2	3.5	47	2.0	110	2.6	
Unknown	1,198	0.8	1,045	0.9	118	0.4	5	0.7	7	0.5	2	3.5	37	1.6	30	0.7	
Total Live Births	143,827	100.0	111,458	100.0	29,656	100.0	750	100.0	1,416	100.0	57	100.0	2,346	100.0	4,293	100.0	

¹ Live births with race unknown are in the "Total" column only.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Abnormal Conditions at Birth In 1992, 11,665 babies were born with at least one recorded abnormal condition at birth for 8.1 percent of the live births (Table 1.16). The highest rate for a specified abnormal condition was associated with live born infants who received assisted ventilation for less than 30 minutes (1.7 percent). The next two most frequent abnormal conditions were a five

minute Apgar under 7 and hyaline membrane disease/RDS (Respiratory Distress Syndrome), respectively.

A low Apgar score at five minutes occurred for about 2.7 percent of the infants born to black mothers.

Table 1.16
Numbers and Percents of Live Births With Abnormal Conditions by Race
and Ancestry of Mother
Michigan Residents, 1992

Abnormal Conditions	Race ¹												Ancestry			
	Total		White		Black		Amer. Indian		Asian & P.I.		Other		Arab		Hispanic	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Assisted ventilation <30 minutes	2,419	1.7	1,919	1.7	456	1.5	12	1.6	21	1.5	-	-	36	1.5	80	1.9
5 minute Apgar <7	2,258	1.6	1,416	1.3	800	2.7	12	1.6	23	1.6	2	*	21	0.9	50	1.2
Hyaline membrane disease/ RDS	1,689	1.2	1,216	1.1	444	1.5	5	*	9	0.6	3	*	34	1.4	40	0.9
Assisted ventilation >30 minutes	1,196	0.8	849	0.8	336	1.1	2	*	8	0.6	-	-	7	0.3	30	0.7
Meconium aspiration syndrome	582	0.4	318	0.3	254	0.9	2	*	5	*	-	-	9	0.4	25	0.6
At least one condition	11,665	8.1	8,989	8.1	2,472	8.3	49	6.5	85	6.0	11	19.3	191	8.1	339	7.9
Total Live Births	143,827		111,458		29,656		750		1,416		57		2,346		4,293	

¹ Live births with race unknown are in the "Total" column only.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

PLACE OF OCCURRENCE

Of some confusion to persons not familiar with vital records data is the difference between occurrence and residence figures. Information on events to residents of Michigan that occur throughout the country and, in some instances, outside United States boundaries, is collected in order to obtain the full scope of activity for the state population.

Resident Births In 1992 1,713 Michigan resident live births occurred outside the state. Information on these events was forwarded to the state of Michigan for statistical purposes only. While only 1.2 percent of the total for the state was involved, statistics for the counties on Michigan's southern and northwestern borders would be strongly affected were this information not available.

Table 1.17 shows that births in the four border states and Canada comprise 90.7 percent of all resident live births that occurred out of state. Live births to Michigan residents occurred in 43 of the 50 states and in Canada in 1992.

Non-resident Births The number of nonresident live births that occurred in Michigan in 1992 was 454. Information about those events was shared with the appropriate states by the State of Michigan under specific confidentiality guidelines so they might have a complete statistical file on their residents. Infants born in Michigan to mothers from the four border states and Canada comprised 72.0 percent of these events, as shown in Table 1.17. There were live births in Michigan to residents of 28 states, Puerto Rico, the Virgin Islands and at least 4 foreign countries.

Table 1.17
Michigan Live Births
 Occurring Outside Michigan to Michigan
 Residents by Place of Occurrence,
 and Occurring in Michigan to Non-Michigan
 Residents by Place of Residence, 1992

Geographic Area	Live Births To Residents To Residents Occurring Outside Michigan		Live Births To Non-residents Occurring in Michigan	
	Number	Percent	Number	Percent
Total	1,713	100.0	454	100.0
Ohio	967	56.5	45	9.9
Indiana	314	18.3	68	15.0
Wisconsin	256	14.9	175	38.5
Pennsylvania	17	1.0	-	-
Minnesota	14	0.8	4	0.9
Florida	13	0.8	16	3.5
Illinois	13	0.8	21	4.6
Texas	13	0.8	22	4.8
Other States	103	6.0	69	15.2
U.S. Territories	-	-	3	0.7
Canada	3	0.2	18	4.0
Other Countries	-	-	8	1.8
Unknown	-	-	5	1.1

Source: Office of the State Registrar and Division for Health Statistics, MDPH

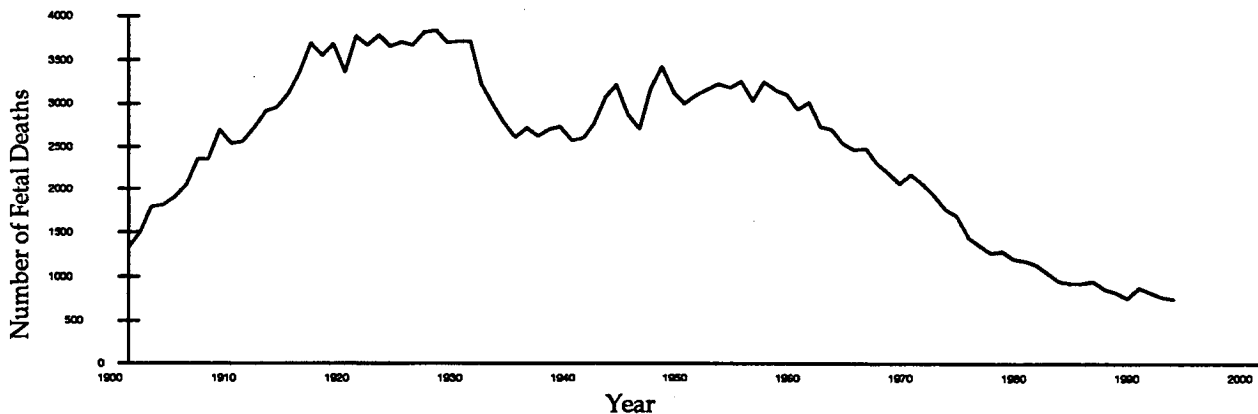
FETAL DEATHS

There were 1,325 fetal deaths reported in Michigan in 1900. The number of reported fetal deaths increased from 1900 through 1927, the peak year in this century, with 3,834 fetal deaths. The reported number of fetal deaths generally decreased in the 1930's, increased in the 1940's and decreased after 1950 (Figure 1.11 and Table 1.18).

The fetal death ratio for Michigan has declined through most of the twentieth century (Figure 1.12 and Table 4.2). The ratio rose from 30.3 in 1900 to its peak of 43.5 fetal deaths per 1,000 live births in 1905. In 1922, Michigan's fetal death ratio was 42.0, marking a turning point, as fetal death ratios have generally declined since that year. The ratios in 1991 and 1992 were 5.2.

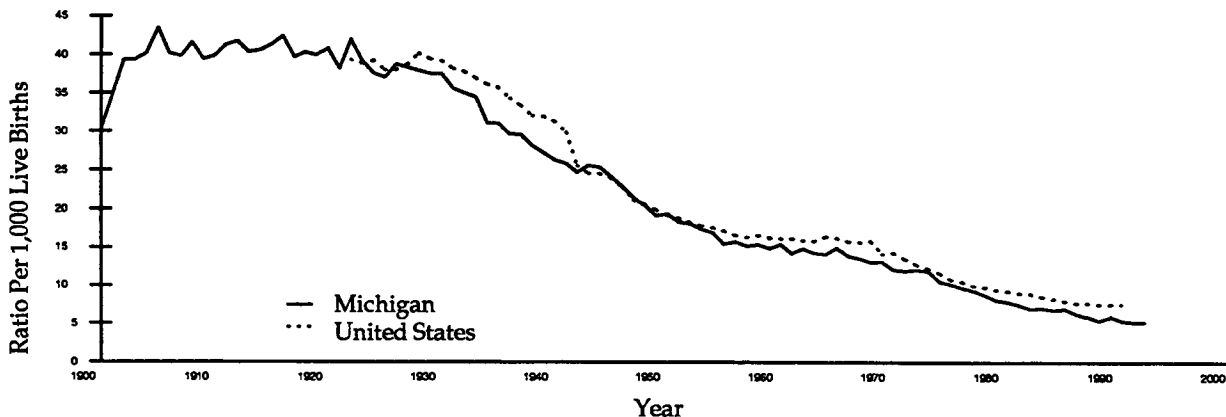
In 1992 the number of resident fetal deaths was 755, the lowest number in the century.

Figure 1.11
Fetal Deaths
Michigan Residents, 1900 - 1992



Source: Office of the State Registrar and Division for Health Statistics, MDPH

Figure 1.12
Fetal Death Ratios
Michigan Residents, 1900 - 1992 and United States¹ Residents, 1922 - 1990



¹ United States ratios prior to 1933 are for registration areas only. United States ratios are based on three different definitions of fetal death:
 1) Prior to 1942 - all reported fetal deaths regardless of period of gestation
 2) 1942 to 1968 - fetal deaths with gestation age 20 weeks or more or not stated
 3) 1969 to current - fetal deaths of stated or presumed period of gestation of 20 or more weeks
 Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 1.18
Fetal Deaths and Fetal Death Ratios
Michigan and United States Residents
Selected Years, 1900-1992

United States		Year	Michigan	
Fetal Deaths	Fetal Death Ratios		Fetal Deaths	Fetal Death Ratios
—	—	1900	1,325	30.3
86,466	39.2	1930	3,714	37.6
68,480	16.1	1960	3,008	15.4
52,961	14.2	1970	2,060	12.0
33,796	10.7	1975	1,356	10.1
33,353	9.2	1980	1,135	7.8
32,596	9.0	1981	1,040	7.4
32,694	8.9	1982	954	6.9
30,752	8.5	1983	933	7.0
30,099	8.2	1984	929	6.8
29,661	7.9	1985	953	6.9
28,972	7.7	1986	865	6.3
29,349	7.7	1987	824	5.9
29,442	7.5	1988	761	5.4
30,469	7.5	1989	881	5.9
31,386	7.5	1990	830	5.4
N.A.	N.A.	1991	775	5.2
N.A.	N.A.	1992	755	5.2

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Michigan's fetal death ratios have been below the national ratios 60 of the 69 years for which national data are available. The last time the United States ratio was below the Michigan ratio was in 1950. In 1990, the Michigan ratio of 5.4 was 28.0 percent below the national ratio of 7.5. It should be noted that since 1978 fetal deaths in Michigan are

comprised of infants born dead who had passed through 20 weeks gestation or weighed 400 grams or more. This definition is different from that of most states. This difference should result in Michigan having slightly higher fetal death rates than would be observed if Michigan had adopted the definition used in most states.

CAUSES OF FETAL DEATH

A classification of fetal deaths by underlying cause of death is contained in Table 1.19. In 1992, 242 of the total 755 deaths were assigned to the category of "other and ill-defined conditions originating in the perinatal period". Nearly half (44.6 percent) of the remaining fetal deaths for which a specific cause was stated were attributed to complications of placenta, cord, and membranes (ICD 762). This is a group of maternal conditions which includes placenta previa, premature separation of the placenta, placental hemorrhage, and compression of the umbilical cord.

Second in frequency was the category maternal complications of pregnancy (ICD 761), which was listed as the cause of 107 fetal deaths. This includes such complications as premature rupture of membranes, multiple pregnancy, and incompetent cervix.

Table 1.19
Fetal Deaths and Fetal Death Ratios by Underlying Cause of Death
Michigan Residents, 1992

ICD. No. ¹	Cause of Death	Frequency	Ratio ²
779	Other and ill-defined conditions originating in the perinatal period	242	168.3
762	Fetus or newborn affected by complications of placenta, cord and membranes	229	159.2
761	Fetus or newborn affected by maternal complications of pregnancy	107	74.4
760	Fetus or newborn affected by maternal conditions which may be unrelated to present pregnancy	36	25.0
740-759	All congenital anomalies combined	78	54.2
	All other causes	63	43.8
740-779	All Causes	755	524.9

¹ Ninth Revision of the International Classification of Diseases. WHO.

² Ratios per 100,000 resident live births.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

AGE, RACE AND ANCESTRY

The overall fetal death rate per 1,000 total births (live births plus fetal deaths) was 5.2 in 1992. In Table 1.20, information is presented by the race of the mother for fetal deaths and live births. It appears that mothers under age 20 and over age 39 plus black, American Indian and Asian and Pacific Islander mothers

have a greater risk of delivering a stillborn fetus.

Mothers of Hispanic and Arab ancestry had lower fetal death rates than the state overall rate.

Table 1.20
Fetal Deaths, Total Births and Fetal Death Rates by Age, Race and Ancestry of Mother Michigan Residents, 1992

Age and Race of Mother	Fetal Deaths	Total Births	Rate Per 1,000 Total Births
Age			
< 15 Years	1	374	*
15 - 19 Years	109	18,450	5.9
20 - 24 Years	186	37,632	4.9
25 - 29 Years	186	43,432	4.3
30 - 39 Years	222	42,917	5.2
40 +	15	1,679	8.9
Not Stated	36	98	367.3
Race			
White	548	112,006	4.9
Black	173	29,829	5.8
American Indian	8	758	10.6
Asian & P. I.	10	1,426	7.0
All Other Races	-	57	-
Not Stated	16	506	31.6
Ancestry			
Arab	11	2,357	4.7
Hispanic	16	4,309	3.7
Total	755	144,582	5.2

Source: Office of the State Registrar and Division for Health Statistics, MDPH

MEDICAL AND OTHER RISK FACTORS FOR FETAL DEATHS

In 1992, 325 fetal deaths, or 43.0 percent of all fetal deaths, occurred to women who were reported to have at least one medical or other birth-related risk factor (Table 1.21). Besides the Other category of risk factors which was reported for 331 fetal deaths, the most frequent risk factor mentioned was tobacco use during pregnancy which was reported in 25.3 percent (191) of all fetal deaths. The next most common risk factor associated with fetal

deaths was alcohol use during pregnancy (43 fetal deaths).

The highest fetal death rate associated with risk factors occurred among women giving birth with reported hydramnios or oligohydramnios (43.6). The next highest fetal death rate occurred to women with reported uterine bleeding (25.1). Relatively low fetal death rates were noted for women using tobacco during pregnancy.

Table 1.21
Numbers and Percents of Fetal Deaths, and Fetal Death Rates
by Medical and Other Risk Factors
 Michigan Residents, 1992

Risk Factors of Mother	Number of Fetal Deaths	Percent of Fetal Deaths	Fetal Death Rate
Tobacco use during pregnancy	191	25.3	6.4
Alcohol use during pregnancy	43	5.7	12.2
Anemia(Hct.<30/Hgb.<10)	35	4.6	14.9
Hydramnios or Oligohydramnios	62	8.2	43.6
Uterine Bleeding	33	4.4	25.1
All other risk factors	331	43.8	11.2
At least one risk factor	325	43.0	11.1

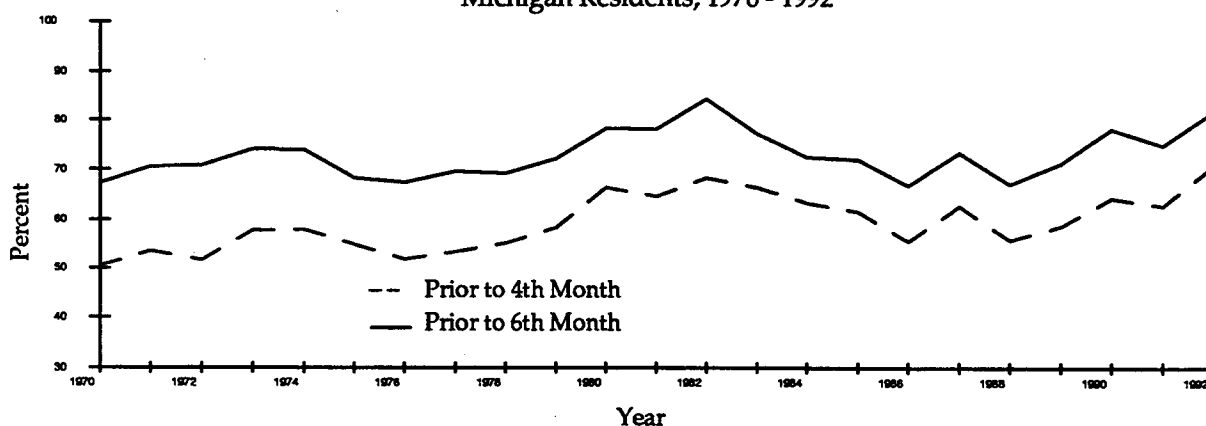
Source: Office of the State Registrar and Division for Health Statistics, MDPH

PRENATAL CARE

The proportion of all fetal deaths in 1992 that were to women who reported receiving care prior to the fourth month of pregnancy was 70.6 with 81.5 percent receiving care prior to the sixth month (Figure 1.13). The percentage of fetal deaths in which the mother received care prior to the fourth and sixth month generally increased until 1982 (Figure 1.13) and declined between 1983 and 1986 to the lowest level in the decade. By 1992 the percentages increased to the highest or second highest percentages since 1970.

The relationship between the fetal death rates and the Kessner Index of adequacy of care is displayed in Table 1.22. The fetal death rate increased as the quality of prenatal care measured by the Kessner Index decreased. The rate was 3.4 per 1,000 total births (fetal deaths and live births) born to women receiving adequate prenatal care. The rate increased to 6.8 and 10.3 for births to women receiving intermediate and inadequate levels of care respectively.

Figure 1.13
Percent of Women Having Fetal Deaths who Received Care Prior to the 4th Month and the 6th Month of Pregnancy
Michigan Residents, 1970 - 1992



Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 1.22
Fetal Deaths, Total Births and Fetal Death Rates by Level of Prenatal Care and Race¹ of Mother
Michigan Residents, 1992

Level of Care (Kessner Index ²)	Race of Mother											
	All Races			White			Black			All Other		
	Fetal Deaths	Total Births	Fetal Death Rates	Fetal Deaths	Total Births	Fetal Death Rates	Fetal Deaths	Total Births	Fetal Death Rates	Fetal Deaths	Total Births	Fetal Death Rates
Adequate	363	105,513	3.4	296	87,399	3.4	51	16,302	3.1	8	1,529	5.2
Intermediate	169	24,957	6.8	120	16,796	7.1	42	7,614	5.5	5	471	*
Inadequate	139	13,440	10.3	82	7,348	11.2	52	5,734	9.1	3	227	*
Unknown	84	672	125.0	50	463	108.0	28	179	156.4	2	14	*
Total	755	144,582	5.2	548	111,006	4.9	173	29,829	5.8	18	2,241	8.0

¹ Race not stated included in total columns only.

² The Kessner Index is a classification of prenatal care based on the month of pregnancy prenatal care began, the number of prenatal visits, and the length of pregnancy (i.e., for shorter pregnancies, fewer prenatal visits constitute adequate care).

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Although the overall fetal death rate is higher for black mothers than white mothers, the fetal death rate was lower for black mothers than for white mothers for each level of care. Since the Kessner Index reduces the minimum number of prenatal visits required to meet the definition of adequate care when gestational age at birth is less than 36 weeks, the percentage of fetal deaths for women with adequate prenatal care should not be affected by the shorter gestational age experienced by many fetal deaths.

FETAL WEIGHT

Among live births, the percentage of infants weighing less than 2,500 grams at birth was 7.5 percent. The comparable percent among fetal deaths was 77.9 (Table 1.23). The percentage of live born infants weighing less than 750 grams was 0.6 percent, while 44.8 percent of the fetal deaths weighed less than 750 grams.

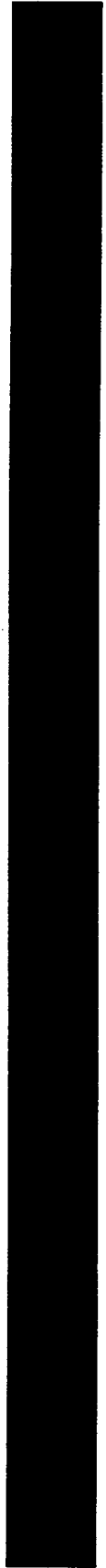
Table 1.23
Fetal Deaths by Fetal Weight
Michigan Residents, 1992

Weight in Grams	Fetal Deaths	Cum. Percent
< 750	338	44.8
750 - 1,499	114	59.9
1,500 - 2,499	136	77.9
2,500 +	155	98.4
Unknown	12	100.0
Total	755	100.0

Source: Office of the State Registrar and Division for Health Statistics, MDPH

MORTALITY

SECTION II



MORTALITY

OVERVIEW

In 1992 there were 78,916 deaths recorded for Michigan residents, 822 less than in the previous year. The crude death rate per 1,000 population was 8.5, 1.2 percent lower than the rate of 8.6 observed in 1991 (Table 2.1). The age-adjusted death rate, decreased in 1992, being 1.6 percent less than the age-adjusted rate for 1991. This latter rate, the age-adjusted rate, serves as a better measure of mortality than a crude death rate as age-adjusted death rates control for most of the differences or variations in the age composition of the populations.

There were 1,460 infant deaths in 1992, 94 fewer than in 1991. The 1992 infant death rate of 10.2 was 1.9 percent lower than the 1991 rate of 10.4, while the neonatal death rate remained the same at 6.7 deaths per 1,000.

An Overview, 1992

Resident Deaths	78,916
Crude Death Rate	8.5
Infant Deaths	1,460
Infant Death Rate	10.2
Neonatal Deaths	962
Neonatal Death Rate	6.7
Perinatal Deaths	1,576
Perinatal Death Rate	10.9
Maternal Deaths	15
Maternal Death Rate	10.4
Deaths from Heart Disease per Day	73.4
Deaths from Cancer per Day	52.5
Deaths from Stroke per Day	13.9
Deaths from C.O.P.D. per Day	7.8
Median Age at Death	74
Median Age at Death for Males	71
Median Age at Death for Females	78

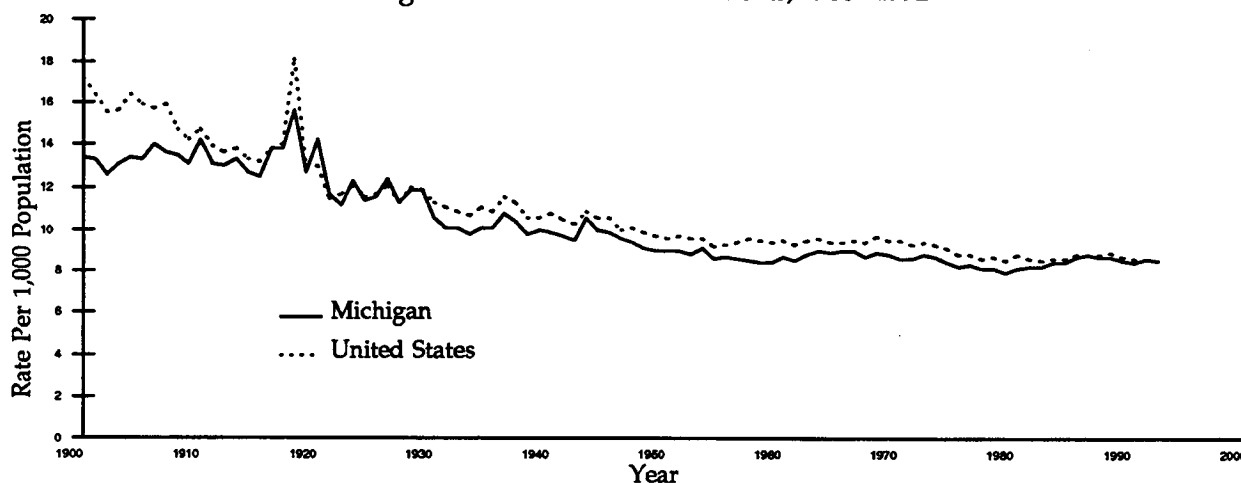
Source: Office of the State Registrar and Division for Health Statistics, MDPH

TRENDS IN MICHIGAN

Between 1900 and 1992 the number of deaths occurring to Michigan residents increased from 32,453 to 78,916. The 31,472 deaths recorded in 1902 was the lowest number of resident deaths in this century, while the number of resident deaths recorded in 1986 (80,177) was the greatest number of resident deaths for the century (Table 4.1).

Although the total number of deaths increased between 1900 and 1992, the increase is due to an increasing population. The crude death rate decreased from 13.4 (per 1,000 population) in 1900 to 8.5 in 1992. The 1979 death rate of 7.9 was the lowest crude death rate ever recorded for Michigan. The highest death rate (15.6) was observed in 1918 (Figure 2.1).

Figure 2.1
Crude Death Rates¹
 Michigan and United States² Residents, 1900 - 1992



¹ 1990 Census population is being used to calculate 1990-1992 rates.

² United States rates for 1971-1979 have been revised using population estimates based on the 1980 Census enumeration. United States rate for 1992 is provisional.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

MICHIGAN AND UNITED STATES MORTALITY

A comparison of the number of deaths and crude death rates for Michigan and the United States for the period 1970 - 1992 is presented in Table 2.1. Between 1970 and 1984, the Michigan rates were below the United States rates. Since 1985 Michigan and United States rates have been equal or close. The Michigan rates decreased slightly between 1970 and 1992, while national rates decreased 10.5 percent in the same time period

Between 1970 and 1992 the numbers of Michigan and United States resident deaths increased, but the crude death rates decreased because the populations in these areas increased.

Table 2.1
Number of Deaths and Crude Death Rates¹
Michigan and United States Residents, 1970 - 1992

United States		Year	Michigan	
Number	Rate		Number	Rate
1,921,031	9.5	1970	76,321	8.6
1,927,542	9.3	1971	77,395	8.6
1,963,944	9.4	1972	79,210	8.8
1,973,003	9.3	1973	78,522	8.7
1,934,388	9.1	1974	76,143	8.4
1,892,879	8.8	1975	74,522	8.2
1,909,440	8.8	1976	75,801	8.3
1,899,597	8.6	1977	74,144	8.1
1,927,788	8.7	1978	74,773	8.1
1,913,841	8.5	1979	73,480	7.9
1,989,841	8.8	1980	74,991	8.1
1,977,981	8.6	1981	75,818	8.2
1,974,797	8.5	1982	75,536	8.2
2,019,201	8.6	1983	76,639	8.4
2,039,369	8.6	1984	76,401	8.4
2,086,440	8.7	1985	78,635	8.7
2,105,361	8.7	1986	80,177	8.8
2,123,323	8.7	1987	79,795	8.7
2,167,999	8.8	1988	80,075	8.7
2,150,466	8.7	1989	78,566	8.5
2,148,463	8.6	1990	78,501	8.4
2,169,518	8.6	1991	79,738	8.6
2,177,000 ¹	8.5Pr.	1992	78,916	8.5

¹ 1990 Census population is used to calculate 1990-1992 rates.

Source: Office of the State Registrar and Division for Health Statistics,
MDPH

MORTALITY DIFFERENCES BY SEX AND RACE

Over the period 1970-1992 the age-adjusted death rates for Michigan males and females were usually slightly higher than the national rates. During the last ten years Michigan female rates were 2.1 to 6.6 percent higher than the national rates, while Michigan male rates fluctuated from 2.0 percent lower to 4.1 percent higher than the national rates (Figure 2.2).

The national and Michigan age-adjusted death rates displayed in Figure 2.3 were similar for white males, while the Michigan white female rates were from 0.3 to 4.6 percent higher than the national white female rates.

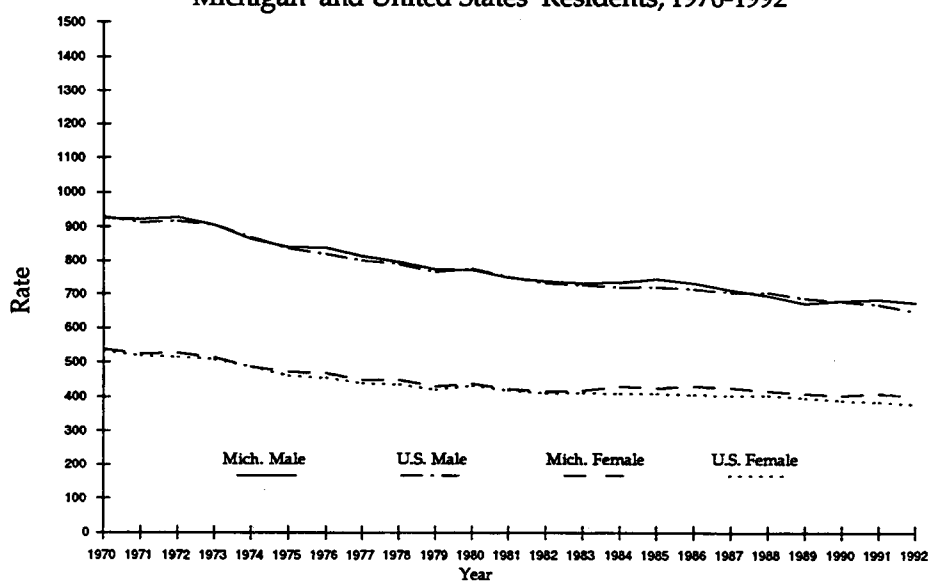
Michigan age-adjusted death rates for black males and females were similar to national rates before 1981 (Figure 2.4). After 1980 the Michigan black male rates were 0.6 to 9.0 percent higher and Michigan black female

rates were 0.6 to 11.0 percent higher than rates for their national counterparts.

Health status disparities between the black and white population increased during the last twenty-three years. Michigan age-adjusted rates for black males and females were 43.3 and 54.2 percent higher than their white counterparts in 1970. By 1992 black male and female rates were 70.0 and 63.4 percent higher than rates for their white counterparts.

Steady declines have generally occurred since 1970 both in Michigan and the United States in age-adjusted death rates in each race-sex group. For Michigan black persons, male and female age-adjusted rates declined 16.8 and 22.7 percent, respectively. The United States rates for these groups declined by 25.8 and 31.1 percent, respectively, during this period. The Michigan rates for white males and females declined 29.9 and 27.1 percent, while national rates dropped slightly more (30.8 and 28.0 percent).

Figure 2.2
Total Age-Adjusted Death Rates¹ by Sex
Michigan² and United States³ Residents, 1970-1992

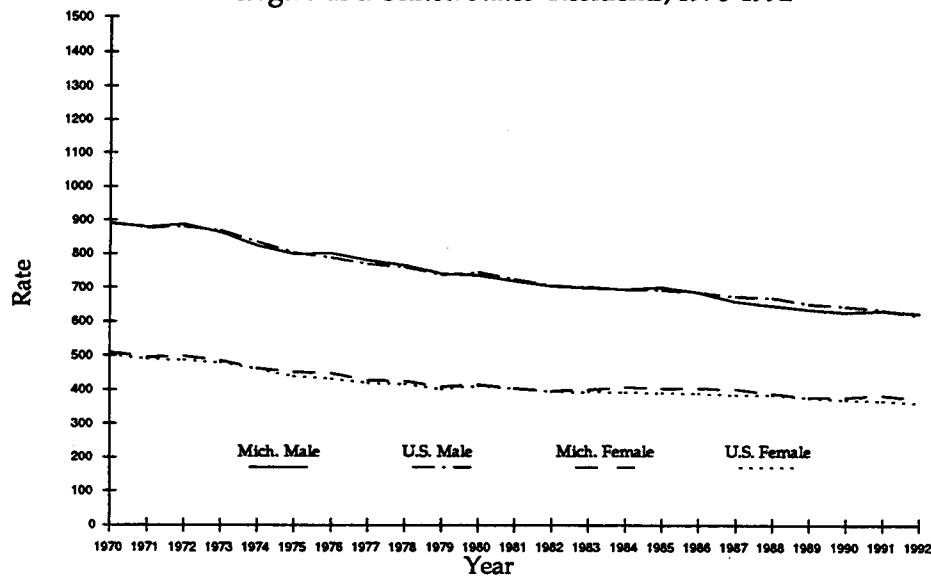


¹ 1990 Census population is used to calculate 1990-1992 rates. Based on age-specific death rates per 100,000 population in specified group. Computed by the direct method, using as the standard population the age distribution of the total population of the United States as enumerated in 1940; see Technical Notes.

² Michigan rates for 1981-1985 have been revised based upon revisions to population estimates; see Technical Notes.

³ United States data for 1992 is provisional.

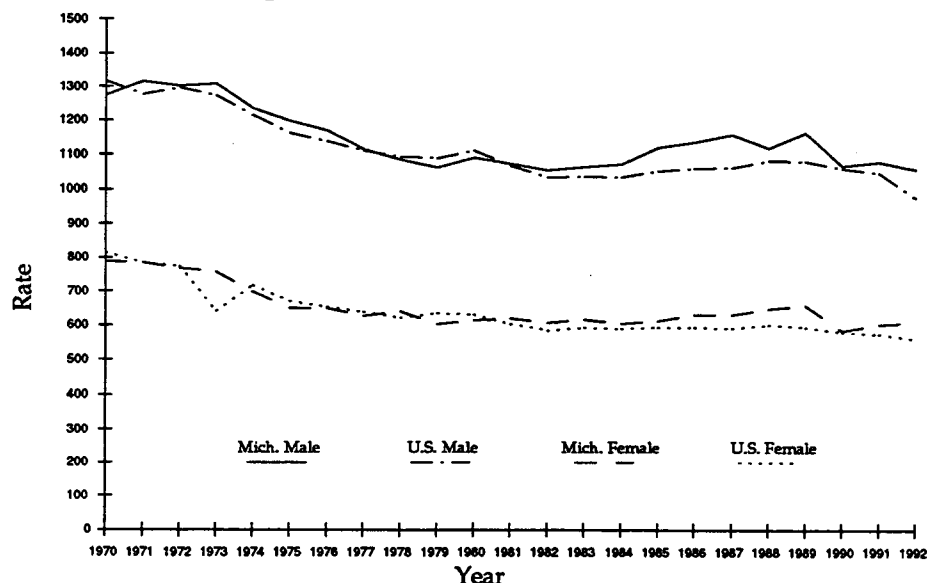
Figure 2.3
White Age-Adjusted Death Rates¹ by Sex
 Michigan² and United States³ Residents, 1970-1992



- ¹ 1990 Census population is used to calculate 1990-1992 rates. Based on age-specific death rates per 100,000 population in specified group. Computed by the direct method, using as the standard population the age distribution of the total population of the United States as enumerated in 1940; see Technical Notes.
- ² Michigan rates for 1981-1985 have been revised based upon revisions to population estimates; see Technical Notes.
- ³ United States data for 1992 is provisional.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Figure 2.4
Black Age-Adjusted Death Rates¹ by Sex
 Michigan² and United States³ Residents, 1970-1992



- ¹ 1990 Census population is used to calculate 1990-1992 rates. Based on age-specific death rates per 100,000 population in specified group. Computed by the direct method, using as the standard population the age distribution of the total population of the United States as enumerated in 1940; see Technical Notes.
- ² Michigan rates for 1981-1985 have been revised based upon revisions to population estimates; see Technical Notes.
- ³ United States data for 1992 is provisional.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

MORTALITY BY RACE AND ANCESTRY

Table 2.2 presents data on the number of deaths by race for the period 1980-1992 and ancestry since 1989. In 1992 deaths of white persons (66,377) accounted for 84.1 percent of all deaths, while deaths of black persons constituted 15.0 percent of the state total. For less than one percent of the deaths, the race was reported as American Indian or Asian and Pacific Islander. For 0.6 percent and 0.8 percent of the deaths, the ancestry was listed as Arab or Hispanic, respectively. It should be noted that data on race and ancestry are derived from the death certificates filed by funeral directors. Data from sources where

race is self-enumerated, when matched with death data, indicate that there are larger numbers of American Indians and persons of races other than white and black dying than are reported as members of those groups on the death certificate¹. However, the major increase in 1989 in the number of American Indian deaths listed as the decedent's race may be due to the inclusion of ancestry on the death certificate that year. By requesting information about ancestry, certifiers may be identifying American Indian decedents who might otherwise be identified as white.

Table 2.2
Number of Deaths by Race¹ and Ancestry
Michigan Residents, Selected Years, 1980 - 1992

Year	Race						Ancestry	
	Total	White	Black	Amer. Indian	Asian & P.I.	Other	Arab	Hispanic
1980	74,991	64,897	9,704	137	92	1	N.A.	N.A.
1985	78,635	67,426	10,903	130	115	1	N.A.	N.A.
1986	80,177	68,602	11,283	139	132	2	N.A.	N.A.
1987	79,795	67,831	11,614	137	144	2	N.A.	N.A.
1988	80,075	68,191	11,569	132	149	3	N.A.	N.A.
1989	78,566	66,031	11,939	335	183	2	486	612
1990	78,501	66,156	11,739	352	215	5	471	603
1991	79,738	67,182	11,980	324	208	2	547	627
1992	78,916	66,377	11,868	389	233	2	508	635

¹ Deaths with race unknown are in the "Total" column only.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

¹ National Center for Health Statistics, *Comparability of Marital Status, Race, Nationality and Country of Origin in the Death Certificate and Matching Census Record: United States, May - August, 1986* (Washington, D.C., 1989).

NUMBER OF DEATHS BY AGE, RACE AND SEX

The numbers of deaths increased with age through age 75-79. Half of all deaths occurred at or below age 74. For males half the deaths occurred at or above 71, while for females, half occurred at or below age 78. Males represented over half the deaths (51.3 percent) in 1992. Among black persons a higher

percentage of deaths (54.9 percent) were to males.

Until age 79 more males than females died in each age group. After age 79 more females died.

Table 2.3
Number of Deaths by Age, Race and Sex¹
Michigan Residents, 1992

Age in Years	All Races			White			Black			All Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
< 1	1,460	840	618	781	450	331	656	377	277	23	13	10
1-4	256	163	93	158	107	51	91	52	39	6	3	3
5-9	167	102	65	116	70	46	48	29	19	3	3	-
10-14	189	130	59	140	99	41	47	29	18	2	2	-
15-19	537	388	149	354	246	108	177	138	39	6	4	2
20-24	761	582	179	466	358	108	278	212	66	16	11	5
25-29	807	580	227	502	357	145	287	210	77	13	11	2
30-34	1,056	712	344	750	507	243	293	196	97	12	8	4
35-39	1,398	966	432	920	644	276	461	309	152	16	12	4
40-44	1,732	1,120	612	1,156	766	390	548	339	209	28	15	13
45-49	2,008	1,279	729	1,435	911	524	533	342	191	39	25	14
50-54	2,571	1,521	1,050	2,000	1,179	821	532	318	214	36	22	14
55-59	3,394	2,039	1,355	2,651	1,614	1,037	696	391	305	45	32	13
60-64	5,517	3,293	2,224	4,468	2,727	1,741	977	529	448	70	37	33
65-69	8,192	4,772	3,420	6,859	4,031	2,828	1,261	696	565	70	43	27
70-74	10,074	5,672	4,402	8,678	4,911	3,767	1,324	729	595	63	26	37
75-79	10,992	5,701	5,291	9,716	5,044	4,672	1,207	618	589	63	36	27
80-84	10,791	4,950	5,841	9,629	4,418	5,211	1,098	499	599	56	26	30
85-89	9,003	3,500	5,503	8,228	3,182	5,046	734	303	431	38	13	25
90+	8,007	2,208	5,799	7,367	1,999	5,368	619	202	417	19	6	13
Not Stated	4	1	3	3	1	2	1	-	1	-	-	-
All Ages	78,916	40,519	38,395	66,377	33,621	32,756	11,868	6,518	5,348	624	348	276

¹ Deaths with race and/or sex not stated are included only in the total column.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

AGE-SPECIFIC MORTALITY BY RACE AND ANCESTRY

The race and age-specific mortality rates were lowest in Asian and Pacific Islanders and next lowest for the white population below age 85 years (Table 2.4). Age-specific rates were highest for the black population below age 55 years and highest for American Indians at 55 years of age and over. Rates for persons of Hispanic ancestry were similar to the rates for white and Asian and Pacific Islanders.

Similarly, for both males and females the age-specific mortality rates are generally lowest for the white and Asian and Pacific Islander populations and for persons of Hispanic ancestry (Tables 2.5 and 2.6). Below 55 years of age these rates are highest for black males and females and between 55 and

84 they are highest for American Indian males and females. The age-adjusted rates indicate the same pattern of differences between the race and ancestry groups.

Caution must be exercised when interpreting the low age-adjusted rates for Asian and Pacific Islanders. They may be low due to improper identification of the race. Also since this population has increased by 68.9 percent between 1980 and 1990, predominately through in-migration, the low mortality rates for people over 45 years of age may be due in part to selective migration. Healthier older people may be more willing to migrate to another state or country than the less healthy people.

Table 2.4
Death Rates¹ by Age, Race and Hispanic Ancestry
Michigan Residents, 1992

Age in Years	Race					Hispanic Ancestry
	Total ²	White	Black	Amer. Indian	Asian & P.I.	
Crude Rate	849.0	847.9	914.7	674.7	219.4	315.0
< 1	1,015.1	700.7	2,212.0	1,333.3	918.1	885.2
1-14	31.9	26.7	57.9	32.6	21.8	26.4
15-24	92.3	71.9	194.9	119.0	45.2	107.9
25-34	118.3	94.7	268.9	136.1	53.2	106.8
35-44	223.2	174.5	541.5	336.9	86.2	197.0
45-54	485.0	419.4	980.2	817.3	311.6	325.8
55-64	1,122.2	1,023.8	1,851.2	2,480.6	687.4	674.8
65-74	2,792.0	2,678.7	3,725.0	4,370.4	2,005.7	2,065.1
75-84	6,319.3	6,233.8	7,120.8	9,597.9	4,464.3	3,947.4
85+	16,177.6	16,399.3	14,062.0	21,341.5	9,333.3	10,352.9
Age-Adjusted Rate ³	525.3	483.2	806.9	843.1	335.3	370.5

¹ 1990 Census population is used to calculate 1992 rates. 1992 live births are used to calculate rates for less than one year of age.

² Deaths with sex or race not stated were randomly allocated prior to computation of age-specific death rates. Deaths with age not stated were included in the category 85 and over. Deaths to all other races are included only in the total column.

³ Based on age-specific death rates per 100,000 population in specified group. Computed by the direct method, using as the standard population the age distribution of the total population of the United States as enumerated in 1940.

Table 2.5
Death Rates¹ by Age, Race and Hispanic Ancestry
 Michigan Male Residents, 1992

Age in Years	Race					Hispanic Ancestry
	Total ²	White	Black	Amer. Indian	Asian & P.I.	
Crude Rate	897.9	879.6	1,075.6	741.4	258.3	392.9
< 1	1,137.4	784.7	2,503.8	1,219.5	1,078.2	1,019.0
1-14	40.2	34.7	67.9	50.9	29.1	35.8
15-24	137.3	104.7	309.9	180.9	48.4	155.5
25-34	167.0	131.2	417.6	196.6	87.7	159.8
35-44	302.8	237.8	773.1	510.8	74.9	296.0
45-54	605.6	516.8	1,335.1	1,129.9	345.4	397.0
55-64	1,411.0	1,300.4	2,288.7	2,821.3	1,140.7	920.5
65-74	3,642.1	3,509.1	4,772.8	5,350.8	2,378.6	2,889.6
75-84	8,283.0	8,188.6	9,178.9	11,881.2	5,829.6	5,226.5
85+	19,309.3	19,723.1	16,192.0	13,461.5	11,000.0	13,157.9
Age-Adjusted Rate ³	677.3	623.7	1,059.9	1,021.2	430.2	503.0

¹ 1990 Census population is used to calculate 1992 rates. 1992 live births are used to calculate rates for less than one year of age.

² Deaths with sex or race not stated were randomly allocated prior to computation of age-specific death rates. Deaths with age not stated were included in the category 85 and over. Deaths to all other races are included only in the total column.

³ Based on age-specific death rates per 100,000 population in specified group. Computed by the direct method, using as the standard population the age distribution of the total population of the United States as enumerated in 1940.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 2.6
Death Rates¹ by Age, Race and Hispanic Ancestry
 Michigan Female Residents, 1992

Age in Years	Race					Hispanic Ancestry
	Total ²	White	Black	Amer. Indian	Asian & P.I.	
Crude Rate	802.8	817.6	773.7	609.7	181.7	235.5
< 1	883.2	611.7	1,897.9	1,470.6	741.8	749.8
1-14	23.2	18.3	47.7	13.4	14.5	16.8
15-24	46.8	38.2	87.2	55.6	41.7	57.9
25-34	71.3	58.5	147.2	77.0	19.2	51.6
35-44	146.4	111.6	352.0	177.9	95.8	94.4
45-54	369.2	324.4	684.0	526.1	276.7	252.8
55-64	859.9	768.4	1,501.2	2,170.2	313.6	433.6
65-74	2,128.6	2,027.7	2,931.8	3,607.8	1,743.4	1,357.7
75-84	5,150.9	5,073.2	5,880.0	8,119.7	3,380.8	3,064.9
85+	14,952.9	15,130.2	13,040.8	25,000.0	8,000.0	8,464.6
Age-Adjusted Rate ³	404.4	372.4	608.7	684.5	257.5	251.8

¹ 1990 Census population is used to calculate 1992 rates. 1992 live births are used to calculate rates for less than one year of age.

² Deaths with sex or race not stated were randomly allocated prior to computation of age-specific death rates. Deaths with age not stated were included in the category 85 and over. Deaths to all other races are included only in the total column.

³ Based on age-specific death rates per 100,000 population in specified group. Computed by the direct method, using as the standard population the age distribution of the total population of the United States as enumerated in 1940.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

LIFE EXPECTANCY

In 1992 the life expectancy at birth was 71.9 years for males and 78.2 years for females based on 1992 mortality and 1990 census population data. Females demonstrated a significantly greater longevity than males, due to the higher mortality rates of males at all ages.

TREND IN LIFE EXPECTANCY

Life expectancies by sex in selected years for Michigan and United States residents are presented in Table 2.7. It can be seen that longevity has increased greatly in Michigan since 1901, by 18.5 years for males and by 23.1 years for females. Females born in Michigan in 1901 could expect to live 1.7 years longer than their male counterparts. By 1950 the differential in life expectancy between the sexes was 5.5 years. This disparity increased to 7.4 years by 1970. Since 1970 male life expectancy has risen faster than female life expectancy and the disparity has decreased to 6.3 years.

The life expectancy of Michigan residents was well above that for the nation in 1901, but this differential had virtually disappeared by 1950. Between 1981 and 1991 both males and females in Michigan had lower life expectancy than corresponding sex groups in the nation. By 1991 the life expectancies of males and females in Michigan were 0.3 and 0.9 years, respectively, below the national provisional life expectancy.

LIFE EXPECTANCY BY RACE

White persons have had a greater life expectancy than black persons of the same sex since 1950 (Table 2.8). The life expectancy of white males was 9.3 years greater than black males in 1992 compared to a differential of 5.8 years in 1950. While life expectancy for white

Table 2.7
Life Expectancy¹ at Birth by Sex
Michigan² and United States Residents
Selected Years, 1901 - 1992

United States		Year	Michigan	
Male	Female		Male	Female
47.6	50.6	1901	53.4	55.1
48.4	51.8	1910	53.9	56.2
53.6	54.6	1920	55.1 ¹	56.0 ¹
58.1	61.6	1930	59.8 ¹	62.8 ¹
60.8	65.2	1940	63.4 ¹	64.4 ¹
65.6	71.1	1950	65.7	71.2
66.6	73.1	1960	67.1	73.3
67.1	74.7	1970	67.2	74.6
68.8	76.6	1975	68.5	75.7
70.0	77.4	1980	70.0	76.9
70.4	77.8	1981	70.3	77.1
70.9	78.1	1982	70.6	77.4
71.0	78.1	1983	70.7	77.4
71.2	78.2	1984	70.8	77.2
71.2	78.2	1985	70.6	77.4
71.3	78.3	1986	70.7	77.4
71.5	78.4	1987	71.1	77.4
71.5	78.3	1988	71.3	77.6
72.2	79.1	1989	71.6	77.7
71.8	78.8	1990	71.7	78.1
72.0	78.9	1991	71.7	78.0
N.A.	N.A.	1992	71.9	78.2

¹ 1990 Census population is used to calculate 1990-1992 rates.

² Michigan data for years 1920, 1930 and 1940 are for white persons only.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

males increased slowly after 1980, life expectancy of black males decreased in the mid 1980's. The 1992 black male life expectancy was still slightly lower than it had been in 1982. The life expectancy for white males rose from 68.2 in 1970 to 73.3 years in 1992.

In 1950, Michigan resident white females had an average longevity 8.5 years greater than black females. This disparity declined to 5.4 years by 1980 and increased to 6.5 years by 1992. Life expectancy generally increased for white females between 1950 and 1992, but it rose until 1982 for black females and generally declined through 1989. By 1992 their life expectancy increased to 72.7 again,

the same average longevity achieved ten years before.

YEARS OF LIFE REMAINING

The expected number of years of life remaining are presented graphically by age, race, and sex in Figure 2.5. The number of years of life remaining for females was greater

than that for males throughout life. The average number of years remaining for white males and females surpassed or equaled that of their black counterparts for all age groups. However, with advancing age the race disparity in years of life remaining diminished, so that black persons displayed similar expected years of life remaining with their white counterparts in age intervals over 69 years.

Table 2.8
Life Expectancy¹ at Birth by Sex and Race
Michigan Residents, Selected Years, 1950 - 1992

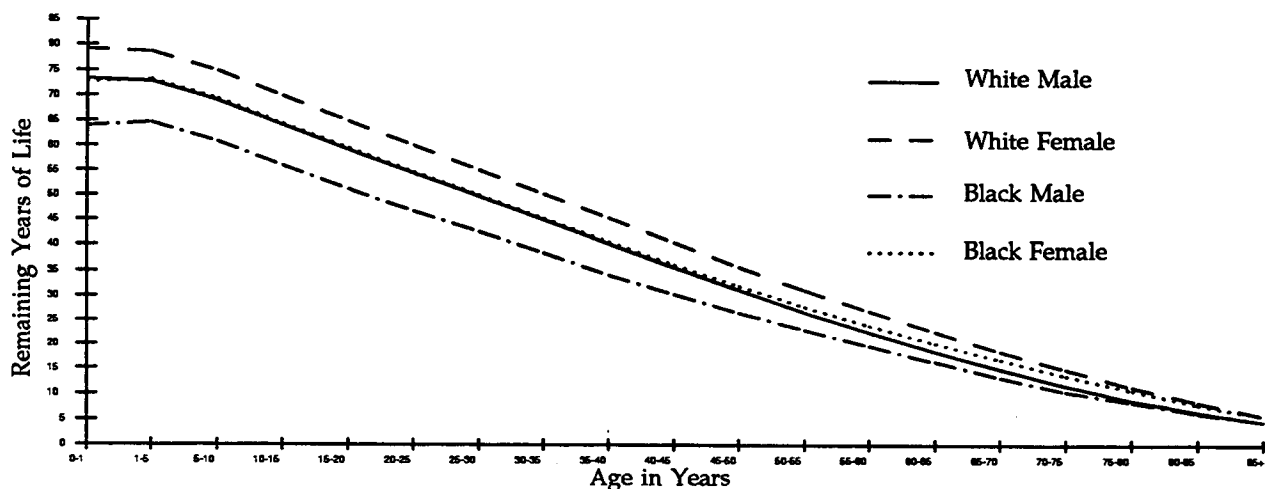
Population Subgroup	Year														
	1950	1960	1970	1980	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
White															
Male	66.2	67.5	68.2	71.0	71.5	71.6	71.8	71.7	71.9	72.4	72.6	73.1	73.1	73.1	73.3
Female	71.9	74.0	75.3	77.6	78.0	78.1	78.0	78.1	78.2	78.2	78.5	78.8	79.0	78.8	79.2
Black ²															
Male	60.4	63.6	59.9	63.5	64.1	64.2	63.9	62.9	62.7	62.4	63.1	62.3	63.8	63.4	64.0
Female	63.4	67.7	68.3	72.2	72.7	72.5	72.5	72.5	72.0	72.0	71.8	71.4	73.2	72.8	72.7

¹ 1990 Census population is used to calculate 1990-1992 rates.

² Data for 1950 and 1960 are for persons other than white.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Figure 2.5
Remaining Years of Life by Age, Sex and Race
Michigan Residents, 1992



¹ 1990 Census population is used to calculate 1992 rates.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

MARITAL STATUS

The numbers of deaths by marital status for men and women are displayed in Table 2.9. The majority of men were married at the time of death while the majority of women were widows. Men were more than twice as likely as women to be married at the time of death (56.9 percent compared to 26.6 percent). Conversely, women were over three times as likely to be widows at the time of death as men were to be widowers (55.9 percent compared to 17.7 percent).

PLACE OF OCCURRENCE

There were 2,017 Michigan resident deaths in 1992 that occurred outside the state (Table 2.10). This represents 2.6 percent of all resident deaths. The states with the highest number of Michigan resident deaths were Florida and Ohio. The border areas of Illinois, Indiana, Ohio, Wisconsin and Canada accounted for 53.6 percent of all resident deaths occurring outside Michigan.

Of the 2,030 non-residents who died in Michigan in 1992, 53.9 percent were from the border areas while 19.6 percent were Floridians.

Table 2.9
Deaths by Sex and Marital Status
Michigan Residents, 1992

Marital Status ¹	Males		Females	
	Number	Percent	Number	Percent
Total	40,519	100.0	38,395	100.0
Never Married	6,063	15.0	3,509	9.1
Divorced	4,131	10.2	3,172	8.3
Widowed	7,152	17.7	21,449	55.9
Married	23,060	56.9	10,210	26.6
Unknown	113	0.3	55	0.1

¹ Divorced includes legally separated.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 2.10
Michigan Deaths
Occurring Outside Michigan to Michigan
Residents by Place of Occurrence and
Occurring in Michigan to Non-Michigan
Residents by Place of Residence, 1992

Geographic Area	Residents Occurring Outside Michigan		Non-Residents Occurring In Michigan	
	Number	Percent	Number	Percent
Total	2,017	100.0	2,030	100.0
Florida	398	19.7	397	19.6
Ohio	394	19.5	402	19.8
Wisconsin	312	15.5	314	15.5
Indiana	269	13.3	270	13.3
Illinois	81	4.0	82	4.0
Arizona	73	3.6	73	3.6
Texas	63	3.1	63	3.1
Minnesota	53	2.6	53	2.6
California	36	1.8	36	1.8
Tennessee	33	1.6	33	1.6
Pennsylvania	26	1.3	26	1.3
Georgia	24	1.2	6	0.3
New York	6	0.3	24	1.2
Canada	25	1.2	26	1.3
Other Areas	224	11.1	225	11.1

Source: Office of the State Registrar and Division for Health Statistics, MDPH

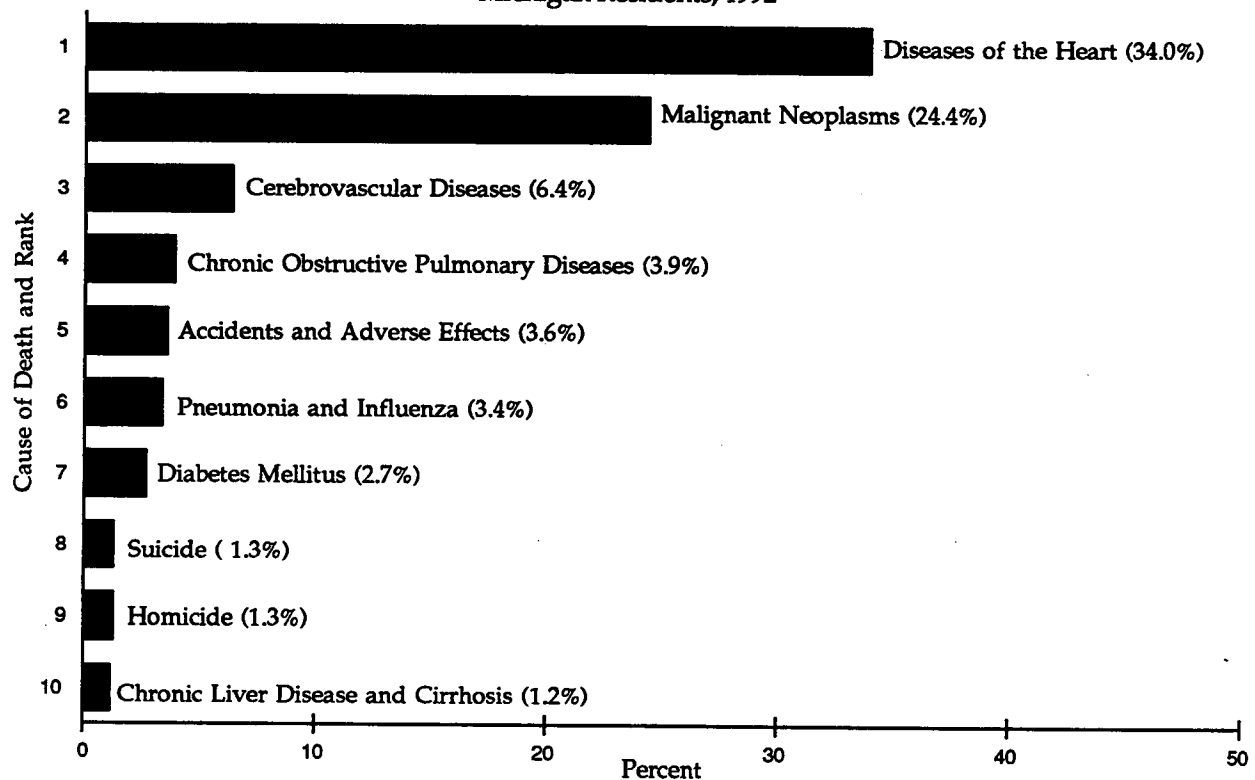
LEADING CAUSES OF DEATH

Ten Leading Causes of Death Deaths due to the 10 leading causes accounted for 82.3 percent of all deaths in 1992. Diseases of the heart was the leading cause of death with 34.0 percent of all deaths. Another 24.4 percent of the deaths were due to cancer. Together these two causes of death were responsible for 58.4 percent of all Michigan resident deaths. The third leading cause of death was cerebrovascular diseases with 6.4 percent of all deaths. The percentage of total deaths resulting from

each of the 10 leading causes of death in 1992 is illustrated in Figure 2.6.

The numbers of deaths and the death rates for the 10 leading causes in 1992 are shown in Table 2.11. The ranking is unchanged from 1991 with chronic obstructive pulmonary diseases still ranked 4th. In 1991 accidents dropped from 4th to 5th leading cause of deaths in Michigan for the first time since 1930. This same change occurred nationally in 1992.

Figure 2.6
Leading Causes of Death
Michigan Residents, 1992



Source: Office of the State Registrar and Division for Health Statistics, MDPH

Cause-Specific Crude Death Rates These rates in Michigan were higher in 1992 than in 1991 for two of the ten leading causes: malignant neoplasms and diabetes mellitus. The rates were lower for diseases of the heart, cerebrovascular diseases, chronic obstructive pulmonary diseases and allied conditions, accidents and adverse effects, pneumonia and influenza, suicide, homicide, and chronic liver disease and cirrhosis.

The order of the leading causes of death for Michigan and the United States were the same in 1992 (Table 2.11). The overall Michigan death rate was slightly lower than the national rate (0.5 percent). Michigan's mortality rates for diabetes mellitus and homicide were 15.8 and 11.9 percent higher, respectively, than the comparable national rates. The Michigan death rates for accidents and chronic obstructive pulmonary disease were about seven percent lower than the national rates.

Table 2.11
Leading Causes of Death and Cause-Specific Rates¹
Michigan and United States² Residents, 1992

Rank	Cause of Death	Number of Deaths		Rate	
		Michigan	U.S.	Michigan	U.S.
1	Diseases of the Heart	26,863	718,970	289.0	280.5
2	Malignant Neoplasms	19,217	520,520	206.7	203.1
3	Cerebrovascular Diseases	5,087	143,320	54.7	55.9
4	Chronic Obstructive Pulmonary Disease and Allied Conditions	3,076	91,080	33.1	35.5
5	Accidents and Adverse Effects	2,844	84,360	30.6	32.9
6	Pneumonia and Influenza	2,697	75,860	29.0	29.6
7	Diabetes Mellitus	2,114	50,220	22.7	19.6
8	Suicide	1,063	28,710	11.4	11.2
9	Homicide	1,047	25,790	11.3	10.1
10	Chronic Liver Disease and Cirrhosis	947	24,860	10.2	9.7
Sub Total		64,955	1,763,690	698.8	688.1
All Other Causes		13,961	413,310	150.2	165.2
Total		78,916	2,177,000	849.0	853.3

¹ 1990 Census population is used to calculate 1992 rates.

² United States data are estimates based on a 10 percent sample of deaths.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Leading Causes of Death by Race and Sex
The numbers of deaths and crude death rates are presented by race and sex for the 10 leading causes of death in Tables 2.12 and 2.13. The order of the leading causes for each group was similar with some notable exceptions. Suicide, the overall eighth leading cause of death, was the seventh leading cause for white males. Accidents, the fifth leading cause of death, was the seventh leading cause for white females. Homicide, the ninth lead-

ing cause of death, was the third and sixth leading cause of death for black males and females, respectively. Finally, diabetes, the seventh leading cause, was the fourth leading cause for black females. Most of these differences were also observed in 1991.

It is noteworthy that the homicide rate for black males decreased from 110.3 deaths per 100,000 in 1991 to 95.3 deaths 1992.

Table 2.12
Leading Causes of Death by Race and Sex¹
Michigan Residents, 1992

Cause of Death	All Races			White			Black			All Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Diseases of the Heart	26,863	13,403	13,460	23,194	11,539	11,655	3,473	1,746	1,727	184	109	75
Malignant Neoplasms	19,217	10,238	8,979	16,452	8,691	7,761	2,615	1,464	1,151	147	81	66
Cerebrovascular Diseases	5,087	1,989	3,098	4,442	1,703	2,739	607	273	334	37	13	24
Chronic Obstructive Pulmonary Diseases and Allied Conditions	3,076	1,741	1,335	2,798	1,577	1,221	257	154	103	20	9	11
Accidents and Adverse Effects	2,844	1,844	1,000	2,370	1,530	840	424	283	141	48	31	17
Pneumonia/Influenza	2,697	1,308	1,389	2,367	1,117	1,250	316	184	132	13	6	7
Diabetes Mellitus	2,114	892	1,222	1,702	722	980	389	158	231	23	12	11
Suicide	1,063	861	202	945	761	184	105	90	15	13	10	3
Homicide	1,047	819	228	320	234	86	718	578	140	9	7	2
Chronic Liver Disease and Cirrhosis	947	624	323	710	471	239	220	140	80	17	13	4
All Other Causes	13,961	6,800	7,159	11,077	5,276	5,801	2,744	1,448	1,294	113	57	56
Total	78,916	40,519	38,395	66,377	33,621	32,756	11,868	6,518	5,348	624	348	276

¹ Deaths with race/sex not stated are included only in the "Total" column.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 2.13
Leading Causes of Death and Crude Death Rates¹ by Race and Sex²
Michigan Residents, 1992

Cause of Death	All Races			White			Black		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Diseases of the Heart	289.0	297.0	281.4	296.2	301.8	290.9	267.6	288.2	249.6
Malignant Neoplasms	206.7	226.9	187.7	210.1	227.2	193.7	201.5	241.4	166.5
Cerebrovascular Diseases	54.7	44.1	64.8	56.7	44.5	68.4	46.8	45.0	48.3
Chronic Obstructive Pulmonary Diseases and Allied Conditions	33.1	38.6	27.9	35.7	41.2	30.5	19.8	25.4	14.9
Accidents and Adverse Effects	30.6	40.9	20.9	30.3	40.0	21.0	32.7	46.7	20.5
Pneumonia/Influenza	29.0	29.0	29.0	30.2	29.2	31.2	24.3	30.3	19.1
Diabetes Mellitus	22.7	19.8	25.6	21.7	18.9	24.5	30.0	26.1	33.4
Suicide	11.4	19.1	4.2	12.1	19.9	4.6	8.1	14.8	2.2
Homicide	11.3	18.1	4.8	4.1	6.1	2.1	55.3	95.3	20.2
Chronic Liver Disease and Cirrhosis	10.2	13.8	6.8	9.1	12.3	6.0	16.9	23.1	11.6
All Other Causes	150.2	150.7	149.7	141.7	138.4	144.9	211.6	239.3	187.3
Total	849.0	897.9	802.8	847.9	879.6	817.7	914.6	1,075.6	773.5

¹ 1990 Census population is used to calculate 1992 rates.

² Death with race/sex not stated are included only in the "Total" column.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Age-adjusted Rates by Race and Sex
These rates are presented for the ten leading causes of death in Table 2.14. These rates are adjusted for the differences in age distributions among the groups. The age-adjusted death rates for white females were lower than the rates for the other three groups for eight of the ten leading causes of death. The greatest differentials between black and white female rates occurred for diabetes, chronic liver disease and cirrhosis, and homicide where the black female rates were 2.3, 2.9 and 9.1 times higher, respectively, than rates for white females.

Rates for black males and females were lower for chronic obstructive pulmonary diseases and allied conditions and suicides than their white counterparts. Black male rates were higher than white male rates, for the remaining ten leading causes of death. The greatest differentials between black and white male rates occurred for diabetes, chronic liver disease and cirrhosis, and homicide where black males rates were 2.0, 2.5 and 15.6 times higher. For the remaining conditions the black male and female rates were 1.3 to 1.7 times higher than rates for their white counterparts.

Table 2.14
Leading Causes of Death and Age-Adjusted Death Rates¹ by Race and Sex²
Michigan Residents, 1992

Cause of Death	All Races			White			Black		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Diseases of the Heart	157.9	211.5	116.0	149.2	202.2	107.7	223.4	284.4	177.0
Malignant Neoplasms	140.5	173.8	117.0	134.4	165.0	112.8	188.6	246.9	147.0
Cerebrovascular Diseases	27.4	29.5	25.8	25.8	27.7	24.3	38.9	43.9	35.0
Chronic Obstructive Pulmonary Diseases and Allied Conditions	19.5	26.6	14.8	19.5	26.8	14.9	17.8	24.9	13.0
Accidents and Adverse Effects	26.3	38.0	15.4	25.4	36.6	14.8	31.9	47.9	18.5
Pneumonia/Influenza	13.7	18.3	10.6	12.7	16.9	10.0	20.3	29.2	13.7
Diabetes Mellitus	14.4	15.1	13.6	12.6	13.5	11.8	27.6	27.6	27.4
Suicide	10.8	18.2	3.9	11.2	18.5	4.2	8.1	15.0	2.2
Homicide	11.7	18.6	4.9	4.1	6.2	2.2	55.6	96.6	20.1
Chronic Liver Disease and Cirrhosis	8.6	12.4	5.2	7.1	10.5	4.2	18.6	26.6	12.2
All Other Causes	94.5	115.3	77.0	81.2	99.8	65.5	175.8	216.9	142.4
Total	525.3	677.3	404.4	483.1	623.7	372.4	806.8	1,060.0	608.6

¹ 1990 Census population is used to calculate 1992 rates.

² Deaths with race/sex not stated are included only in the "Total" column.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Five Leading Causes by Age, Race and Sex
Age-specific mortality rates for the leading causes of death among residents of different ages, sexes and races are more varied than age-adjusted rates for the race-sex groups (Tables 2.15 through 2.19).

Leading causes of death for infants are generally different than the causes observed for other age groups. The leading cause for all four race-sex groups of infants is certain conditions originating in the perinatal period. Congenital anomalies and sudden infant death syndrome were the second or third leading cause for infants in each group.

Accidents were the leading cause of death for white males and females from ages 1 through 34 years. Accidents were among the top leading causes of death for black males and females ages 1 to 34 years and were the leading cause for ages 1 to 14 years.

Homicide was the second leading cause of death overall for ages 15 through 34 years, but was the leading cause of death for black males and females ages 15 through 34 years and the second leading cause of death for black males ages 5 through 14 years. In fact, over half of the homicides among Michigan residents occurred among black males 15 to 49 years of age. Compared to homicide rates in 1991, the rates for black males ages 15-24, 25-34 and 35-49 decreased 19.1, 6.3 and 17.2 percent, respectively.

Suicide was the third leading cause of death overall for ages 15-34 and second among white males. Suicide was the third or fourth leading cause among black males and white females ages 15 through 34 years.

Among persons 35 years and over, chronic conditions are responsible for the majority of deaths. Malignant neoplasms was the leading cause of death for black and white females ages 35 to 64 years and white males ages 50-64 years.

Diseases of the heart was the leading cause of death for black males ages 35 years or over, white males ages 35-49 years and 65 years and over and black and white females 65 years of age or over.

AIDS Overall, AIDS is the fourth leading cause of death for people 25 to 49 years of age. Among white males it is the third leading cause of death for ages 25-34 years of age and fifth for ages 35-49 years of age. It was second and fourth leading cause for black males ages 25-34 and 35-49 years of age, respectively. AIDS was also the fifth leading cause for black males 15-24 years of age. For black females, AIDS was the fourth leading cause for ages 25-49. AIDS was not one of the top five causes of death for any white female age group in 1992. The first year that AIDS was among the five leading causes in a race-sex-age group was 1987 but that was also the first year that AIDS deaths could be tabulated separately from pneumonia, cancer and other causes of death.

Table 2.15
Leading Causes of Death and Cause-Specific Rates by Age
 Michigan Residents, 1992

Age	Rank and Cause of Death	Number ¹	Rate ^{2,3,4}
All Ages	1. Diseases of the Heart	26,863	289.0
	2. Malignant Neoplasms	19,217	206.7
	3. Cerebrovascular Diseases	5,087	54.7
	4. Chronic Obstructive Pulmonary Diseases and Allied Conditions	3,076	33.1
	5. Accidents	2,844	30.6
	All Causes	78,916	849.0
Under 1 Year	1. Certain Conditions Originating in the Perinatal Period	777	513.7
	2. Congenital Anomalies	248	164.0
	3. Sudden Infant Death Syndrome	243	160.6
	4. Accidents	29	19.2
	5. Pneumonia and Influenza	20	13.2
	All Causes	1,460	965.2
1-4 Years	1. Accidents	95	16.9
	2. Congenital Anomalies	28	5.0
	3. Malignant Neoplasms	22	3.9
	4. Homicide	19	3.4
	5. Diseases of the Heart	14	2.5
	All Causes	256	45.5
5-14 Years	1. Accidents	167	12.3
	2. Malignant Neoplasms	50	3.7
	3-4. Homicide-Congenital Anomalies	19	1.4
	5-6. Diseases of the Heart-Pneumonia and Influenza	7	0.5
	All Causes	356	26.3
	15-24 Years	1. Accidents	441	31.3
2. Homicide		357	25.4
3. Suicide		179	12.7
4. Malignant Neoplasms		84	6.0
5. Diseases of the Heart		32	2.3
All Causes		1,298	92.3
25-34 Years	1. Accidents	393	25.0
	2. Homicide	282	17.9
	3. Suicide	234	14.9
	4. HTLV-III/LAV Infection (AIDS)	198	12.6
	5. Malignant Neoplasms	196	12.4
	All Causes	1,863	118.3
35-49 Years	1. Malignant Neoplasms	1,209	62.9
	2. Diseases of the Heart	1,008	52.4
	3. Accidents	463	24.1
	4. HTLV-III/LAV Infection (AIDS)	300	15.6
	5. Suicide	287	14.9
	All Causes	5,138	267.3
50-64 Years	1. Malignant Neoplasms	4,397	361.0
	2. Diseases of the Heart	3,482	285.8
	3. Cerebrovascular Diseases	441	36.2
	4. Chronic Obstructive Pulmonary Diseases and Allied Conditions	420	34.5
	5. Diabetes	358	29.4
	All Causes	11,482	942.6
65 and Over	1. Diseases of the Heart	22,187	2,009.5
	2. Malignant Neoplasms	13,256	1,200.6
	3. Cerebrovascular Diseases	4,412	399.6
	4. Chronic Obstructive Pulmonary Diseases and Allied Conditions	2,578	233.5
	5. Pneumonia and Influenza	2,376	215.2
	All Causes	57,059	5,167.9

¹ Subtotals by sex and race do not add to the grand total as the race was not stated on records for 32 males and 15 females. In addition, the sex was not stated on 2 other than white persons. Age groups do not add to respective totals because records with age not stated are included only in the total.

² Rates may not agree with those shown elsewhere in this section since records of unknown sex and race were randomly allocated prior to rate calculation for the other tables, and were not included in calculations for this table.

³ Rate per 100,000 population.

⁴ 1990 Census population is used to calculate 1992 rates.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 2.16
Leading Causes of Death and Cause-Specific Rates by Age
 Michigan Resident White Males, 1992

Age	Rank and Cause of Death	Number ¹	Rate ^{2,4}
All Ages	1. Diseases of the Heart	11,539	301.6
	2. Malignant Neoplasms	8,691	227.2
	3. Cerebrovascular Diseases	1,703	44.5
	4. Chronic Obstructive Pulmonary Diseases and Allied Conditions	1,577	41.2
	5. Accidents	1,530	40.0
	All Causes	33,621	878.9
Under 1 Year	1. Certain Conditions Originating in the Perinatal Period	186	309.2
	2. Sudden Infant Death Syndrome	106	176.2
	3. Congenital Anomalies	99	164.6
	4. Accidents	11	18.3
	5. Pneumonia and Influenza-Diseases of the Heart	6	10.0
	All Causes	450	748.2
1-4 Years	1. Accidents	49	21.2
	2. Congenital Anomalies	15	6.5
	3. Malignant Neoplasms	8	3.5
	4. Diseases of the Heart	6	2.6
	5-6. Homicide-Certain Conditions Originating in the Perinatal Period	2	*
	All Causes	107	46.2
5-14 Years	1. Accidents	86	15.2
	2. Malignant Neoplasms	28	4.9
	3. Congenital Anomalies	7	1.2
	4. Suicide	4	*
	5. Homicide-Benign Neoplasms	3	*
	All Causes	169	29.8
15-24 Years	1. Accidents	277	48.0
	2. Suicide	123	21.3
	3. Homicide	60	10.4
	4. Malignant Neoplasms	40	6.9
	5. Congenital Anomalies	15	2.6
	All Causes	604	104.6
25-34 Years	1. Accidents	232	35.1
	2. Suicide	165	25.0
	3. HTLV-III/LAV Infection (AIDS)	102	15.4
	4. Malignant Neoplasms	67	10.1
	5. Diseases of the Heart	60	9.1
	All Causes	864	130.7
35-49 Years	1. Diseases of the Heart	552	67.6
	2. Malignant Neoplasms	447	54.8
	3. Accidents	283	34.7
	4. Suicide	211	25.9
	5. HTLV-III/LAV Infection (AIDS)	139	17.0
	All Causes	2,321	284.4
50-64 Years	1. Malignant Neoplasms	1,971	382.0
	2. Diseases of the Heart	1,917	371.5
	3. Chronic Obstructive Pulmonary Diseases and Allied Conditions	199	38.6
	4. Accidents	171	33.1
	5. Cerebrovascular Diseases	165	32.0
	All Causes	5,520	1,069.8
65 and Over	1. Diseases of the Heart	8,986	2,263.6
	2. Malignant Neoplasms	6,128	1,543.6
	3. Cerebrovascular Diseases	1,462	368.3
	4. Chronic Obstructive Pulmonary Diseases and Allied Conditions	1,354	341.1
	5. Pneumonia and Influenza	1,018	256.4
	All Causes	23,585	5,941.0

¹ Subtotals by sex and race do not add to the grand total as the race was not stated on records for 32 males and 15 females. In addition, the sex was not stated on 2 other than white persons. Age groups do not add to respective totals because records with age not stated are included only in the total.

² Rates may not agree with those shown elsewhere in this section since records of unknown sex and race were randomly allocated prior to rate calculation for the other tables, and were not included in calculations for this table.

³ Rate per 100,000 population.

⁴ 1990 Census population is used to calculate 1992 rates.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 2.17
Leading Causes of Death and Cause-Specific Rates by Age
 Michigan Resident Black Males, 1992

Age	Rank and Cause of Death	Number ¹	Rate ^{2,3,4}
All Ages	1. Diseases of the Heart	1,746	287.9
	2. Malignant Neoplasms	1,464	241.4
	3. Homicide	578	95.3
	4. Accidents	283	46.7
	5. Cerebrovascular Diseases	273	45.0
	All Causes	6,518	1,074.8
Under 1 Year	1. Certain Conditions Originating in the Perinatal Period	242	1,562.8
	2. Sudden Infant Death Syndrome	51	329.4
	3. Congenital Anomalies	28	180.8
	4. Pneumonia and Influenza	7	45.2
	5. Homicide	6	38.7
	All Causes	377	2,434.6
1-4 Years	1. Accidents	15	30.3
	2. Homicide	7	14.2
	3. Diseases of the Heart	6	12.1
	4-5. Congenital Anomalies-Malignant Neoplasms	4	*
	All Causes	52	105.2
5-14 Years	1. Accidents	30	26.6
	2. Homicide	8	7.1
	3. Diseases of the Heart	4	*
	4. Chronic Obstructive Pulmonary Diseases and Allied Conditions	3	*
	5. Congenital Anomalies	2	*
	All Causes	58	51.5
15-24 Years	1. Homicide	233	206.3
	2. Accidents	38	33.6
	3. Suicide	35	31.0
	4. Diseases of the Heart	8	7.1
	5-6. Malignant Neoplasms-HTLV-III/LAV Infection (AIDS)	7	6.2
	All Causes	350	309.9
25-34 Years	1. Homicide	164	168.7
	2. HTLV-III/LAV Infection (AIDS)	74	76.1
	3. Accidents	43	44.2
	4. Suicide	27	27.8
	5. Diseases of the Heart	19	19.5
	All Causes	406	417.6
35-49 Years	1. Diseases of the Heart	184	164.1
	2. Malignant Neoplasms	127	113.2
	3. Homicide	120	107.0
	4. HTLV-III/LAV Infection (AIDS)	117	104.3
	5-6. Chronic Liver Disease and Cirrhosis-Accidents	68	60.6
	All Causes	990	882.7
50-64 Years	1. Diseases of the Heart	402	654.5
	2. Malignant Neoplasms	399	649.6
	3. Cerebrovascular Diseases	55	89.5
	4. Chronic Liver Disease and Cirrhosis	46	74.9
	5. Diabetes	42	68.4
	All Causes	1,238	2,015.5
65 and Over	1. Diseases of the Heart	1,118	2,474.9
	2. Malignant Neoplasms	913	2,021.1
	3. Cerebrovascular Diseases	168	371.9
	4. Chronic Obstructive Pulmonary Diseases and Allied Conditions	109	241.3
	5. Pneumonia and Influenza	102	225.8
	All Causes	3,047	6,745.2

¹ Subtotals by sex and race do not add to the grand total as the race was not stated on records for 32 males and 15 females. In addition, the sex was not stated on 2 other than white persons. Age groups do not add to respective totals because records with age not stated are included only in the total.

² Rates may not agree with those shown elsewhere in this section since records of unknown sex and race were randomly allocated prior to rate calculation for the other tables, and were not included in calculations for this table.

³ Rate per 100,000 population.

⁴ 1990 Census population is used to calculate 1992 rates.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 2.18
Leading Causes of Death and Cause-Specific Rates by Age
 Michigan Resident White Females, 1992

Age	Rank and Cause of Death	Number ¹	Rate ^{2,3,4}
All Ages	1. Diseases of the Heart	11,655	290.8
	2. Malignant Neoplasms	7,761	193.7
	3. Cerebrovascular Diseases	2,739	68.3
	4. Pneumonia and Influenza	1,250	31.2
	5. Chronic Obstructive Pulmonary Diseases and Allied Conditions	1,221	30.5
	All Causes	32,756	817.4
Under 1 Year	1. Certain Conditions Originating in the Perinatal Period	162	282.2
	2. Congenital Anomalies	82	142.8
	3. Sudden Infant Death Syndrome	43	74.9
	4. Accidents	12	20.9
	5. Homicide-Pneumonia and Influenza-Meningococcal Infection	3	*
	All Causes	331	576.6
1-4 Years	1. Accidents	17	7.7
	2. Malignant Neoplasms	6	2.7
	3. Congenital Anomalies	5	*
	4-5. Certain Conditions Originating in the Perinatal Period-Benign Neoplasms	3	*
	All Causes	51	23.2
5-14 Years	1. Accidents	35	6.5
	2. Malignant Neoplasms	16	3.0
	3. Congenital Anomalies	6	1.1
	4. Pneumonia and Influenza	3	*
	5-7. Homicide-Diseases of the Heart-Certain Conditions Originating in the Perinatal Period	2	*
	All Causes	87	16.2
15-24 Years	1. Accidents	95	16.8
	2. Malignant Neoplasms	28	5.0
	3. Homicide	20	3.5
	4. Suicide	18	3.2
	5. Diseases of the Heart	10	1.8
	All Causes	216	38.2
25-34 Years	1. Accidents	93	13.9
	2. Malignant Neoplasms	87	13.0
	3. Suicide	35	5.2
	4. Diseases of the Heart	26	3.9
	5. Homicide	19	2.8
	All Causes	388	58.2
35-49 Years	1. Malignant Neoplasms	487	59.1
	2. Diseases of the Heart	154	18.7
	3. Accidents	85	10.3
	4. Cerebrovascular Diseases	52	6.3
	5. Suicide	48	5.8
	All Causes	1,190	144.5
50-64 Years	1. Malignant Neoplasms	1,649	299.9
	2. Diseases of the Heart	820	149.1
	3. Chronic Obstructive Pulmonary Diseases and Allied Conditions	166	30.2
	4. Cerebrovascular Diseases	163	29.6
	5. Diabetes	114	20.7
	All Causes	3,599	654.5
65 and Over	1. Diseases of the Heart	10,638	1,805.8
	2. Malignant Neoplasms	5,487	931.4
	3. Cerebrovascular Diseases	2,511	426.2
	4. Pneumonia and Influenza	1,159	196.7
	5. Chronic Obstructive Pulmonary Diseases and Allied Conditions	1,033	175.4
	All Causes	26,892	4,564.9

¹ Subtotals by sex and race do not add to the grand total as the race was not stated on records for 32 males and 15 females. In addition, the sex was not stated on 2 other than white persons. Age groups do not add to respective totals because records with age not stated are included only in the total.

² Rates may not agree with those shown elsewhere in this section since records of unknown sex and race were randomly allocated prior to rate calculation for the other tables, and were not included in calculations for this table.

³ Rate per 100,000 population.

⁴ 1990 Census population is used to calculate 1992 rates.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 2.19
Leading Causes of Death and Cause-Specific Rates by Age
Michigan Resident Black Females, 1992

Age	Rank and Cause of Death	Number ¹	Rate ^{2,3,4}
All Ages	1. Diseases of the Heart	1,727	249.6
	2. Malignant Neoplasms	1,151	166.4
	3. Cerebrovascular Diseases	334	48.3
	4. Diabetes Mellitus	231	33.4
	5. Certain Conditions Originating in the Perinatal Period	183	26.4
	All Causes	5,348	772.9
Under 1 Year	1. Certain Conditions Originating in the Perinatal Period	180	1,198.1
	2. Sudden Infant Death Syndrome	37	246.3
	3. Congenital Anomalies	28	186.4
	4. Accidents	4	*
	5-6. Pneumonia and Influenza-Septicaemia	3	*
	All Causes	277	1,843.7
1-4 Years	1. Accidents	11	22.7
	2. Homicide	10	20.6
	3. Congenital Anomalies	4	*
	4. Certain Conditions Originating in the Perinatal Period	3	*
	5-6. Malignant Neoplasms-Pneumonia and Influenza	2	*
	All Causes	39	80.5
5-14 Years	1. Accidents	14	12.6
	2. Homicide	6	5.4
	3-4. Malignant Neoplasms-Congenital Anomalies	4	*
	5. Pneumonia and Influenza	2	*
	All Causes	37	33.4
	15-24 Years	1. Homicide	42	34.9
2. Accidents		20	16.6
3. Malignant Neoplasms		7	5.8
4-6. Complications of Pregnancy, Childbirth and the Puerperium-Pneumonia and Influenza-Chronic Obstructive Pulmonary Diseases and Allied Conditions		4	*
All Causes		105	87.2
25-34 Years		1. Homicide	38	32.0
	2. Malignant Neoplasms	25	21.0
	3. Accidents	17	14.3
	4. HTLV-III/LAV Infection (AIDS)	14	11.8
	5. Diseases of the Heart	8	6.7
	All Causes	174	146.4
35-49 Years	1. Malignant Neoplasms	131	96.6
	2. Diseases of the Heart	94	69.3
	3. Chronic Liver Disease and Cirrhosis	40	29.5
	4. HTLV-III/LAV Infection (AIDS)	33	24.3
	5. Cerebrovascular Diseases	32	23.6
	All Causes	552	407.1
50-64 Years	1. Malignant Neoplasms	325	425.3
	2. Diseases of the Heart	289	378.2
	3. Diabetes Mellitus	59	77.2
	4. Cerebrovascular Diseases	55	72.0
	5. Chronic Obstructive Pulmonary Diseases and Allied Conditions	24	31.4
	All Causes	967	1,265.4
65 and Over	1. Diseases of the Heart	1,329	2,004.4
	2. Malignant Neoplasms	657	990.9
	3. Cerebrovascular Diseases	241	363.5
	4. Diabetes Mellitus	154	232.3
	5. Pneumonia and Influenza	85	128.2
	All Causes	3,196	4,820.1

¹ Subtotals by sex and race do not add to the grand total as the race was not stated on records for 32 males and 15 females. In addition, the sex was not stated on 2 other than white persons. Age groups do not add to respective totals because records with age not stated are included only in the total.

² Rates may not agree with those shown elsewhere in this section since records of unknown sex and race were randomly allocated prior to rate calculation for the other tables, and were not included in calculations for this table.

³ Rate per 100,000 population.

⁴ 1990 Census population is used to calculate 1992 rates.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

COMMUNICABLE DISEASE DEATHS

Although comprising a smaller proportion of deaths than they have in the past, communicable disease deaths continue to be a public health concern. In 1992, deaths from all infectious and parasitic diseases numbered 1,512 (Table 2.20). The number of deaths due to septicemia increased from 555 deaths in 1991 to 622 deaths in 1992, but the percentage of communicable disease deaths due to septicemia decreased from 42.4 percent in 1991 to 41.1 in 1992.

There were 573 deaths (37.9 percent) attributable to AIDS. This was a 23.2 percent increase in the number of deaths due to AIDS since 1991 when there were 465 deaths. There were 373 and 329 deaths due to AIDS reported in 1990 and 1989, respectively.

Deaths due to such diseases as diphtheria, scarlet fever, streptococcal sore throat, small pox, typhoid fever, measles, poliomyelitis and others have been virtually eliminated not only in Michigan, but across the nation. Table 4.7 illustrates trends in deaths from the major communicable diseases.

Table 2.20
Deaths from Selected Infectious and
Parasitic Diseases
Michigan Residents, 1992

ICD List ¹ Number	Cause of Death	Frequency
038	Septicemia	622
042-044	HTLV-III/LAV Infection (AIDS)	573
070	Viral Hepatitis	55
010-018	Tuberculosis	49
110-118	Mycoses	47
135	Sarcoidosis	27
136.3	Pneumocystosis	20
046	Slow Virus Infection of Central Nervous System	17
137	Late Effects of Tuberculosis	7
036	Meningococcal Infection	5
040.0	Gas Gangrene	3
052	Chickenpox	3
054	Herpes Simplex	3
053	Herpes Zoster	2
Residual 000-139	All Other Infectious and Parasitic Diseases	79
Total		1,512

¹ Detailed list of the 9th revision of the International Classification of Diseases, WHO.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

YEARS OF POTENTIAL LIFE LOST BELOW AGE 65

Another measure of the impact that causes of death have on a population, the years of potential life lost below age 65, is used by the National Centers for Disease Control. The number of years of potential life lost is calculated as the number of years between the age at death and 65 years of age for persons dying before their 65th year.

Table 2.21 includes the years of potential life lost to the Michigan population in 1992 for the ten leading causes of death and selected other causes, as well as the rankings of these causes based on years of potential life lost for the United States.

The ranking of the leading causes of years of potential life lost was different from the ranking of numbers of deaths presented in Table 2.14. Diseases of the heart was the

leading cause of death but was the fourth leading cause of years of potential life lost below age 65. Malignant neoplasms, with 70,958 total years lost in Michigan, was the leading cause of years of potential life lost below age 65 in Michigan but was the second leading cause of death. Accidents and adverse effects, which was the fifth leading cause of death, was the second leading cause of years of potential life lost. Chronic obstructive pulmonary disease, diabetes mellitus and pneumonia and influenza which were among the ten leading causes of death, were not among the ten leading causes of years of potential life lost below age 65.

Rankings of the leading causes of potential life lost were reasonably similar for Michigan and the United States with the exception of AIDS. For Michigan, AIDS was the 8th leading cause of years of potential life lost and 5th in the United States, up from 9th and 6th respectfully in 1991.

Table 2.21
Years of Potential Life Lost Below Age 65
Due to the Ten Leading Causes of Death and Selected Other Causes
Michigan Residents, 1992

Rank	Cause of Death	Years of Potential Life Lost			U.S. ² Rank
		Total ¹	Male	Female	
1	Malignant Neoplasms	70,958	36,188	34,770	2
2	Accidents and Adverse Effects	63,140	45,379	17,761	1
3	Homicide/Suicide	59,972	48,311	11,661	3
4	Diseases of the Heart	52,070	37,079	14,991	4
5	Prematurity ³	25,463	14,312	11,087	7
6	Congenital Anomalies	20,980	11,595	9,321	6
7	Sudden Infant Death Syndrome	15,731	10,385	5,346	8
8	HTLV-III/LAV Infection(AIDS)	15,066	13,274	1,792	5
9	Chronic Liver Disease and Cirrhosis	9,814	6,764	3,050	10
10	Cerebrovascular Diseases	9,226	4,911	4,315	9
11	Diabetes Mellitus	6,432	3,827	2,605	12
12	Pneumonia and Influenza	6,252	3,397	2,855	11
13	Chronic Obstructive Pulmonary Diseases and Allied Conditions	4,799	2,662	2,137	13
	All Other	84,022	48,160	35,862	

¹ Total includes data for individuals with sex unspecified.

² U.S. rankings based on a 10 percent sample of provisional data.

³ Codes 765 and 769, detailed list of the 9th revision of the International Classification of Diseases, WHO.

INFANT DEATHS

Trends Of the 78,916 deaths occurring to Michigan residents in 1992, 1,460 occurred to individuals less than one year of age. The rate of death for infants under the age of one year has dropped considerably since 1900. In that year there were 157.1 infant deaths for every 1,000 live births. This means that about 16 of every 100 infants did not survive their first year (Figure 2.7). This rate fell below 100 by 1914 (96.8), to less than 70 by 1927 (67.7), and to less than 50 by 1935 (47.7). During the 1940's the Michigan infant death rate declined from 40.6 in 1940 to 28.9 in 1949.

Relative declines in the infant death rate slowed considerably in the 1950's and 1960's. It was not until 1971 that the rate dropped below 20 to 19.5. The rate of decline between 1970 and 1980 compares favorably with the rate of decline observed before 1950. Between 1980 and 1992 the rate fluctuated, slowly declining from 12.8 to 10.2 in 1992 (Table 2.22).

Michigan and United States Comparison During the period 1915-1928, the rate for Michigan was above that for the United States 9 of 14 years. From 1929 through 1969, Michigan's infant death rate was consistently

Table 2.22
Infant Deaths and Infant Death Rates
Michigan and United States Residents
Selected Years, 1950 - 1992

United States		Year	Michigan	
Number	Rate		Number	Rate
103,825	28.6	1950	4,230	26.4
110,873	26.0	1960	4,704	24.1
74,667	20.0	1970	3,492	20.3
45,526	12.6	1980	1,851	12.8
40,030	10.6	1985	1,575	11.4
38,891	10.4	1986	1,565	11.4
38,408	10.1	1987	1,538	10.9
38,910	10.0	1988	1,542	11.0
39,655	9.8	1989	1,645	11.1
38,351	9.2	1990	1,638	10.7
36,766	8.9	1991	1,554	10.4
34,400Pr.	8.5Pr.	1992	1,460	10.2

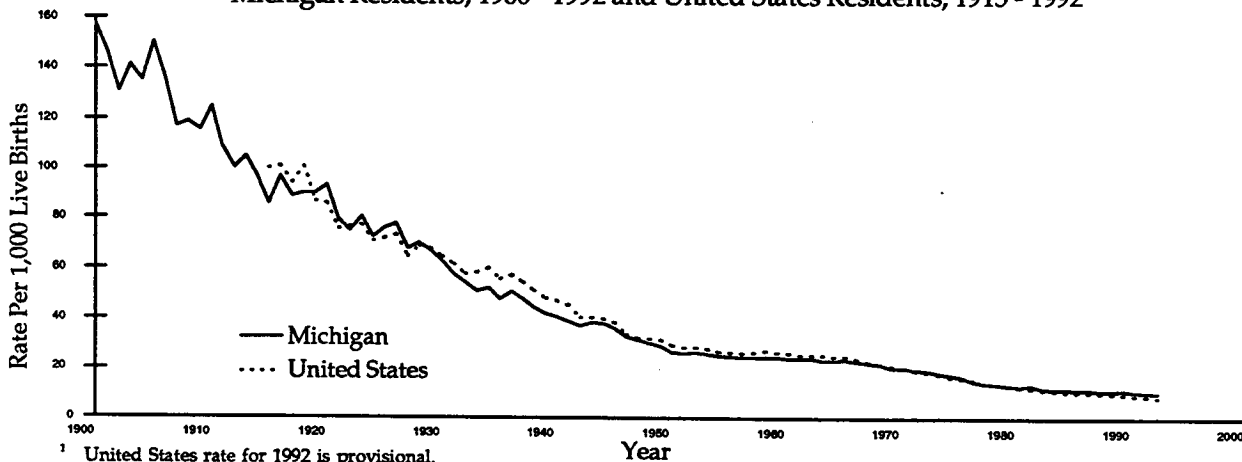
Source: Office of the State Registrar and Division for Health Statistics, MDPH

below the national statistic. From 1970 through 1975 the infant mortality rate in Michigan was slightly higher than the rate for the nation. From 1976 through 1980 the rates for the state and nation were similar. Since 1980 the rate for Michigan has been 5 to 17 percent above the national rate. The provisional rate for the United States in 1992

Figure 2.7

Infant Mortality Rates

Michigan Residents, 1900 - 1992 and United States Residents, 1915 - 1992¹



¹ United States rate for 1992 is provisional.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

was 8.5 infant deaths per 1,000 live births. The Michigan rate of 10.2 was 20.0 percent higher than the national provisional rate in 1992 (Table 2.21).

Early Infant Deaths Table 2.23 shows the numbers of infant deaths and infant death rates by age at death for the period 1970-1992. The number of infants who died during the first week of life in 1992 (821) is greater than

the number of deaths of infants aged 7-364 days (639). In 1992, 65.9 percent of all infant deaths occurred within the first four weeks of life and 44.4 percent occurred in the first day.

A review of Table 2.23 reveals that the 20.3 percent decline in the infant mortality rate since 1980 stems largely from reductions in the rate of death for those under 1 day and between 1 and 6 days of age.

Table 2.23
Infant Deaths and Infant Death Rates by Age at Death
 Michigan Residents, Selected Years, 1970 - 1992

Year	Age at Death									
	Total Infant Death		<1 Day		1-6 Days		7-27 Days		28-364 Days	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
1970	3,492	20.3	1,367	8.0	1,095	6.4	221	1.3	809	4.7
1975	2,205	16.5	856	6.4	461	3.4	246	1.8	642	4.8
1980	1,851	12.8	790	5.4	310	2.1	184	1.3	567	3.9
1985	1,575	11.4	697	5.1	217	1.6	157	1.1	504	3.7
1986	1,565	11.4	680	4.9	237	1.7	162	1.2	486	3.5
1987	1,538	10.9	660	4.7	217	1.5	152	1.1	509	3.6
1988	1,542	11.0	685	4.9	213	1.5	170	1.2	474	3.4
1989	1,645	11.1	703	4.7	208	1.4	159	1.1	575	3.9
1990	1,638	10.7	673	4.4	219	1.4	181	1.2	565	3.7
1991	1,554	10.4	663	4.4	182	1.2	158	1.1	551	3.7
1992	1,460	10.2	648	4.5	173	1.2	141	1.0	498	3.5

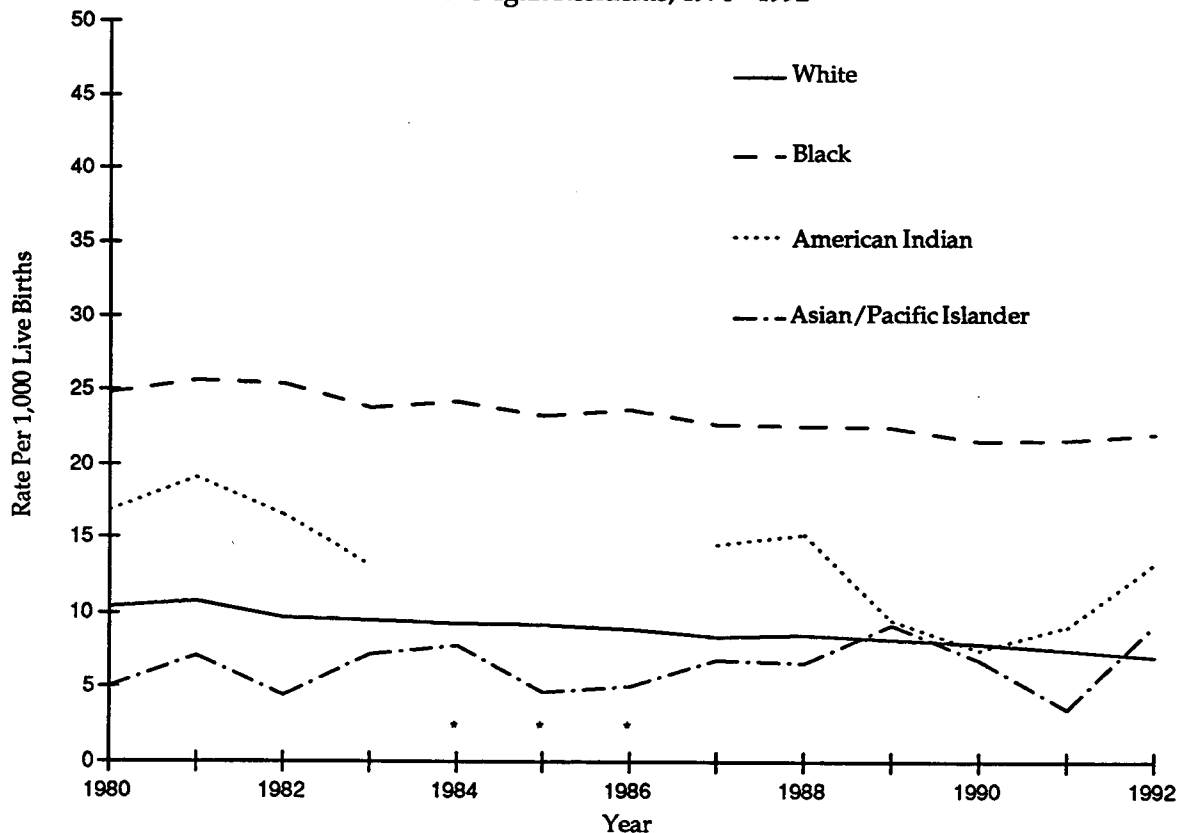
Source: Office of the State Registrar and Division for Health Statistics, MDPH

Trends in Infant Deaths by Race Infant death rates for white, black, American Indians and Asian and Pacific Islanders are graphically displayed in Figure 2.8. The rates used in this graph were calculated using the race of the mother for live births.

Black infant death rates were higher than rates for the other racial groups throughout the period. Where American Indian infant death rates could be calculated, they were higher than rates for white infants. Asian and Pacific Islander infant mortality rates were usually lower than rates for white infants.

The white infant mortality rate dropped 62.2 percent between 1970 and 1992, while for black infants the decline was 27.8 percent. The rate for black infants of 30.6 in 1970 was 65.4 percent higher than that for white infants (18.5). By 1992 the mortality rate for black infants (22.1) was 3.2 times higher than the rate for white infants (7.0) due to the slower decline in the mortality rates experienced by black infants than white infants during the twenty-three years.

Figure 2.8
Infant Death Rates by Race
 Michigan Residents, 1970 - 1992



Source: Office of the State Registrar and Division for Health Statistics, MDPH

Infant Death Rates In Table 2.24 infant, hebdomadal, fetal and perinatal deaths are presented by race and ancestry. The infant mortality rates for American Indian infants and infants of Hispanic and Arab ancestry were 90.0, 27.1 and 21.4 percent higher than the rate for white infants.

Hebdomadal Death Rates The death rate during the first week of life was 3.6 times higher for black infants than white infants. It was somewhat higher for Hispanic and Arab infants than white infants.

Fetal Death Rates The fetal death rates were slightly higher for births to black

mothers than white mothers. Fetal death rates were lowest for births to Arab and Hispanic mothers, while the rate for births to American Indian mothers was over twice the rate for births to white mothers.

Perinatal Death Rates Perinatal deaths are fetal deaths plus hebdomadal deaths. Perinatal death rates were 2.2 and 1.7 times higher for fetuses and infants born to black and American Indian mothers, respectively, than white mothers. Perinatal death rates were lowest for fetuses and infants born to Hispanic mothers.

Table 2.24
Infant, Hebdomadal, Fetal and Perinatal Death Rates¹ by Race and Ancestry
 Michigan Residents, 1992

Race/Ancestry	Live ² Births	Infant Deaths		Hebdomadal Deaths ³		Fetal Deaths		Perinatal Deaths	
		Number ⁴	Rate	Number ⁴	Rate	Number ⁵	Rate	Number ⁶	Rate
All Races	143,827	1,460	10.2	821	5.7	755	5.2	1,576	10.9
White	111,458	781	7.0	414	3.7	548	4.9	962	8.6
Black	29,656	656	22.1	396	13.4	173	5.8	569	19.1
American Indian	750	10	13.3	3	*	8	10.6	11	14.5
Asian/Pacific Islander	1,416	3	*	3	*	10	7.0	13	9.1
Other Non-White	57	1	*	1	*	-	-	1	*
Unknown	490	9	18.4	4	*	16	31.6	20	39.5
Arab	2,346	20	8.5	12	5.1	11	4.7	23	9.8
Hispanic	4,293	38	8.9	17	4.0	16	3.7	33	7.7

¹ Rates calculated using live births by race/ancestry of mother as denominator.

² Mother's race/ancestry on birth certificate.

³ Death at age zero to six days.

⁴ Infants race/ancestry on death certificate.

⁵ Mother's race/ancestry on fetal death certificate.

⁶ Mother's race/ancestry on fetal death certificate, infant's race/ancestry on death certificate.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Causes of Infant Deaths Michigan resident infant deaths in 1992 are listed by cause of death classification and age at death in Tables 2.25-2.27. Disorders relating to short gestation and unspecified low birth weight was listed as the cause of 283 deaths and was the specific disease category most frequently reported. Congenital anomalies caused the death of 248 infants, while sudden infant death syndrome was responsible for 243 infant deaths in 1992. Over half of all infant deaths were attributed to these three conditions in 1992.

Causes of Death in First Day of Life For those infant deaths which occurred during the first day of life, over half were attributed to disorders relating to short gestation and unspecified low birthweight, respiratory distress syndrome or other respiratory conditions of newborn. About 1 in 6 deaths in the first day of life were due to congenital anomalies.

Causes of Neonatal Deaths The leading causes of death between 1 to 27 days of life were congenital anomalies and respiratory distress syndrome.

Causes of Postneonatal Deaths Sudden infant death syndrome was reported as the cause of one half of the deaths to infants from 1-5 months of age and was the leading cause from 6-11 months of age. Congenital anomalies was the second leading cause during these time periods.

Causes of Death by Race Disorders related to short gestation, respiratory distress syndrome and other respiratory conditions of the newborn were the causes of death for 42.8 percent of the black infants but only 25.5 percent of the white infants (Table 2.26). The rate of infant deaths due to congenital anomalies for black infants was 18.3 percent higher than the rate for white infants.

Causes of Death for Male and Female Infants The death rate for male infants was 30.2 percent greater than that for female infants (Table 2.27). The death rate for males due to sudden infant death syndrome was 88.1 percent greater than rates for females. Death rates due to accidents were higher for female infants, but deaths due to other tabulated causes were higher for male infants.

Table 2.25
Infant Deaths by Age at Death and Underlying Cause
Michigan Residents, 1992

ICD - 9 CODE	Cause of Death	Age at Death					
		Total <1 Year	<1 Day	1-6 Days	7-27 Days	1-5 Months	6-11 Months
765	Disorders relating to short gestation and unspecified low birthweight	283	264	8	2	9	-
740-759	Congenital anomalies	248	103	48	33	46	18
798.0	Sudden infant death syndrome	243	-	2	12	210	19
769	Respiratory distress syndrome	110	46	40	18	5	1
770	Other respiratory conditions of newborn	88	38	13	15	18	4
E800-949	Accidents and adverse effects	29	-	-	3	14	12
E960-969	Homicide	13	1	-	1	6	5
Residual	All other causes	446	196	62	57	112	19
Total		1,460	648	173	141	420	78

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 2.26
Infant Deaths and Infant Death Rates by Race¹ and Underlying Cause
Michigan Residents, 1992

ICD - 9 Code	Cause of Death	Race							
		Total ²		White		Black		All Other	
		Number	Rate ³	Number	Rate ³	Number	Rate ³	Number	Rate ³
765	Disorders relating to short gestation and unspecified low birthweight	283	196.8	93	83.4	189	637.3	1	*
740-759	Congenital anomalies	248	172.4	181	162.4	57	192.2	10	449.8
798.0	Sudden infant death syndrome	243	169.0	149	133.7	88	296.7	6	269.9
769	Respiratory distress syndrome	110	76.5	62	55.6	48	161.9	-	-
770	Other respiratory conditions of newborn	88	61.2	44	39.5	44	148.4	-	-
E800-949	Accidents and adverse effects	29	20.2	23	20.6	6	20.2	-	-
E960-969	Homicide	13	9.0	5	*	8	27.0	-	-
Residual	All other causes	446	310.1	224	201.0	216	728.4	6	269.9
Total		1,460	1,015.1	781	700.7	656	2,212.0	23	1,034.6

¹ Numbers of infant deaths are by race of infant; rates are calculated using live births by race of mother as denominator.

² Records with race not stated are included only in total columns.

³ Rates per 100,000 live births.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 2.27
Infant Deaths and Infant Death Rates by Sex of Infant and Underlying Cause
Michigan Residents, 1992

ICD - 9 CODE	Cause of Death	Sex of Infant					
		Total ¹		Male		Female	
		Number	Rate ²	Number	Rate ²	Number	Rate ²
765	Disorders relating to short gestation and unspecified low birthweight	283	196.8	159	208.3	123	168.2
740-759	Congenital anomalies	248	172.4	133	174.2	114	155.9
798.0	Sudden infant death syndrome	243	169.0	161	210.9	82	112.1
769	Respiratory distress syndrome	110	76.5	62	81.2	48	65.6
770	Other respiratory conditions of newborn	88	61.2	55	72.0	33	45.1
E800-949	Accidents and adverse effects	29	20.2	13	17.0	16	21.9
E960-969	Homicide	13	9.0	8	10.5	5	*
Residual	All other causes	446	310.1	249	326.2	197	269.4
Total		1,460	1,015.1	840	1,100.4	618	845.0

¹ Records with sex not stated are included only in total columns.

² Rates per 100,000 live births.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Infant Deaths by Birth Characteristics In previous years infant deaths were characterized for infants born in a particular year. However, since infants born in a particular year, such as 1992, may experience death in either 1992 or 1993, data reported this way were reported a year later than other data in this publication series. For example, the infant deaths for the 1990 birth cohort appeared in the 1991 Michigan Health Statistics report. This year infant deaths will be characterized for infants dying in 1992. They may have been born in 1991 or 1992. The birth information is obtained from their birth certificate. The rates are calculated using birth characteristics of 1992 live births and 1992 infant deaths.

Infant Deaths by Mothers Age Infant deaths displayed a parabolic relationship with mother's age for infants born to white mothers in 1992. The rates were lower for infants born to white mothers 20 to 39 years of age, than for infants born to white mothers under 20 and over 39 years of age. The mortality rates for infants born to black mothers between 15 and 39 years of age were lower than the rates for infants born to black mothers less than 15 or over 39 years of age. Rates for infants born to black mothers age 15 to 19 were slightly lower than the rates for infants born to black mothers age 20-24. Rates for black infants were significantly above those for the white group in all categories with a sufficient number of events to calculate rates.

Table 2.28
Infant Deaths, Live Births and Infant Death Rates by Age and Race^{1,2} of Mother
 Michigan Residents, 1992

Age of Mother in Years	All Races			White			Black			All Other Races		
	Infant Deaths	Live Births	Infant Death Rate	Infant Deaths	Live Births	Infant Death Rate	Infant Deaths	Live Births	Infant Death Rate	Infant Deaths	Live Births	Infant Death Rate
All Ages	1,460	143,827	10.2	781	111,458	7.0	656	29,656	22.1	23	2,223	10.3
< 15	12	373	32.2	3	116	*	9	250	36.0	-	3	-
15-19	246	18,341	13.4	91	10,689	8.5	151	7,379	20.5	4	234	*
20-24	428	37,446	11.4	199	27,108	7.3	225	9,743	23.1	4	520	*
25-29	364	43,246	8.4	227	35,995	6.3	128	6,391	20.0	9	701	12.8
30-39	372	42,695	8.7	241	36,181	6.7	126	5,602	22.5	5	519	*
40 +	22	1,664	13.2	14	1,324	10.6	7	279	25.1	1	243	*
Not Stated	16	62	258.1	6	45	133.3	10	12	833.3	-	3	-

¹ Race not stated included in total columns only.

² Numbers of infant deaths are by race of infant; rates are calculated using live births by race of mother as denominator.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Infant Deaths by Adequacy of Prenatal Care Infant death rates increased when the mother received less adequate prenatal care as measured by the Kessner Index (Table 2.29). The infant death rate was 3.6 times greater for mothers with inadequate care (25.9 deaths per 1,000 live births) than for mothers with adequate care (7.2 deaths per 1,000 live births) in 1992.

The pattern was similar for both white and black infants. When the mother received adequate care based on the number of visits, the month prenatal care began and the length of gestation, the infant death rate for black infants (16.0) was still 2.9 times greater than for infants born to white mothers (5.6 deaths per 1,000 live births).

Table 2.29
**Infant Deaths, Live Births and Infant Death Rates
 by Level of Prenatal Care and Race^{1,2}**
 Michigan Residents, 1992

Level of Care (Kessner Index ³)	All Races			White			Black			All Other Races		
	Infant Deaths	Live Births	Infant Death Rate	Infant Deaths	Live Births	Infant Death Rate	Infant Deaths	Live Births	Infant Death Rate	Infant Deaths	Live Births	Infant Death Rate
Total	1,460	143,827	10.2	781	111,458	7.0	656	29,656	22.1	23	2,223	10.3
Adequate	761	105,150	7.2	489	87,103	5.6	260	16,251	16.0	12	1,521	7.9
Intermediate	333	24,788	13.4	151	16,676	9.1	177	7,572	23.4	5	466	*
Inadequate	344	13,301	25.9	130	7,266	17.9	208	5,682	36.6	6	224	26.8
Unknown	22	588	37.4	11	413	26.6	11	151	*	-	12	-

¹ Race not stated included in total columns only.

² Numbers of infant deaths are by race of infant; rates are calculated using live births by race of mother as denominator.

³ The Kessner Index is a classification of prenatal care based on the month of pregnancy in which prenatal care began, the number of prenatal visits and the length of pregnancy (i.e., for shorter pregnancies, fewer prenatal visits constitute adequate care).

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Infant Deaths by Birth Weight Infant death rates by race, birth weight and age at death are displayed in Table 2.30. While the overall infant death rate for black infants was 3.2 times that of white infants, the rates for black and white infants born weighing less than 750 grams were the same, (about 3 deaths out of every 4 births). The rates for black infants weighing 750-1,499 and 1,500 to 2,499 grams were lower than the rate for their white counterparts. For infants weighing 2,500 grams or more the rate for black infants was

2.2 times the rate for white infants. A large part of the difference between infant death rates for white and black infants was due to the fact that a greater proportion of the infants born to black mothers were born at weights below 2,500 grams (14.9 percent for infants born to black mothers compared to 5.6 percent for infants born to white mothers).

Differentials in death rates by race for deaths under 28 days (neonatal deaths) and from 28-364 days (postneonatal deaths)

Table 2.30
Live Births, Infant Deaths and Infant Death Rates
by Birth Weight, Age at Death and Race^{1,2}
Michigan Residents, 1992

Birth Weight	Race of Infant	Live Births	Age at Death					
			Under 1 Year		Under 28 Days		28-364 Days	
			Number	Rate	Number	Rate	Number	Rate
Total	All Races	143,827	1,460	10.2	962	6.7	498	3.5
	White	111,458	781	7.0	497	4.5	284	2.5
	Black	29,656	656	22.1	452	15.2	204	6.9
	All Other	2,223	23	10.3	13	5.8	10	4.5
Less Than 750 Grams	All Races	817	603	738.1	567	694.0	36	44.1
	White	380	260	684.2	252	663.2	8	21.1
	Black	424	334	787.7	306	721.7	28	66.0
	All Other	11	9	818.2	9	818.2	-	-
750-1,499 Grams	All Races	1,381	166	120.2	121	87.6	45	32.6
	White	758	95	125.3	78	102.9	17	22.4
	Black	601	70	116.5	42	69.9	28	46.6
	All Other	17	1	*	1	*	-	-
1,500-2,499 Grams	All Races	8,631	203	23.5	110	12.7	93	10.8
	White	5,103	120	23.5	74	14.5	46	9.0
	Black	3,398	77	22.7	33	9.7	44	12.9
	All Other	106	6	56.6	3	*	3	*
2,500 Grams Or Greater	All Races	132,779	457	3.4	135	1.0	322	2.4
	White	105,057	296	2.8	84	0.8	212	2.0
	Black	25,182	154	6.1	51	2.0	103	4.1
	All Other	2,086	7	3.4	-	-	7	3.4
Unknown Birthweight	All Races	219	31	141.6	29	132.4	2	*
	White	160	10	62.5	9	56.3	1	*
	Black	51	21	411.8	20	392.2	1	*
	All Other	3	-	-	-	-	-	-

¹ Race not stated included in total rows only.

² Numbers of infant deaths are by race of infant; rates are calculated using live births by race of mother as denominator.

departed somewhat from the pattern noted for all infant deaths. For infants weighing 750-1,499 grams, the neonatal rates for black infants were lower than for white infants. The postneonatal rate for these black infants was higher than the comparable rate for white infants. The neonatal rate for white infants weighing 1,500-2,499 grams was 49.5 percent greater than the comparable rate for black infants while the postneonatal death rate for black infants in this birth weight category exceeded the comparable rate for white infants by 43.3 percent. For infants weighing 2,500 grams or more at birth, the neonatal and postneonatal rates were about twice as high for black infants than white infants.

Causes of Death by Maternal Smoking Status and Race The infant mortality rate for infants born to white mothers who reportedly

smoked or used tobacco products during their pregnancy was 54.5 percent higher than the rate for infants born to white mothers who reportedly did not smoke during their pregnancy. Similarly, the rate for infants born to black mothers who reportedly smoked was 69.6 percent higher.

Death rates are almost always higher for each cause if the mother smoked during her pregnancy. The rate of death due to disorders related to short gestation were 12.5 percent higher if the white mother smoked and SIDS rates were 3.6 times higher. Infants born to black mothers who smoked, had death rates 55.4 percent higher for deaths due to disorders related to short gestation and 2.3 times higher for deaths due to SIDS than rates for infants born to non-smoking black mothers.

Table 2.31
**Infant Deaths and Infant Death Rates¹ by Race² of Mother
 Smoking Status³ During Pregnancy and Underlying Cause of Death⁴**
 Michigan Residents, 1992

ICD - 9 Code	Cause of Death	All Races ⁵				White				Black			
		Smokers		Non-smokers		Smokers		Non-smokers		Smokers		Non-smokers	
		Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
765	Disorders relating to short gestation and unspecified low birthweight . . .	69	2.3	219	1.9	20	0.8	79	0.9	49	8.7	135	5.6
740-759	Congenital anomalies	65	2.2	195	1.7	48	2.0	141	1.6	15	2.7	51	2.1
798.0	Sudden infant death syndrome . . .	109	3.7	144	1.3	68	2.9	68	0.8	38	6.8	71	3.0
769	Respiratory distress syndrome . . .	27	0.9	125	1.1	15	0.6	70	0.8	12	2.1	54	2.2
770	Other respiratory conditions of newborn	33	1.1	77	0.7	14	0.6	40	0.5	19	3.4	37	1.5
E800-949	Accidents and adverse effects	13	0.4	20	0.2	11	0.5	12	0.1	2	*	8	0.3
E960-969	Homicide	1	*	9	0.1	1	*	4	*	-	-	5	*
Residual	All other causes	136	4.6	331	2.9	66	2.8	179	2.0	69	12.3	148	6.2
Total		453	15.3	1,126	9.9	243	10.3	593	6.8	204	36.3	514	21.4

¹ Rates per 1,000 live births.

² Numbers of infant deaths are by race of infant; rates are calculated using live births by race of mother as denominator.

³ Records with smoking status not stated are included in non-smoker columns

⁴ Records with cause of death pending are included only in the total row.

⁵ Records with race not stated are included only in total columns.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Perinatal Deaths by Maternal Age and Race For total births in 1992, Michigan resident perinatal deaths numbered 1,576 and the perinatal death rate was 10.9 (Table 2.32). As with infant death rates, perinatal death rates vary considerably with race and age of mother. The overall perinatal mortality rate for black fetuses and infants was over 2.2 times the rate for white fetuses and infants.

There was an increased risk of a perinatal death for white mothers under 20 years of age and over 39 years.

Perinatal Deaths by Adequacy of Prenatal Care The perinatal death rates increased for mothers with less than adequate prenatal care (Table 2.33). The death rate was 3.7 times higher for mothers with inadequate care than for mothers with adequate care (28.9 vs. 7.8 deaths per 1,000 total births). The perinatal death rate for fetuses and infants born to black women with adequate care was nearly double the comparable rate for fetuses and infants of white women.

Table 2.32

**Perinatal Deaths, Total Births and Perinatal Death Rates by Age and Race^{1,2} of Mother
Michigan Residents, 1992**

Age of Mother in Years	All Races			White			Black			All Other Infants		
	Perinatal Deaths	Total Births	Perinatal Death Rate	Perinatal Deaths	Total Births	Perinatal Death Rate	Perinatal Deaths	Total Births	Perinatal Death Rate	Perinatal Deaths	Total Births	Perinatal Death Rate
All Ages	1,576	144,582	10.9	962	112,006	8.6	569	29,829	19.1	29	2,241	12.9
< 15	3	374	*	1	116	*	1	250	*	1	4	*
15-19	245	18,450	13.3	116	10,759	10.8	124	7,414	16.7	2	235	*
20-24	393	37,632	10.4	201	27,229	7.4	185	9,803	18.9	6	524	11.5
25-29	397	43,432	9.1	269	36,141	7.4	119	6,426	18.5	7	704	9.9
30-39	463	42,917	10.8	338	36,336	9.3	108	5,626	19.2	13	721	18.0
40 +	25	1,679	14.9	15	1,334	11.2	10	284	35.2	-	50	-
Not Stated	50	98	510.2	22	61	360.7	22	26	846.2	-	3	-

¹ Race not stated included in total columns only.

² Numbers of infant deaths are by race of infant; rates are calculated using live births by race of mother as denominator.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 2.33

**Perinatal Deaths, Total Births and Perinatal Death Rates by Level of Prenatal Care and Race^{1,2} of Mother
Michigan Residents, 1992**

Level of Care (Kessner Index ³)	All Races			White			Black			All Other Races		
	Perinatal Deaths	Total Births	Perinatal Death Rate	Perinatal Deaths	Total Births	Perinatal Death Rate	Perinatal Deaths	Total Births	Perinatal Death Rate	Perinatal Deaths	Total Births	Perinatal Death Rate
Total	1,576	144,582	10.9	962	112,006	8.6	569	29,829	19.1	29	2,241	12.9
Adequate	820	105,548	7.8	582	87,427	6.7	214	16,307	13.1	16	1,531	10.5
Intermediate	335	24,953	13.4	183	16,791	10.9	145	7,617	19.0	6	470	12.8
Inadequate	389	13,478	28.9	182	7,368	24.7	196	5,749	34.1	6	227	26.4
Unknown	32	603	53.1	15	420	35.7	14	156	89.7	1	13	*

¹ Race not stated included in total columns only.

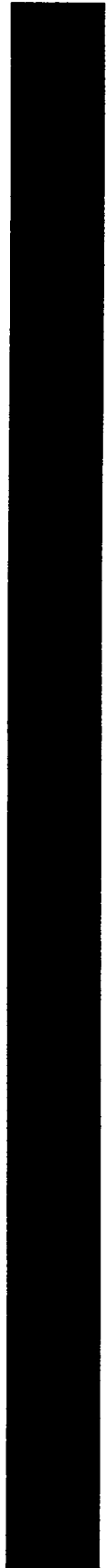
² Numbers of infant deaths are by race of infant; rates are calculated using live births by race of mother as denominator.

³ The Kessner Index is a classification of prenatal care based on the month of pregnancy in which prenatal care began, the number of prenatal visits and the length of pregnancy (i.e., for shorter pregnancies, fewer prenatal visits constitute adequate care).

Source: Office of the State Registrar and Division for Health Statistics, MDPH

MARRIAGE & DIVORCE

SECTION III



MARRIAGE AND DIVORCE

An Overview, 1992

Total Marriages	71,322
Total Divorces and Annulments	40,425
Marriage Rate ¹	15.3
Divorce Rate ¹	8.7
Median Age of the Bride	26
Median Age of the Groom	28
Median Age of Wife at Divorce Decree	34
Median Age of Husband at Divorce Decree	37
Median Duration of Marriage at Divorce Decree	6 Years

¹ Number of persons married or divorced per 1,000 population.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

KEY TRENDS

The number of marriages and divorces occurring in Michigan has increased considerably since 1900. While the frequency of marriage has generally followed the growth of Michigan's population, the rate of persons dissolving their marriages has increased over fourfold since 1900.

The smallest number of marriages in this century was 23,295 in 1900, while the largest number was 94,486 in 1973. In 1992 there were 71,322 marriages, the smallest number since 1963. The marriage rate was 15.3 per 1,000 population, the lowest rate since 1959.

The number of divorces and annulments increased from a low of 2,435 in 1900 to a high of 45,047 in 1980. In 1992 the number of divorces and annulments was 40,425. The divorce rate was 8.7 per 1,000 population.

Table 3.1
Marriages and Marriage Rates¹
 Michigan and United States² Occurrences
 Selected Years, 1900 - 1992

United States		Year	Michigan	
Number	Rate		Number	Rate
709,000	18.6	1900	23,295	19.2
948,000	20.5	1910	29,039	20.7
1,274,476	23.9	1920	50,805	27.7
1,126,856	18.3	1930	29,482	12.2
1,595,879	24.2	1940	46,342	17.6
1,667,231	22.1	1950	58,180	18.3
1,523,000	17.0	1960	61,090	15.6
2,158,802	21.2	1970	91,933	20.7
2,390,252	21.2	1980	86,898	18.8
2,425,000	20.2	1985	79,022	17.4
2,407,099	20.0	1986	77,815	17.0
2,403,378	19.8	1987	74,418	16.2
2,395,926	19.4	1988	75,386	16.3
2,404,000Pr.	19.4Pr.	1989	76,210	16.4
2,448,000Pr.	19.6Pr.	1990	76,099	16.4
2,371,000Pr.	18.8Pr.	1991	72,747	15.7
2,362,000Pr.	18.4Pr.	1992	71,322	15.3

¹ Number of persons married per 1,000 population.

² Beginning with 1978, marriage data for the United States include nonlicensed marriages registered in California. If nonlicensed marriages were included in the 1977 total, the marriage rate would increase from 19.8 to 20.1.

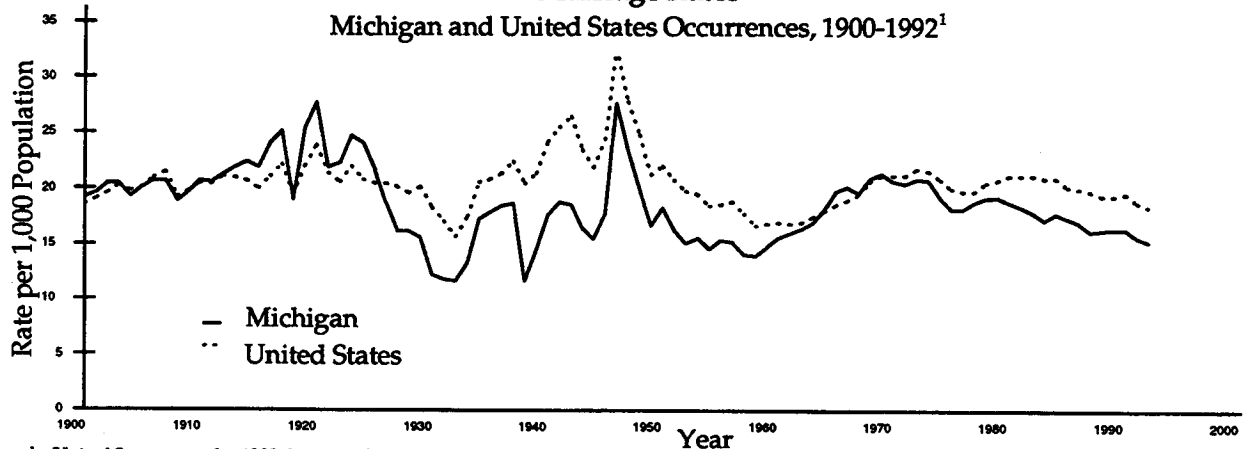
Source: Office of the State Registrar and Division for Health Statistics, MDPH

MARRIAGES

Since 1900 there have been noticeable changes in the marriage rates both nationally and in Michigan (Table 3.1 and Figure 3.1). Both nationally and in Michigan strong historic shifts in rates have been related most notably to the factors of war and the economy. The highest rates observed during this century were for the years immediately following the end of the two World Wars (27.7 in 1920 and 27.6 in 1946). The lowest rates occurred during the Great Depression of the 1930's.

The number of persons married each year per 1,000 population was higher in Michigan than in the country for 19 of the 26 years from 1900 through 1925. Since 1926, Michigan's marriage rate has been lower than the national rate, except during 1964 through 1969.

Figure 3.1
Marriage Rates



¹ United States rates for 1989 through 1991 are provisional.
Source: Office of the State Registrar and Division for Health Statistics, MDPH

RESIDENCE OF COUPLES MARRYING IN MICHIGAN

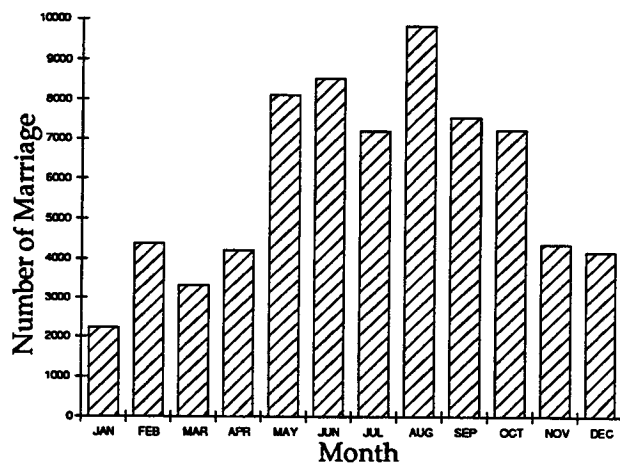
When presenting statistics of births, deaths and fetal deaths it is possible to provide total resident figures due to an interstate agreement for exchange of nonresident event information. Thus, should a Michigan resident give birth in some other state, the state will forward the information to Michigan. No such agreement exists for marriages. This is an important consideration when analyzing marriage statistics. The marriage data presented are drawn from all marriages performed in the state regardless of the couple's residence.

In general, most of the couples marrying in Michigan are residents of the state. For marriages occurring in Michigan in 1992, 95.3 percent of the brides were residents of Michigan, while 93.2 percent of the grooms were residents of the state. These data indicate that the general characteristics of marriages occurring in Michigan should be representative of marriage patterns for Michigan residents.

MONTH OF MARRIAGE

The number of marriages occurring in Michigan varies with the seasons (Figure 3.2). The most popular months for marriages in 1992 were August, June and May, with 9,839, 8,549 and 8,126 marriage ceremonies being performed during these months respectively. About 2 out of every 3 marriages occurred in the six months between May and October. Fewer marriages occurred during the winter months. The lowest figure was for January, with 22.8 percent of the number which occurred in August.

Figure 3.2
Marriages by Month
Michigan Occurrences, 1992



Source: Office of the State Registrar and Division for Health Statistics, MDPH

AGE AT MARRIAGE

Examination of the data in Table 3.2 reveals that females generally marry at a younger age than do males. The number of females who marry before the age of 20 was 2.7 times the corresponding number of males in 1992. Between ages 20 and 24, 28.3 percent more females than males married. Among persons 25 and over, the number of males marrying was greater than females marrying. The median age of brides (26 years) marrying in Michigan was two years lower than the median age for grooms (28 years).

Since 1972, there have been significant declines in the marriage rates for persons of both sexes under the age of 25 years. The largest decline observed was for males under the age of 20 years for whom the marriage rate has dipped 85.5 percent. For individuals between 25 and 44 years of age, the marriage

rate for males and females increased. The rates for persons 45 and over were about the same for males and females during these twenty years.

FIRST MARRIAGES

First marriages are an interesting component of all marriages in that they constitute an event that can never be duplicated. The frequency of first marriages reflects the propensity of the population as a whole to enter into marital agreements.

There has been a decline in the number of first marriages between 1982 and 1992. The number of first marriages dropped 15.2 percent for women and 12.2 percent for men (Tables 3.3 and 3.4).

Table 3.2
Number of Marriages and Marriage Rates¹ by Age and Sex
Michigan Occurrences, 1972, 1982 and 1992

Age in Years	Males				Females			
	1972 Rate	1982 Rate	1992		1972 Rate	1982 Rate	1992	
			Number	Rate			Number	Rate
Under 20 ²	37.2	11.7	1,939	5.4	78.0	31.7	5,239	15.2
20-24	118.6	61.7	17,536	50.0	89.1	66.6	22,494	63.2
25-34	36.3	38.2	31,639	40.9	23.0	29.5	27,610	34.5
35-44	13.2	18.0	12,099	17.6	9.9	12.7	10,609	14.9
45 or Over	6.6	5.8	8,107	6.3	4.3	3.0	5,365	3.4
Total	21.4	17.8	71,322	15.8	20.5	16.9	71,322	14.9
Median Age at Last Birthday	28				26			

¹ Number of persons married per 1,000 population.

² 15-19 population used to obtain rate.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Changes in the frequency of first marriages have varied in different age groups. The greatest decline in first marriages occurred in the under 20 age group for both brides and grooms, between 1982 and 1992. The number of first marriages also declined substantially for brides and grooms in the 20-24 year age group. There were significant increases

in the number of first marriages of both brides and grooms between ages 25 and 44.

Between 1982 and 1992 the percentages of marriages which were first marriages increased for each age groups below 45 years of age.

Table 3.3
Number of Marriages of Brides by Age and Order of Marriage
Michigan Occurrences, 1982 and 1992

Age in Years	1982					1992				
	All Marriages	First Marriages	Percent First Marriages	Second Marriages	Third or More Marriages	All Marriages	First Marriages	Percent First Marriage	Second Marriage	Third or More Marriages
All Ages	80,032	54,765	68.4	19,814	5,453	71,322	46,446	65.1	18,696	6,163
Under 20	14,017	13,884	99.1	126	2	5,239	5,197	99.2	39	-
20-24	31,001	28,100	90.6	2,778	120	22,494	21,153	94.0	1,291	44
25-29	16,126	9,776	60.6	5,575	770	17,496	13,251	75.7	3,868	374
30-34	7,757	2,117	27.3	4,397	1,241	10,114	4,601	45.5	4,538	973
35-39	4,166	488	11.7	2,572	1,104	6,488	1,495	23.0	3,495	1,498
40-44	2,453	166	6.8	1,503	783	4,121	487	11.8	2,306	1,326
45 or Over	4,506	211	4.7	2,861	1,433	5,365	257	4.8	3,159	1,948
Not Stated	6	4	66.7	2	-	-	-	-	-	-
Median Age at Last Birthday	24	22	-	31	37	26	24	-	34	40

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 3.4
Number of Marriages of Grooms by Age and Order of Marriage
Michigan Occurrences, 1982 and 1992

Age in Years	1982					1992				
	All Marriages	First Marriages	Percent First Marriages	Second Marriages	Third or More Marriages	All Marriages	First Marriages	Percent First Marriage	Second Marriage	Third or More Marriages
All Ages	80,032	53,134	66.4	20,994	5,891	71,322	46,641	65.4	18,533	6,139
Under 20	5,323	5,309	99.7	11	1	1,939	1,938	99.9	1	-
20-24	28,514	27,303	95.8	1,177	32	17,536	16,965	96.7	561	7
25-29	19,983	14,887	74.5	4,693	397	19,635	16,886	86.0	2,600	145
30-34	10,075	4,025	40.0	5,014	1,035	12,004	7,183	59.8	4,190	631
35-39	5,748	956	16.6	3,568	1,224	7,307	2,515	34.4	3,715	1,076
40-44	3,268	280	8.6	2,068	920	4,792	743	15.5	2,705	1,344
45 or Over	7,120	374	5.3	4,463	2,281	8,107	410	5.1	4,760	2,936
Not Stated	1	-	0.0	-	1	2	1	50.0	1	-
Median Age at Last Birthday	26	23	-	34	40	28	26	-	37	44

Source: Office of the State Registrar and Division for Health Statistics, MDPH

MEDIAN AGE AT FIRST MARRIAGE

The median age at first marriage declined for both brides and grooms between 1953 and the mid-1960's (Figure 3.3). The initial decline was greater for males than for females.

Grooms were 34 months older than brides at the median in 1953, 23 months older in 1963 and 20 months older in 1968. During the past fifteen years, the median age at first marriage has increased by about the same amount for both males and females. Grooms were 22 months older than brides at the median in 1992.

The median age at first marriage in 1992 was 24 years 3 months for brides and 26 years 1 month for grooms.

REMARRIAGES

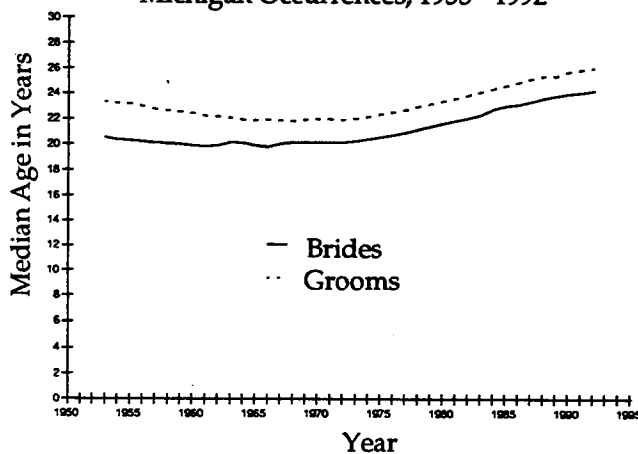
The proportion of all marriages which were remarriages is displayed graphically in Figure 3.4 for the period 1960-1992. Between 1960 and 1965, the proportion of remarriages dropped. Since 1965, this proportion has increased.

The number of remarriages among females decreased by 1.6 percent between 1982 and 1992, while the number of brides who had been married at least three times previously increased by 13.0 percent. Total remarriages for grooms decreased by 8.2 percent, while the number of third or higher order marriages increased (4.2 percent).

The median age at second and later marriages increased between 1982 and 1992 (Tables 3.3 and 3.4).

Figure 3.3

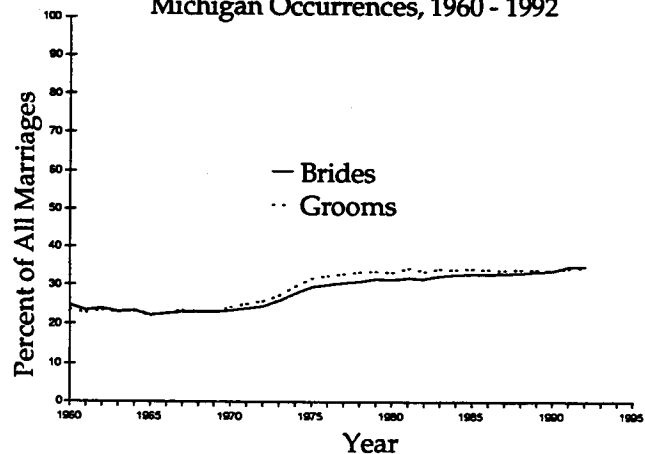
Median Age at First Marriage by Sex
Michigan Occurrences, 1953 - 1992



Source: Office of the State Registrar and Division for Health Statistics, MDPH

Figure 3.4

Percent of All Marriages that are Remarriages
Michigan Occurrences, 1960 - 1992



Source: Office of the State Registrar and Division for Health Statistics, MDPH

DIVORCES AND ANNULMENTS

The number of reported divorces and annulments reached a record high in 1980, in Michigan and in 1981 in the nation (Table 3.5). Between 1980 and 1985, the Michigan frequency declined. The number then increased to 40,425 in 1992. The 1992 frequency was 10.3 percent below the 1980 frequency. Nationally, the provisional number of divorces in 1992 was a record high figure of 1,215,000.

The number of persons divorced in Michigan per thousand population generally increased from 2.0 in 1900 to the then century high of 5.1 in 1929, then declined between 1930 and 1933 to 3.1 (Figure 3.5). Between 1934 and 1946 the rate generally increased, peaking at 10.2 in 1946. The rate of divorces and annulments decreased to 3.6 in 1958 and increased to a high of 9.8 in 1978. It has fluctuated between 8.3 and 8.7 since 1982.

The national rates generally followed the same pattern, reaching a provisional rate of 9.4 in 1992. Michigan's divorce rate was higher than that for the United States each year from 1900 through 1947. In the following 45 years the Michigan divorce rate has been at or below the national rate 38 times, includ-

Table 3.5
Number of Divorces and Annulments
Divorce and Annulment Rates¹
 Michigan and United States Occurrences
 Selected Years, 1900 - 1992

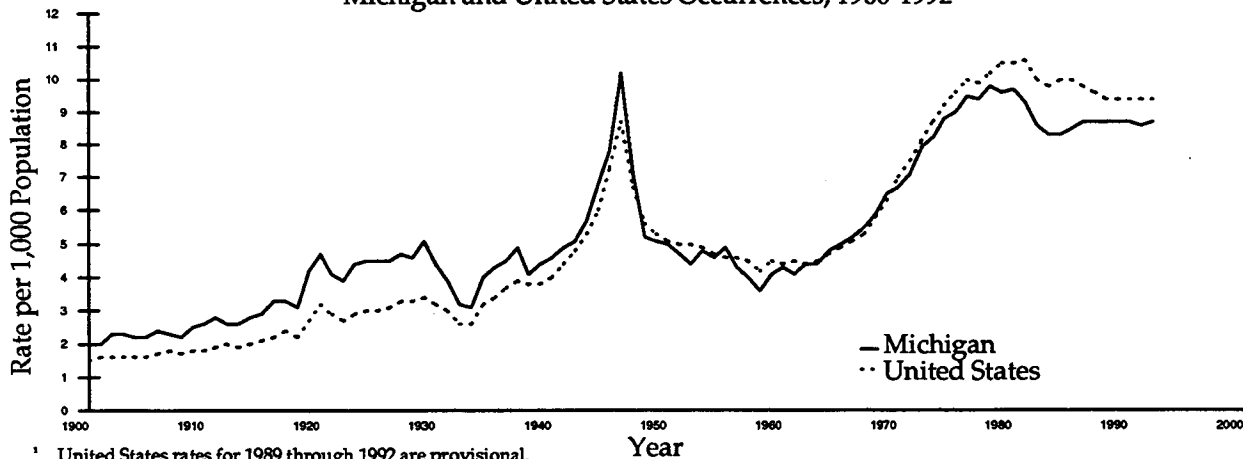
United States		Year	Michigan	
Number	Rate		Number	Rate
56,000	1.5	1900	2,435	2.0
83,000	1.8	1910	3,716	2.6
170,505	3.2	1920	8,679	4.7
195,961	3.2	1930	10,639	4.4
264,000	4.0	1940	12,054	4.6
385,144	5.1	1950	15,979	5.0
393,000	4.4	1960	16,656	4.3
708,000	7.0	1970	29,934	6.7
1,189,000	10.5	1980	45,047	9.7
1,190,000	10.0	1985	38,775	8.5
1,178,000	9.8	1986	39,553	8.7
1,166,000	9.6	1987	39,857	8.7
1,167,000	9.4	1988	40,103	8.7
1,163,000Pr.	9.4Pr.	1989	40,276	8.7
1,175,000Pr.	9.4Pr.	1990	40,568	8.7
1,187,000Pr.	9.4Pr.	1991	40,103	8.6
1,215,000Pr.	9.4Pr.	1992	40,425	8.7

¹ Number of persons whose marriages ended in divorce or annulment per 1,000 population.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

ing each of the past 23 years. The lowest national rate was 1.5 in 1900. The highest national divorce rate during this century was recorded in 1981 (10.6).

Figure 3.5
Divorce Rates
 Michigan and United States Occurrences, 1900-1992¹



¹ United States rates for 1989 through 1992 are provisional.
 Source: Office of the State Registrar and Division for Health Statistics, MDPH

The number of children under 18 of couples dissolving marriages in 1992 was at least 39,579 (Table 3.6). This is 20.1 percent below the peak number of 49,555 in 1976. The number of children affected by divorce as a proportion of all children peaked at 18.2 in 1981 (Table 3.6). It has fluctuated between 14.8 and 16.2 per 1,000 children during the last

ten years. The average number of children per divorce has, nonetheless, dropped from a high of 1.37 children in 1971 to 0.98 in 1992.

Data for the United States indicate a similar pattern.

Table 3.6
Estimated Number of Children Involved in Divorces and Annulments, Average Number of Children Per Decree, and Rate Per 1,000 Children Under 18 Years of Age
Michigan and United States, Selected Years 1960 - 1992

Michigan			Year	United States		
Estimated Number of Children Involved	Average Number of Children Per Decree	Rate Per 1,000 Under 18 Years of Age		Estimated Number of Children Involved	Average Number of Children Per Decree	Rate Per 1,000 Under 18 Years of Age
19,209	1.15	6.5	1960	463,000	1.18	7.2
40,596	1.36	12.5	1970	870,000	1.22	12.5
46,603	1.04	16.9	1980	1,174,000	0.98	17.3
45,461	1.05	18.2	1981	1,180,000	0.97	18.7
41,156	1.04	16.9	1982	1,108,000	0.94	17.6
38,712	1.02	16.2	1983	1,091,000	0.94	17.4
37,629	1.00	14.8	1984	1,081,000	0.92	17.2
38,673	1.00	15.3	1985	1,091,000	0.92	17.3
39,378	1.00	15.7	1986	1,064,000	0.90	16.8
39,321	1.00	14.8	1987	1,038,000	0.89	16.3
39,635	0.99	15.0	1988	1,044,000	0.89	16.4
39,897	0.99	15.2	1989	—	—	—
39,792	0.98	16.0	1990	—	—	—
39,000	0.97	15.7	1991	—	—	—
39,579	0.98	15.9	1992	—	—	—

Source: Office of the State Registrar and Division for Health Statistics, MDPH

REFERENCE APPENDIX
SECTION IV

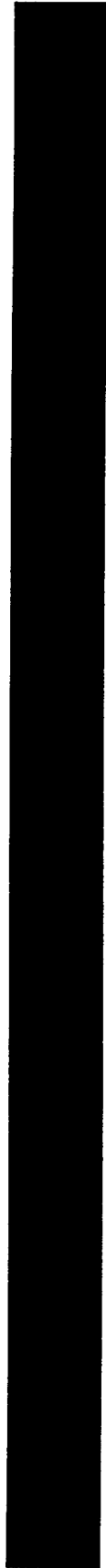
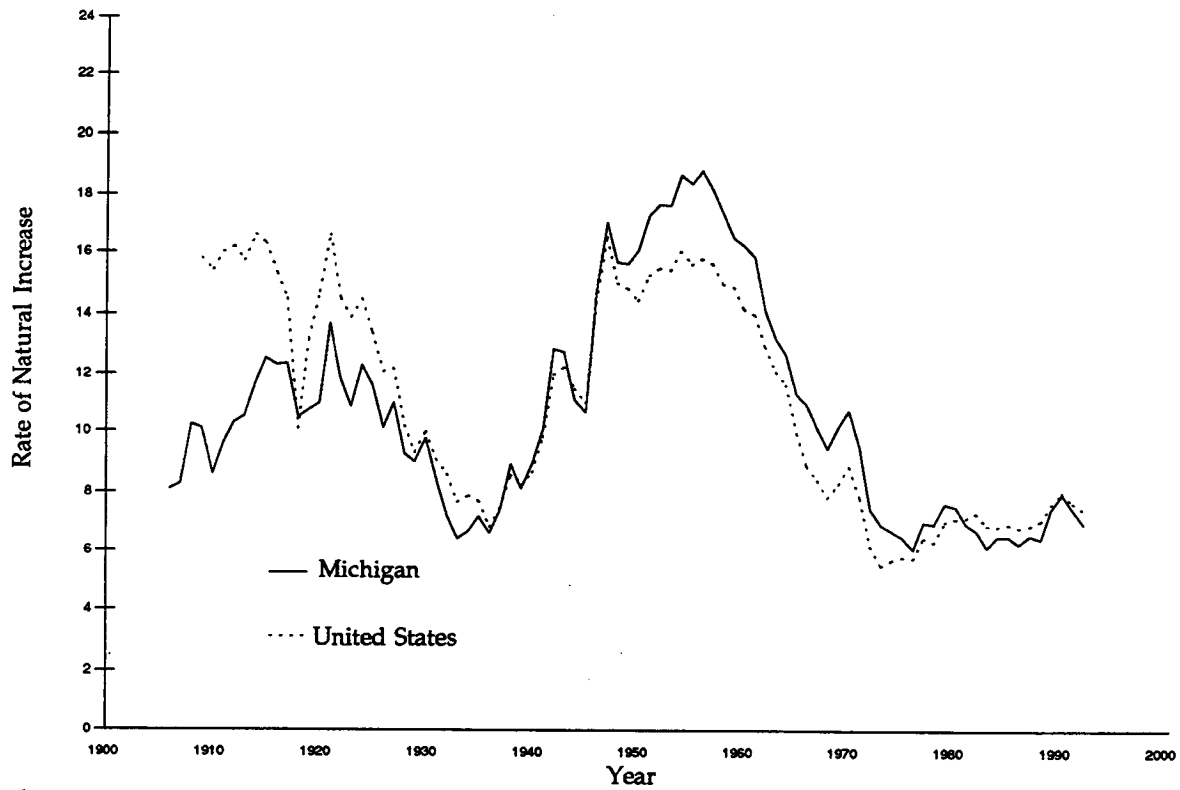


Figure 4.1
Rate of Natural Increase¹
 Michigan, 1906 - 1992 and the United States, 1909 - 1992²



¹ Excess of live births over deaths per 1,000 population.

² Rates for the United States for 1909 - 1932 are based on death rates from the Death Registration States and estimated birth rates for the United States, adjusted for under-registration. For 1933 - 1959 rates are based on registered deaths in the United States and births adjusted for under-registration. After 1959 rates are based on registered births and deaths. 1992 United States data is provisional.

Source: Office of the State Registrar and Division for Health Statistics

Table 4.1
Population¹, Live Births, Deaths (All Ages, Infant, Neonatal, Postneonatal, Perinatal, Fetal and Maternal), Marriages and Divorces
Michigan, 1900 - 1992
(Deaths exclusive of fetal deaths. Perinatal deaths include deaths under 1 week and fetal deaths. Divorces include annulments.)

Year	Population ²	Live Births	Deaths							Marriages	Divorces ⁴
			All Ages	Under 1 Year	Under 28 Days ³	28-364 Days	Perinatal	Fetal	Maternal		
1900	2,420,982	43,699	32,453	6,866				1,325	452	23,295	2,435
1901	2,459,901	43,221	32,834	6,319				1,501	531	24,079	2,448
1902	2,498,820	45,546	31,472	5,949				1,793	468	25,653	2,828
1903	2,537,739	46,020	33,176	6,488				1,814	427	26,029	2,945
1904	2,576,658	47,508	34,494	6,419				1,911	436	24,918	2,808
1905	2,615,578	46,976	34,679	8,054				2,044	416	26,307	2,825
1906	2,654,497	58,599	37,033	7,952				2,358	400	27,519	3,192
1907	2,693,416	59,029	36,701	6,906				2,358	391	27,940	3,107
1908	2,732,335	64,772	36,761	7,697				2,694	440	25,765	3,020
1909	2,771,254	64,323	36,313	7,443				2,540	405	27,353	3,516
1910	2,810,173	64,109	39,913	7,998				2,559	431	29,039	3,716
1911	2,895,997	65,756	38,007	7,131				2,716	451	29,859	4,125
1912	2,981,821	69,537	38,804	6,985				2,906	396	31,694	3,838
1913	3,067,645	73,058	40,827	7,659				2,953	528	33,529	3,978
1914	3,153,469	76,761	39,906	7,431				3,113	507	35,316	4,395
1915	3,239,293	81,100	40,441	6,943				3,357	488	35,527	4,757
1916	3,325,116	87,062	46,047	8,415				3,689	503	40,143	5,540
1917	3,410,940	89,419	47,236	7,916				3,550	586	42,791	5,627
1918	3,496,764	91,261	54,617	8,197				3,686	709	33,260	5,493
1919	3,582,588	84,062	45,636	7,560				3,361	578	45,579	7,469
1920	3,668,412	92,245	51,982	8,587				3,770	795	50,805	8,679
1921	3,785,799	96,035	44,186	7,584				3,669	605	41,508	7,676
1922	3,903,186	90,042	43,817	6,730				3,779	551	43,561	7,591
1923	4,020,573	92,956	49,333	7,477				3,657	583	49,569	8,745
1924	4,137,960	98,187	47,304	7,088				3,703	636	49,788	9,400
1925	4,255,347	98,983	49,417	7,498	4,119	2,969	6,791	3,670	629	46,276	9,650
1926	4,372,734	98,289	54,080	7,620	4,022	3,476	6,667	3,816	631	46,276	9,650
1927	4,490,121	99,940	50,600	6,766	4,054	3,566	6,773	3,834	667	39,788	9,795
1928	4,607,508	97,462	54,755	6,806	3,915	2,851	6,794	3,701	603	36,276	10,617
1929	4,724,895	98,695	56,117	6,605	3,739	3,067	6,594	3,710	617	37,300	10,615
					3,777	2,828	6,613	3,710		36,816	12,094

¹ 1990 Census population is being used to calculate 1992 rates.

² 1971-1979 population estimates have been revised by the U.S. Census Bureau.

³ For years prior to 1950 deaths under 1 month of age are included in deaths under 28 days.

⁴ 1974 divorce data is an estimate.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.1 (continued)
Population¹, Live Births, Deaths (All Ages, Infant, Neonatal, Postneonatal, Perinatal, Fetal and Maternal), Marriages and Divorces
 Michigan, 1900 - 1992
 (Deaths exclusive of fetal deaths. Perinatal deaths include deaths under 1 week and fetal deaths. Divorces include annulments.)

Year	Population ²	Live Births	Deaths								Marriages	Divorces ⁴
			All Ages	Under 1 Year	Under 28 Days ³	28-364 Days	Perinatal	Fetal	Maternal			
1930	4,842,325	98,882	51,561	6,213	3,624	2,589	6,518	3,714	597	29,482	10,639	
1931	4,883,703	90,547	49,068	5,187	3,084	2,103	5,643	3,220	539	28,856	9,507	
1932	4,925,081	85,254	49,569	4,630	2,798	1,832	5,210	2,980	493	28,552	7,889	
1933	4,966,459	80,482	48,507	4,094	2,591	1,503	4,906	2,776	447	33,132	7,671	
1934	5,007,837	83,944	50,440	4,377	2,717	1,660	4,781	2,607	450	43,241	10,124	
1935	5,049,216	87,403	51,051	4,170	2,550	1,620	4,832	2,717	438	45,313	10,844	
1936	5,090,594	88,457	54,777	4,479	2,647	1,832	4,726	2,625	425	47,023	11,419	
1937	5,131,972	91,566	53,468	4,374	2,700	1,674	4,919	2,707	326	47,954	12,472	
1938	5,173,350	96,962	50,678	4,319	2,734	1,585	4,984	2,732	345	30,105	10,646	
1939	5,214,728	94,432	52,017	3,952	2,594	1,358	4,706	2,572	280	37,725	11,589	
1940	5,256,106	99,106	52,092	4,022	2,629	1,393	4,749	2,602	292	46,342	12,054	
1941	5,437,546	107,498	52,671	4,166	2,687	1,479	4,991	2,769	298	50,989	13,317	
1942	5,538,856	124,068	52,738	4,606	3,091	1,515	5,581	3,067	260	51,582	14,085	
1943	5,377,329	125,441	56,774	4,804	2,979	1,825	5,563	3,213	237	44,385	15,259	
1944	5,377,329	113,586	54,016	4,326	2,784	1,542	5,140	2,874	198	41,678	18,356	
1945	5,435,092	111,557	53,641	4,008	2,670	1,338	4,906	2,703	166	48,329	21,133	
1946	5,708,415	138,572	54,856	4,541	3,323	1,218	5,978	3,168	163	78,808	29,158	
1947	6,069,000	160,275	56,807	5,055	3,677	1,378	6,583	3,422	173	71,319	21,386	
1948	6,195,000	153,726	56,520	4,617	3,352	1,265	5,968	3,132	120	61,986	16,017	
1949	6,352,000	156,469	57,107	4,520	3,232	1,288	5,746	2,994	105	53,109	16,274	
1950	6,371,766	160,055	57,567	4,214	3,043	1,171	5,781	3,095	91	58,180	15,979	
1951	6,545,000	172,451	59,181	4,505	3,296	1,209	6,088	3,158	94	53,411	15,446	
1952	6,708,000	177,835	59,138	4,689	3,414	1,275	6,266	3,224	82	50,487	14,925	
1953	6,852,000	182,968	62,087	4,728	3,369	1,339	6,188	3,180	79	53,308	16,537	
1954	7,024,000	192,104	60,706	4,795	3,560	1,235	6,415	3,249	94	51,243	16,281	
1955	7,236,000	196,294	63,087	4,873	3,707	1,166	6,381	3,029	61	55,698	17,676	
1956	7,516,000	206,068	64,352	5,047	3,796	1,251	6,655	3,245	84	57,068	16,228	
1957	7,803,000	208,488	66,435	5,093	3,884	1,209	6,668	3,154	79	55,121	15,442	
1958	7,866,000	202,690	65,899	4,980	3,789	1,191	6,516	3,101	69	55,159	14,040	
1959	7,960,000	198,301	66,812	4,846	3,674	1,172	6,250	2,928	72	58,826	16,168	

¹ 1990 Census population is being used to calculate 1992 rates.

² 1971-1979 population estimates have been revised by the U.S. Census Bureau.

³ For years prior to 1950 deaths under 1 month of age are included in deaths under 28 days.

⁴ 1974 divorce data is an estimate.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.1 (continued)
Population¹, Live Births, Deaths (All Ages, Infant, Neonatal, Postneonatal, Perinatal, Fetal and Maternal), Marriages and Divorces
 Michigan, 1900 - 1992
(Deaths exclusive of fetal deaths. Perinatal deaths include deaths under 1 week and fetal deaths. Divorces include annulments.)

Year	Population ²	Live Births	Deaths						Maternal	Marriages	Divorces ⁴
			All Ages	Under 1 Year	Under 28 Days ³	28-364 Days	Perinatal	Fetal			
1960	7,823,194	195,056	67,912	4,702	3,580	1,122	6,247	3,008	61,090	16,656	
1961	7,903,000	192,825	67,375	4,604	3,475	1,129	5,875	2,735	63,320	16,219	
1962	7,939,000	182,790	70,049	4,367	3,251	1,116	5,669	2,703	65,002	17,500	
1963	8,030,000	178,871	72,438	4,150	3,109	1,041	5,407	2,540	68,160	17,479	
1964	8,100,000	175,103	72,129	4,043	3,071	972	5,293	2,466	73,911	19,400	
1965	8,199,283	166,464	73,665	3,936	2,909	1,027	5,139	2,475	81,247	20,305	
1966	8,314,070	165,794	74,596	3,751	2,830	921	4,909	2,295	83,903	21,727	
1967	8,615,000	162,756	75,360	3,595	2,714	881	4,693	2,195	84,363	23,620	
1968	8,675,000	159,058	76,855	3,438	2,617	821	4,476	2,064	90,984	25,400	
1969	8,734,000	165,760	76,693	3,356	2,550	806	4,488	2,175	93,392	28,347	
1970	8,875,083	171,667	76,321	3,492	2,671	821	4,522	2,060	91,933	29,934	
1971	8,972,000	162,244	77,395	3,157	2,412	745	4,139	1,923	92,134	31,790	
1972	9,025,000	146,854	79,210	2,801	2,115	686	3,700	1,765	94,447	35,505	
1973	9,072,000	141,550	78,522	2,561	1,902	639	3,392	1,632	94,486	37,128	
1974	9,109,000	137,414	76,143	2,387	1,734	653	2,947	1,438	88,023	39,940	
1975	9,108,000	133,931	74,522	2,205	1,563	642	2,673	1,356	82,856	40,782	
1976	9,117,000	131,378	75,801	1,978	1,424	554	2,495	1,264	82,753	43,101	
1977	9,157,000	138,416	74,144	1,945	1,367	578	2,452	1,284	86,088	43,036	
1978	9,202,000	138,802	74,773	1,931	1,281	650	2,302	1,201	88,333	45,029	
1979	9,249,000	144,452	73,480	1,921	1,295	626	2,285	1,175	89,450	44,242	
1980	9,262,078	145,162	74,991	1,851	1,284	567	2,235	1,135	86,898	45,047	
1981	9,270,000	140,579	75,818	1,851	1,281	570	2,151	1,040	85,252	43,167	
1982	9,227,327	137,950	75,536	1,672	1,202	470	1,988	954	82,633	39,739	
1983	9,155,480	133,026	76,639	1,573	1,067	506	1,843	933	78,910	37,991	
1984	9,057,432	135,782	76,401	1,595	1,100	495	1,884	929	80,810	37,563	
1985	9,088,341	138,052	78,635	1,575	1,071	504	1,867	953	79,022	38,775	
1986	9,144,545	137,626	80,177	1,565	1,079	486	1,782	865	77,815	39,553	
1987	9,199,871	140,466	79,795	1,538	1,029	509	1,701	824	74,418	39,857	
1988	9,239,811	139,635	80,075	1,542	1,068	474	1,659	761	75,386	40,103	
1989	9,273,429	148,164	78,566	1,645	1,070	575	1,792	881	76,210	40,276	
1990	9,295,297	153,080	78,501	1,638	1,073	565	1,722	830	76,099	40,568	
1991	9,295,297	149,478	79,738	1,554	1,003	551	1,620	775	72,747	40,103	
1992	9,295,297	143,827	78,916	1,460	962	498	1,576	755	71,322	40,425	

¹ 1990 Census population is being used to calculate 1992 rates.

² 1971-1979 population estimates have been revised by the U.S. Census Bureau.

³ For years prior to 1950 deaths under 1 month of age are included in deaths under 28 days.

⁴ 1974 divorce data is an estimate.

Table 4.2
Live Birth Rates, Death Rates (All Ages, Infant, Neonatal, Postneonatal, Perinatal and Maternal), Fetal Death Ratios, Marriage and Divorce Rates
 Michigan, 1900 - 1992¹

(Birth rate, death rate for all ages, rate of persons married and rate of persons divorced per 1,000 population². Fetal death ratio, mortality rates for deaths under 1 year, under 28 days, and from 28-364 days per 1,000 live births. Maternal mortality rate per 100,000 live births. Perinatal mortality rate per 1,000 live births and fetal deaths.)

Year	Live Births	Deaths							Marriages	Divorces ⁴	
		All Ages	Under 1 Year	Under 28 Days ³	28-364 Days	Perinatal	Fetal	Maternal			
1900	18.1	13.4	157.1					30.3	1,034.3	192	2.0
1901	17.6	13.3	146.2					34.7	1,228.6	196	2.0
1902	18.2	12.6	130.6					39.4	1,027.5	205	2.3
1903	18.1	13.1	141.0					39.4	927.9	205	2.3
1904	18.4	13.4	135.1					40.2	917.7	193	2.2
1905	18.0	13.3	150.2					43.5	885.6	20.1	2.2
1906	22.1	14.0	135.7					40.2	682.6	207	2.4
1907	21.9	13.6	117.0					39.9	662.4	207	2.3
1908	23.7	13.5	118.8					41.6	679.3	189	2.2
1909	23.2	13.1	115.7					39.5	629.6	197	2.5
1910	22.8	14.2	124.8					39.9	672.3	207	2.6
1911	22.7	13.1	108.4					41.3	685.9	206	2.8
1912	23.3	13.0	100.4					41.8	569.5	21.3	2.6
1913	23.8	13.3	104.8					40.4	722.7	21.9	2.6
1914	24.3	12.7	96.8					40.6	660.5	22.4	2.8
1915	25.0	12.5	85.6					41.4	601.7	21.9	2.9
1916	26.2	13.8	96.7					42.4	577.7	24.1	3.3
1917	26.2	13.8	88.5					39.7	655.3	25.1	3.3
1918	26.1	15.6	89.8					40.4	776.9	19.0	3.1
1919	23.5	12.7	89.9					40.0	687.6	25.4	4.2
1920	25.1	14.2	93.1					40.9	861.8	27.7	4.7
1921	25.4	11.7	79.0					38.2	630.0	21.9	4.1
1922	23.1	11.2	74.7					42.0	611.9	22.3	3.9
1923	23.1	12.3	80.4					39.3	627.2	24.7	4.4
1924	23.7	11.4	72.2			41.9	66.7	37.7	647.7	24.1	4.5
1925	23.3	11.6	75.7			40.6	64.9	37.1	635.5	21.7	4.5
1926	22.5	12.4	77.5			41.2	66.3	38.8	642.0	18.7	4.5
1927	22.3	11.3	67.7			39.2	28.5	38.4	667.4	16.2	4.7
1928	21.2	11.9	69.8			38.4	31.5	38.0	618.7	16.2	4.6
1929	20.9	11.9	66.9			38.3	28.7	37.6	625.2	15.6	5.1

¹ 1971-1979 birth, death, marriage and divorce rates have been recalculated using revised population estimates.

² 1990 Census population is used to calculate 1990-1992 rates.

³ For years prior to 1950 deaths under 1 month of age are included in deaths under 28 days.

⁴ 1974 divorce data is an estimate.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.2 (continued)
 Live Birth Rates, Death Rates (All Ages, Infant, Neonatal, Postneonatal, Perinatal and Maternal), Fetal Death Ratios, Marriage and Divorce Rates
 Michigan, 1900 - 1992

(Birth rate, death rate for all ages, rate of persons married and rate of persons divorced per 1,000 population². Fetal death ratio, mortality rates for deaths under 1 year, under 28 days, and from 28-364 days per 1,000 live births. Maternal mortality rate per 1,000 live births. Perinatal mortality rate per 1,000 live births and fetal deaths.)

Year	Live Births	Deaths										Marriages	Divorces ⁴
		All Ages	Under 1 Year	Under 28 Days ³	28-364 Days	Perinatal	Fetal	Maternal					
1930	20.4	10.6	62.8	36.6	26.2	63.5	37.6	603.7	12.2	4.4			
1931	18.5	10.1	57.3	34.1	23.2	60.2	35.6	595.3	11.8	3.9			
1932	17.3	10.1	54.3	32.8	21.5	59.0	35.0	578.3	11.6	3.2			
1933	16.2	9.8	50.9	32.2	18.7	58.9	34.5	555.4	13.3	3.1			
1934	16.8	10.1	52.1	32.4	19.8	55.2	31.1	536.1	17.3	4.0			
1935	17.3	10.1	47.7	29.2	18.5	53.6	31.1	501.1	17.9	4.3			
1936	17.4	10.8	50.6	29.9	20.7	51.9	29.7	480.5	18.5	4.5			
1937	17.8	10.4	47.8	29.5	18.3	52.2	29.6	356.0	18.7	4.9			
1938	18.7	9.8	44.5	28.2	16.3	50.0	28.2	355.8	11.6	4.1			
1939	18.1	10.0	41.8	27.5	14.4	48.5	27.2	296.5	14.5	4.4			
1940	18.9	9.9	40.6	26.5	14.1	46.7	26.3	294.6	17.6	4.6			
1941	19.8	9.7	38.8	25.0	13.8	45.3	25.8	277.2	18.8	4.9			
1942	22.4	9.5	37.1	24.9	12.2	43.9	24.7	209.6	18.6	5.1			
1943	23.3	10.6	38.3	23.7	14.5	43.2	25.6	188.9	16.5	5.7			
1944	21.1	10.0	38.1	24.5	13.6	44.1	25.3	174.3	15.5	6.8			
1945	20.5	9.9	35.9	23.9	12.0	42.9	24.2	148.8	17.8	7.8			
1946	24.3	9.6	32.8	24.0	8.8	42.2	22.9	117.6	27.6	10.2			
1947	26.4	9.4	31.5	22.9	8.6	40.2	21.4	107.9	23.5	7.1			
1948	24.8	9.1	30.0	21.8	8.2	38.0	20.4	78.1	20.0	5.2			
1949	24.6	9.0	28.9	20.7	8.2	36.0	19.1	67.1	16.7	5.1			
1950	25.1	9.0	26.3	19.0	7.3	35.4	19.3	56.9	18.3	5.0			
1951	26.3	9.0	26.1	19.1	7.0	34.7	18.3	54.5	16.3	4.7			
1952	26.5	8.8	26.4	19.2	7.2	34.6	18.1	46.1	15.1	4.4			
1953	26.7	9.1	25.8	18.5	7.3	33.2	17.4	43.2	15.6	4.8			
1954	27.3	8.6	25.0	18.5	6.4	32.8	16.9	48.9	14.6	4.6			
1955	27.1	8.7	24.8	18.9	5.9	32.0	15.4	31.1	15.4	4.9			
1956	27.4	8.6	24.5	18.4	6.1	31.8	15.7	40.8	15.2	4.3			
1957	26.7	8.5	24.4	18.6	5.8	31.5	15.1	37.9	14.1	4.0			
1958	25.8	8.4	24.6	18.7	5.9	31.7	15.3	34.0	14.0	3.6			
1959	24.9	8.4	24.4	18.5	5.9	31.1	14.8	36.3	14.8	4.1			

¹ 1971-1979 birth, death, marriage and divorce rates have been recalculated using revised population estimates.

² 1990 Census population is used to calculate 1990-1992 rates.

³ For years prior to 1950 deaths under 1 month of age are included in deaths under 28 days.

⁴ 1974 divorce data is an estimate.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.2 (continued)
 Live Birth Rates, Death Rates (All Ages, Infant, Neonatal, Postneonatal, Perinatal and Maternal), Fetal Death Ratios, Marriage and Divorce Rates
 Michigan, 1900 - 1992¹

(Birth rate, death rate for all ages, rate of persons married and rate of persons divorced per 1,000 population². Fetal death ratio, mortality rates for deaths under 1 year, under 28 days, and from 28-364 days per 1,000 live births. Maternal mortality rate per 100,000 live births. Perinatal mortality rate per 1,000 live births and fetal deaths.)

Year	Live Births	Deaths										Marriages	Divorces ⁴
		All Ages	Under 1 Year	Under 28 Days ³	28-364 Days	Perinatal	Fetal	Maternal					
1960	24.9	8.7	24.1	18.4	5.8	31.5	15.4	38.5	15.6	4.3			
1961	24.4	8.5	23.9	18.0	5.9	30.0	14.2	40.5	16.0	4.1			
1962	23.0	8.8	23.9	17.8	6.1	30.6	14.8	30.6	16.4	4.4			
1963	22.3	9.0	23.2	17.4	5.8	29.8	14.2	49.7	17.0	4.4			
1964	21.6	8.9	23.1	17.5	5.6	29.8	14.1	35.4	18.2	4.8			
1965	20.3	9.0	23.6	17.5	6.2	30.4	14.9	32.4	19.8	5.0			
1966	19.9	9.0	23.6	17.1	5.6	29.2	13.8	32.6	20.2	5.2			
1967	18.9	8.7	22.1	16.7	5.4	28.4	13.5	31.9	19.6	5.5			
1968	18.3	8.9	21.6	16.5	5.2	27.8	13.0	27.7	21.0	5.9			
1969	19.0	8.8	20.2	15.4	4.9	26.7	13.1	16.3	21.4	6.5			
1970	19.3	8.6	20.3	15.6	4.8	26.0	12.0	16.9	20.7	6.7			
1971	18.1	8.6	19.5	14.9	4.6	25.2	11.9	19.7	20.5	7.1			
1972	16.3	8.8	19.1	14.4	4.7	24.9	12.0	23.8	20.9	7.9			
1973	15.6	8.7	18.1	13.4	4.7	23.7	11.9	18.4	20.8	8.2			
1974	15.1	8.4	17.4	12.6	4.8	21.2	10.5	13.8	19.3	8.8			
1975	14.7	8.2	16.5	11.7	4.8	19.8	10.1	11.9	18.2	9.0			
1976	14.4	8.3	15.1	10.8	4.2	18.8	9.6	10.7	18.2	9.5			
1977	15.1	8.1	14.1	9.9	4.2	17.6	9.3	7.9	18.8	9.4			
1978	15.1	8.1	13.9	9.2	4.7	16.4	8.7	10.8	19.2	9.8			
1979	15.6	7.9	13.3	9.0	4.3	15.7	8.1	7.6	19.3	9.6			
1980	15.7	8.1	12.8	8.8	3.9	15.3	7.8	11.0	18.8	9.7			
1981	15.2	8.2	13.2	9.1	4.1	15.2	7.4	5.0	18.4	9.3			
1982	15.0	8.2	12.1	8.7	3.4	14.3	6.9	8.0	17.9	8.6			
1983	14.5	8.4	11.8	8.0	3.8	13.8	7.0	4.5	17.2	8.3			
1984	15.0	8.4	11.7	8.1	3.6	13.8	6.8	*	17.8	8.3			
1985	15.2	8.7	11.4	7.8	3.7	13.4	6.9	6.5	17.4	8.5			
1986	15.1	8.8	11.4	7.8	3.5	12.9	6.3	8.0	17.0	8.7			
1987	15.3	8.7	10.9	7.3	3.6	12.0	5.7	5.7	16.2	8.7			
1988	15.1	8.7	11.0	7.6	3.4	11.9	5.4	7.9	16.3	8.7			
1989	16.0	8.5	11.1	7.2	3.9	12.0	5.9	8.8	16.4	8.7			
1990	16.5	8.4	10.7	7.0	3.7	11.2	5.4	6.5	16.4	8.7			
1991	16.1	8.6	10.4	6.7	3.7	10.8	5.2	10.7	15.7	8.6			
1992	15.5	8.5	10.2	6.7	3.5	10.9	5.2	10.4	15.3	8.7			

¹ 1971-1979 birth, death, marriage and divorce rates have been recalculated using revised population estimates.

² 1990 Census population is used to calculate 1990-1992 rates.

³ For years prior to 1950 deaths under 1 month of age are included in deaths under 28 days.

⁴ 1974 divorce data is an estimate.

Source: Office of the State Registrar and Division for Health Statistics, MDRH

Table 4.3
Number of Live Births by Age of Mother
Michigan Residents, 1920 - 1992

Year	All Ages ¹	Age of Mother									Age Not Stated
		10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 +		
1920	92,740	34	8,129	26,344	26,251	17,521	10,427	3,523	336	175	
1921	96,322	39	8,747	26,583	27,292	18,433	11,150	3,572	337	169	
1922	90,209	28	8,125	24,575	25,154	17,690	10,584	3,485	343	225	
1923	93,066	37	8,725	25,887	25,459	18,072	10,770	3,476	382	258	
1924	98,025	38	9,877	28,000	25,781	18,707	11,395	3,682	321	224	
1925	99,220	62	10,248	28,116	26,204	18,869	11,406	3,695	379	241	
1926	98,781	76	10,496	28,479	25,876	18,444	11,219	3,568	354	269	
1927	100,178	59	10,685	29,302	25,707	18,790	11,287	3,722	332	294	
1928	97,797	54	10,788	28,895	25,003	17,953	10,913	3,558	315	318	
1929	99,134	56	11,312	30,582	25,557	16,957	10,555	3,523	293	299	
1930	99,325	60	11,476	29,956	25,861	17,125	10,684	3,582	291	290	
1931	90,929	61	10,109	27,255	23,806	15,937	9,905	3,317	302	237	
1932	85,736	62	9,297	25,686	22,608	14,988	9,314	3,250	291	240	
1933	80,923	52	8,642	23,874	21,618	14,298	8,795	3,173	261	210	
1934	83,925	48	9,039	25,458	22,507	14,968	8,391	3,050	259	205	
1935	87,446	47	9,808	27,631	22,938	15,026	8,473	3,029	284	210	
1936	88,427	53	9,764	28,681	23,584	14,814	8,194	2,866	274	197	
1937	91,539	54	10,524	30,532	24,366	15,022	7,949	2,653	242	197	
1938	96,963	64	11,024	32,581	26,116	15,690	8,397	2,698	253	140	
1939	94,302	51	10,368	31,036	26,095	15,976	8,021	2,416	209	130	
1940	99,021	51	10,671	32,960	27,860	16,549	8,146	2,390	202	192	
1941	107,458	50	11,309	36,833	31,067	17,132	8,351	2,361	200	155	
1942	123,886	66	12,721	43,947	36,034	19,367	8,985	2,445	202	119	
1943	125,778	67	11,934	41,627	37,773	21,449	9,980	2,615	184	149	
1944	114,700	76	10,113	36,096	33,654	21,094	10,636	2,714	182	135	
1945	112,655	73	9,294	32,790	33,143	22,831	11,185	2,970	229	140	
1946	139,277	72	10,899	45,999	41,985	25,184	11,811	3,002	223	102	
1947	161,085	91	15,594	55,954	47,793	26,296	12,009	3,073	182	93	
1948	154,730	95	16,245	53,520	45,059	25,268	11,391	2,888	173	91	
1949	157,178	117	16,404	53,608	46,363	25,971	11,565	2,906	181	63	

¹ Total live births for the years 1920 through 1959 differ from figures in Table 4.1 as they are derived from outside sources. Live births by age of mother were not tabulated in Michigan prior to 1960. These data were obtained from the following sources:

- 1920-1923: Unpublished tables from the National Center for Health Statistics.
- 1924-1932: Bureau of the Census publication, Birth, Stillbirth and Infant Mortality Statistics for Birth, Registration Areas of the United States.
- 1933-1936: Unpublished tables from the National Center for Health Statistics.
- 1937-1949: Bureau of the Census publication, Vital Statistics of the United States series.
- 1950-1959: Department of Health Education and Welfare publication, Vital Statistics of the United States series.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.3 (continued)
 Number of Live Births by Age of Mother
 Michigan Residents, 1920 - 1992

Year	All Ages ¹	Age of Mother									Age Not Stated
		10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 +		
1950	160,955	111	16,310	53,442	48,186	27,422	12,392	2,831	169	92	
1951	173,506	104	17,974	57,340	52,044	29,674	13,086	3,040	160	84	
1952	178,634	134	17,206	58,012	54,198	31,756	13,880	3,176	220	52	
1953	182,810	166	18,510	58,070	54,734	32,948	14,798	3,350	190	44	
1954	192,332	208	20,522	60,776	55,962	35,152	15,862	3,598	220	32	
1955	196,623	195	21,417	61,952	56,462	35,968	16,554	3,862	198	15	
1956	206,226	192	22,808	66,332	58,392	36,870	17,282	4,172	164	14	
1957	208,808	190	23,798	67,086	58,424	36,980	17,956	4,160	200	14	
1958	202,900	222	23,034	65,834	55,130	36,278	17,892	4,296	196	18	
1959	198,576	200	21,922	65,426	53,434	34,934	18,030	4,424	198	8	
1960	195,056	186	22,786	65,108	51,842	33,228	17,410	4,288	202	6	
1961	192,825	212	23,891	64,336	50,277	32,456	17,067	4,363	203	20	
1962	182,790	268	22,702	62,243	47,109	29,817	16,160	4,250	224	17	
1963	178,871	210	21,686	62,834	46,063	28,364	15,117	4,359	229	9	
1964	175,103	264	22,526	62,196	44,671	26,542	14,509	4,162	220	13	
1965	166,464	267	24,653	59,439	40,693	23,767	13,528	3,886	211	20	
1966	165,794	310	28,690	60,711	39,225	21,205	11,846	3,547	223	37	
1967	162,756	316	27,267	61,541	40,052	19,840	10,479	3,059	178	24	
1968	159,058	400	26,390	60,072	41,561	18,613	9,095	2,739	163	25	
1969	165,760	421	28,061	63,376	44,615	18,535	8,157	2,433	134	28	
1970	171,667	489	29,764	65,892	46,262	19,003	7,904	2,223	118	12	
1971	162,244	472	28,480	62,367	43,639	18,259	6,975	1,926	112	14	
1972	146,854	503	28,108	54,199	40,442	16,133	5,805	1,555	95	14	
1973	141,550	569	27,808	51,284	39,845	15,520	5,163	1,277	62	22	
1974	137,414	501	25,977	49,975	40,215	15,317	4,291	1,063	50	25	
1975	133,931	463	24,509	48,675	40,061	14,891	4,273	982	54	23	
1976	131,378	404	22,593	47,161	41,412	14,893	4,053	799	47	16	
1977	138,416	426	22,585	49,740	43,346	17,293	4,178	771	51	26	
1978	138,802	345	21,487	49,498	43,744	18,367	4,562	729	50	20	
1979	144,452	355	21,239	51,319	46,084	19,962	4,720	715	41	17	

¹ Total live births for the years 1920 through 1959 differ from figures in Table 4.1 as they are derived from outside sources. Live births by age of mother were not tabulated in Michigan prior to 1960. These data were obtained from the following sources:

1920-1923: Unpublished tables from the National Center for Health Statistics.
 1924-1932: Bureau of the Census publication, Birth, Stillbirth and Infant Mortality Statistics for Birth, Registration Areas of the United States.
 1933-1936: Unpublished tables from the National Center for Health Statistics.
 1937-1949: Bureau of the Census publication, Vital Statistics of the United States series.
 1950-1959: Department of Health Education and Welfare publication, Vital Statistics of the United States series.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.3 (continued)
 Number of Live Births by Age of Mother
 Michigan Residents, 1920 - 1992

Year	All Ages ¹	Age of Mother								Age Not Stated
		10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 +	
1980	145,162	331	20,000	51,218	47,113	21,024	4,692	740	22	22
1981	140,579	300	18,397	47,737	46,527	22,178	4,701	695	34	10
1982	137,950	319	17,344	45,586	45,995	22,564	5,395	711	29	7
1983	133,026	328	16,589	42,034	45,065	22,505	5,669	791	38	7
1984	135,782	341	16,442	41,664	45,908	24,320	6,295	780	30	2
1985	138,052	352	16,279	41,125	47,049	25,491	6,864	851	36	5
1986	137,626	335	16,279	39,611	46,421	26,331	7,503	842	35	12
1987	140,466	329	16,911	39,314	47,052	27,795	8,038	969	46	12
1988	139,635	371	17,003	37,529	45,924	28,469	8,553	1,094	54	638
1989	148,164	396	19,149	39,352	47,853	30,462	9,571	1,207	58	116
1990	153,080	426	20,224	39,992	48,466	32,058	10,421	1,382	40	71
1991	149,478	414	19,325	39,546	45,995	32,025	10,627	1,464	36	46
1992	143,827	373	18,341	37,446	43,246	31,496	11,199	1,604	60	62

¹ Total live births for the years 1920 through 1959 differ from figures in Table 4.1 as they are derived from outside sources. Live births by age of mother were not tabulated in Michigan prior to 1960. These data were obtained from the following sources:

- 1920-1923: Unpublished tables from the National Center for Health Statistics.
- 1924-1932: Bureau of the Census publication, Birth, Stillbirth and Infant Mortality Statistics for Birth, Registration Areas of the United States.
- 1933-1936: Unpublished tables from the National Center for Health Statistics.
- 1937-1949: Bureau of the Census publication, Vital Statistics of the United States series.
- 1950-1959: Department of Health Education and Welfare publication, Vital Statistics of the United States series.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.4
Live Birth Rates¹ by Age of Mother
Michigan Residents, 1920 - 1992

(Live birth rates are per 1,000 women per year. Total fertility rate is total children to 1,000 women in their lifetime assuming constant live birth rates.)

Year	Age of Mother							Total Fertility Rate	
	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44		45+ ²
1920	0.2	55.7	173.1	164.0	124.2	83.8	34.3	3.8	3,195.5
1921	0.2	56.9	167.3	165.5	125.8	84.8	32.8	3.6	3,184.5
1922	0.2	50.8	149.6	149.1	117.3	77.1	30.7	3.5	2,891.5
1923	0.2	52.6	152.6	147.5	116.5	75.4	29.3	3.8	2,889.5
1924	0.2	57.4	160.0	146.1	117.3	76.7	29.9	3.1	2,953.5
1925	0.3	57.4	155.9	145.4	115.2	73.9	28.8	3.5	2,902.0
1926	0.4	56.9	153.3	140.5	109.7	70.1	26.8	3.2	2,804.5
1927	0.3	56.0	153.3	136.8	108.9	68.1	27.0	2.9	2,766.5
1928	0.2	54.8	147.1	130.3	101.5	63.7	25.0	2.6	2,626.0
1929	0.2	55.7	151.5	130.6	93.6	59.6	23.9	2.4	2,587.5
1930	0.3	55.2	145.5	130.2	92.8	58.9	23.7	2.3	2,544.5
1931	0.3	47.8	130.4	118.3	85.3	54.3	21.5	2.3	2,301.0
1932	0.3	43.4	121.5	111.0	79.4	50.8	20.8	2.2	2,148.0
1933	0.2	39.7	111.6	105.2	75.0	47.7	20.0	1.9	2,006.5
1934	0.2	41.0	117.6	108.4	77.8	45.3	18.9	1.8	2,055.0
1935	0.2	43.9	126.2	109.4	77.4	45.5	18.5	2.0	2,115.5
1936	0.2	43.1	129.5	111.4	75.5	43.8	17.3	1.8	2,113.0
1937	0.2	45.9	136.4	113.9	75.9	42.3	15.8	1.6	2,160.0
1938	0.3	47.4	143.9	120.9	78.5	44.4	15.8	1.6	2,264.0
1939	0.2	44.1	135.6	119.6	79.2	42.3	14.0	1.3	2,181.5
1940	0.2	44.9	142.8	126.8	81.5	42.8	13.7	1.2	2,269.5
1941	0.2	48.1	157.8	137.1	81.6	42.5	13.2	1.2	2,408.5
1942	0.3	54.5	186.6	155.3	89.9	44.7	13.4	1.2	2,729.5
1943	0.3	51.6	175.1	159.0	97.1	48.6	14.1	1.1	2,734.5
1944	0.3	44.1	150.5	138.5	93.2	50.6	14.3	1.0	2,462.5
1945	0.3	40.8	133.5	133.4	98.5	52.1	15.4	1.3	2,386.5
1946	0.3	48.3	188.5	165.3	106.2	53.8	15.3	1.2	2,894.5
1947	0.4	69.7	227.3	184.2	108.4	53.6	15.4	1.0	3,300.0
1948	0.4	73.2	215.5	170.0	101.9	49.8	14.2	1.0	3,130.0
1949	0.5	74.6	214.0	171.4	102.5	49.6	14.1	1.0	3,138.5

¹ 1990 Census population is used to calculate 1990-1992 rates.

² Number of live births to women aged 45 and over per 1,000 women 45-49 years of age.

Source: Population figures used for 1920-1970 rates are from General Population Characteristics Michigan, USBC, 1971, with arithmetic extrapolation between census years. For 1971-1988 population source, see Technical Notes.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.4 (continued)
Live Birth Rates¹ by Age of Mother
 Michigan Residents, 1920 - 1992

(Live birth rates are per 1,000 women per year. Total fertility rate is total children to 1,000 women in their lifetime assuming constant live birth rates.)

Year	Age of Mother							Total Fertility Rate	
	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44		45+ ²
1950	0.5	74.6	212.0	175.5	106.5	52.3	13.6	0.9	3,179.5
1951	0.4	79.1	229.0	192.2	114.4	53.9	14.1	0.8	3,419.5
1952	0.5	73.5	233.0	202.5	121.7	56.1	14.4	1.1	3,514.0
1953	0.6	76.8	234.5	207.0	125.5	58.7	14.9	0.9	3,594.5
1954	0.7	82.8	246.8	214.1	133.1	61.8	15.6	1.1	3,780.0
1955	0.6	84.1	253.0	218.6	135.4	63.4	16.4	0.9	3,862.0
1956	0.6	87.2	272.4	228.9	138.0	65.0	17.4	0.8	4,051.5
1957	0.6	88.6	277.1	231.8	137.6	66.4	17.0	0.9	4,100.0
1958	0.6	83.6	273.4	221.5	134.3	65.0	17.2	0.9	3,982.5
1959	0.6	77.6	273.3	217.4	128.6	64.4	17.3	0.9	3,900.5
1960	0.5	79.3	273.1	213.0	121.8	61.4	16.6	0.9	3,833.0
1961	0.6	78.1	252.0	200.7	120.2	61.3	16.8	0.9	3,653.0
1962	0.7	70.7	231.5	183.9	111.4	58.9	16.3	0.9	3,371.5
1963	0.5	64.6	222.5	175.9	107.0	55.9	16.6	0.9	3,219.5
1964	0.6	64.2	210.1	167.0	101.0	54.4	15.8	0.9	3,070.0
1965	0.6	67.4	192.0	149.0	91.2	51.5	14.7	0.8	2,836.0
1966	0.7	75.4	187.9	140.7	82.1	45.8	13.4	0.9	2,734.5
1967	0.7	69.0	182.8	140.8	77.6	41.2	11.5	0.7	2,621.5
1968	0.9	64.3	171.5	143.2	73.4	36.3	10.2	0.6	2,502.0
1969	0.9	66.0	174.2	150.8	73.8	33.1	9.1	0.5	2,542.0
1970	1.0	68.2	176.0	154.0	76.1	32.4	8.3	0.4	2,584.5
1971	1.0	63.7	157.3	142.4	71.2	29.0	7.4	0.4	2,333.0
1972	1.1	61.6	137.4	122.7	60.8	24.2	6.1	0.4	2,071.0
1973	1.2	59.9	128.0	117.3	55.2	21.5	5.1	0.2	1,945.0
1974	1.1	55.3	122.3	113.7	52.4	17.7	4.4	0.2	1,846.5
1975	1.0	52.0	116.8	109.3	49.6	17.5	4.2	0.2	1,771.0
1976	0.9	48.0	111.0	107.5	49.1	16.3	3.4	0.2	1,709.5
1977	1.0	48.4	114.3	112.7	52.9	16.3	3.3	0.2	1,767.0
1978	0.8	46.5	111.5	111.6	54.5	16.8	3.1	0.2	1,739.5
1979	0.9	46.7	114.0	114.9	57.0	16.8	3.0	0.2	1,774.0

¹ 1990 Census population is used to calculate 1990-1992 rates.

² Number of live births to women aged 45 and over per 1,000 women 45-49 years of age.

Source: Population figures used for 1920-1970 rates are from General Population Characteristics Michigan, USBC, 1971, with arithmetic extrapolation between census years. For 1971-1988 population source, see Technical Notes.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.4 (continued)
Live Birth Rates¹ by Age of Mother
 Michigan Residents, 1920 - 1992
(Live birth rates are per 1,000 women per year. Total fertility rate is total children to 1,000 women in their lifetime assuming constant live birth rates.)

Year	Age of Mother							Total Fertility Rate	
	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44		45+ ²
1980	0.8	44.8	113.1	115.6	58.4	16.4	3.1	0.1	1,761.5
1981	0.8	41.3	103.5	110.8	59.5	16.2	3.0	0.2	1,817.5
1982	0.9	39.2	98.0	107.6	59.2	18.4	3.1	0.1	1,811.5
1983	0.9	37.9	89.8	104.0	58.0	19.3	3.6	0.2	1,772.5
1984	1.0	43.8	103.8	111.4	65.2	19.3	3.0	0.1	1,738.0
1985	1.0	43.9	104.1	115.1	67.1	20.5	3.1	0.2	1,775.0
1986	1.0	45.2	101.6	114.4	68.3	21.8	2.9	0.1	1,776.5
1987	1.0	46.9	102.3	117.1	71.5	22.9	3.3	0.2	1,826.0
1988	1.1	47.8	99.2	115.8	73.0	23.9	3.6	0.2	1,823.0
1989	1.2	54.6	105.7	122.3	78.2	26.4	3.8	0.2	1,962.0
1990	1.3	58.8	112.3	125.0	77.5	27.5	4.1	0.2	2,033.6
1991	1.3	56.4	111.1	118.7	77.4	28.0	4.4	0.0	1,986.6
1992	1.1	53.3	105.2	111.6	76.2	29.6	4.8	0.2	1,910.0

¹ 1990 Census population is used to calculate 1990-1992 rates.

² Number of live births to women aged 45 and over per 1,000 women 45-49 years of age.

Source: Population figures used for 1920-1970 rates are from General Population Characteristics, Michigan, USBC, 1971, with arithmetic extrapolation between census years. For 1971-1988 population source, see Technical Notes.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.5
Reported Cases of Certain Communicable Diseases
 Michigan Residents, 1900 - 1992

Year	Diphtheria	Smallpox	Typhoid Fever	Whooping Cough	Measles	Hepatitis, All Types	TB ¹ (all forms)	Meningococcal Infections ²	Polio	Syphilis ³	Gonorrhea	Acquired Immune Deficiency Syndrome
1900	2,706	694	5,122	3,375	20,356		2,721	654				
1901	2,498	5,088	3,002	2,955	4,629		2,915	506				
1902	2,993	7,086	2,456	3,534	11,978		2,658	528				
1903	3,670	6,341	2,840	4,172	8,941		2,745	525				
1904	3,510	5,753	3,028	1,779	10,386		2,928	448				
1905	2,159	2,985	2,774	1,196	6,061		2,590	577				
1906	3,648	1,240	3,163	1,364	7,403		2,653	533				
1907	2,935	1,712	1,953	872	12,139		2,699	575				
1908	2,658	2,306	2,656	1,248	4,775		2,705	487				
1909	3,109	1,533	2,694	1,054	9,047		3,423	457				
1910	3,433	3,319	3,361	1,136	13,934		4,415	522	104			
1911	3,762	888	2,660	1,897	9,639		5,254	478	68			
1912	3,294	1,127	2,847	1,255	2,834		1,958	88	78			
1913	5,505	1,995	2,253	929	9,185		1,920	165	56			
1914	5,149	1,527	2,167	1,822	11,356		2,566	205	49			
1915	4,386	1,094	1,956	2,258	4,438		3,648	107	95			
1916	5,625	1,581	2,513	1,837	12,143		7,076	163	598			
1917	8,499	3,674	1,723	3,211	14,472		4,856	75	91			
1918	6,128	5,241	1,339	2,563	6,726		3,655	95	121			
1919	7,896	2,381	1,254	1,829	8,885		4,231	75	155	5,077	7,910	
1920	10,360	4,818	1,421	7,171	22,364		4,994	203	67	8,117	11,463	
1921	12,075	4,512	1,837	6,696	3,043		5,708	173	483	7,421	9,774	
1922	8,513	1,230	1,108	5,642	12,107		5,573	159	43	7,900	9,717	
1923	7,725	2,311	982	7,617	30,041		5,471	186	39	10,480	9,597	
1924	6,011	4,527	782	4,364	18,290		5,570	157	647	13,000	10,490	
1925	3,925	784	962	7,576	10,332		5,785	128	99	14,668	10,660	
1926	5,377	549	583	8,776	39,946		5,387	96	107	14,872	10,707	
1927	4,575	1,467	581	6,818	8,303		5,406	138	282	15,713	9,318	
1928	3,724	1,335	390	9,700	27,039		5,885	276	77	15,323	8,592	
1929	4,618	2,410	310	9,340	18,040		6,248	1,864	180	16,606	9,661	

¹ Effective January 1975, a new diagnostic classification system for tuberculosis was adopted. As a result, case counts and rates prior to 1975 are not directly comparable to the figures in 1975 and later years.

² Meningococcal infections prior to 1952 data were for meningococcal meningitis.

³ Starting with 1992 data, syphilis counts represent only primary and secondary cases. Prior year counts included early latent cases.

Source: Bureau of Infectious Disease Control, Disease Control Division, MDPH.

Table 4.5 (continued)
Reported Cases of Certain Communicable Diseases
 Michigan Residents, 1900 - 1992

Year	Diphtheria	Smallpox	Typhoid Fever	Whooping Cough	Measles	Hepatitis, All Types	TB ¹ (all forms)	Meningo- coccal Infections ²	Polio	Syphilis ³	Gonorrhea	Acquired Immune Deficiency Syndrome
1930	3,206	2,375	504	7,937	28,129		5,128	901	208	16,538	8,554	
1931	1,831	915	424	11,448	6,212		6,132	293	1,137	14,662	7,843	
1932	1,188	222	513	13,091	42,129		7,103	129	112	11,969	6,963	
1933	1,152	46	453	11,720	21,654		6,624	86	93	7,691	6,447	
1934	614	49	486	11,255	6,528		5,264	53	230	6,483	6,188	
1935	645	16	355	13,427	79,061		4,642	113	614	6,416	6,372	
1936	661	32	287	14,287	2,453		5,157	120	152	6,401	6,460	
1937	842	152	241	11,426	6,154		6,469	87	421	8,708	7,072	
1938	619	274	285	14,563	79,400		6,335	69	59	14,684	7,046	
1939	452	371	177	8,997	12,948		6,119	46	904	13,144	6,364	
1940	264	76	120	11,757	20,206		6,063	49	1,228	9,999	7,650	
1941	242	114	147	16,512	70,748		5,371	49	270	11,370	8,767	
1942	243	17	74	11,602	8,569		5,720	66	162	12,461	8,753	
1943	281	18	115	12,091	51,764		6,546	757	255	15,933	9,526	
1944	419	10	78	4,049	26,711		6,419	857	884	17,288	11,987	
1945	630	16	59	5,339	6,328	134	5,471	270	215	16,046	12,565	
1946	385	3	85	8,116	42,261	34	5,548	185	1,091	18,051	12,635	
1947	238	1	77	10,472	9,574	14	6,470	113	646	15,276	10,989	
1948	126	-	49	2,668	42,952	9	6,109	107	775	12,100	9,448	
1949	119	-	48	4,157	20,279	28	5,953	120	2,909	8,740	9,427	
1950	84	-	43	9,184	38,245	48	5,538	133	2,029	8,830	8,678	
1951	48	-	33	3,156	15,227	325	6,144	138	1,463	6,532	8,494	
1952	45	-	53	1,992	32,941	283	6,152	169	3,912	7,377	7,691	
1953	12	-	31	2,932	23,334	868	5,643	151	2,346	5,619	8,790	
1954	57	-	30	5,620	40,725	1,419	5,764	150	2,168	4,686	9,940	
1955	59	-	24	4,249	23,882	1,244	5,488	170	1,177	4,865	10,306	
1956	220	-	56	1,907	41,966	814	5,515	182	656	4,785	9,598	
1957	130	-	12	1,363	19,070	657	5,011	175	498	4,571	8,428	
1958	6	-	18	1,233	41,448	688	5,587	228	1,228	4,267	8,621	
1959	3	-	8	3,001	12,234	1,136	4,743	141	448	3,421	8,033	

¹ Effective January 1975, a new diagnostic classification system for tuberculosis was adopted. As a result, case counts and rates prior to 1975 are not directly comparable to the figures in 1975 and later years.

² Meningococcal infections prior to 1952 data were for meningococcal meningitis.

³ Starting with 1992 data, syphilis counts represent only primary and secondary cases. Prior year counts included early latent cases.

Source: Bureau of Infectious Disease Control, Disease Control Division, MDPH.

Table 4.5 (continued)
Reported Cases of Certain Communicable Diseases
 Michigan Residents, 1900 - 1992

Year	Diphtheria	Smallpox	Typhoid Fever	Whooping Cough	Measles	Hepatitis, All Types	TB ¹ (all forms)	Meningococcal Infections ²	Polio	Syphilis ³	Gonorrhea	Acquired Immune Deficiency Syndrome
1960	9	-	14	1,129	36,161	2,113	4,127	169	88	3,647	8,372	-
1961	3	-	7	639	29,391	4,607	3,838	253	40	3,309	9,505	-
1962	4	-	12	1,756	25,303	3,280	3,474	139	21	4,331	11,654	-
1963	5	-	14	1,410	48,752	2,661	3,298	104	18	5,512	11,043	-
1964	1	-	13	957	30,897	2,472	3,047	80	3	5,220	12,028	-
1965	-	-	7	612	28,132	2,625	3,069	107	1	5,638	14,319	-
1966	1	-	7	653	15,251	2,589	3,259	135	1	5,842	15,424	-
1967	1	-	8	1,058	1,048	1,915	2,951	76	3	5,581	17,088	-
1968	-	-	1	429	353	2,356	2,618	94	3	5,351	18,153	-
1969	-	-	6	192	401	3,359	2,133	114	1	3,809	18,534	-
1970	-	-	14	195	1,834	4,594	1,992	69	2	3,920	20,359	-
1971	1	-	10	140	2,659	4,828	1,789	64	-	4,800	22,260	-
1972	1	-	7	116	2,353	4,322	1,632	55	1	4,891	24,750	-
1973	-	-	14	86	4,552	3,872	1,473	54	-	4,375	31,086	-
1974	-	-	11	104	2,365	3,599	1,431	54	2	2,722	32,067	-
1975	1	-	10	98	3,253	2,877	1,271	76	-	1,638	32,583	-
1976	-	-	10	70	6,139	2,645	1,349	65	1	1,089	34,836	-
1977	-	-	13	73	1,392	2,686	1,290	51	1	1,185	36,794	-
1978	-	-	15	47	8,006	2,174	1,260	87	1	1,133	36,647	-
1979	-	-	14	102	869	2,036	1,052	79	-	1,275	36,906	-
1980	1	-	12	38	250	1,799	1,185	77	1	1,110	35,125	-
1981	-	-	26	30	34	1,700	966	93	-	926	32,316	2
1982	-	-	14	34	64	1,745	932	81	-	917	32,286	2
1983	-	-	10	43	8	1,788	842	91	-	695	34,052	16
1984	-	-	9	31	465	1,728	630	90	-	763	34,758	31
1985	-	-	8	54	113	1,490	535	107	-	673	33,516	64
1986	-	-	5	35	185	1,266	619	81	-	584	37,920	149
1987	-	-	5	54	42	1,610	540	111	1	621	37,348	260
1988	-	-	5	38	54	1,202	526	92	-	1,105	37,412	439
1989	-	-	6	48	359	1,044	464	70	-	1,613	33,627	510
1990	-	-	8	88	545	1,111	504	69	-	2,625	30,779	576
1991	-	-	12	38	66	1,120	451	75	-	3,520	27,015	470
1992	-	-	4	16	13	1,238	496	87	-	1,022	21,470	706

¹ Effective January 1975, a new diagnostic classification system for tuberculosis was adopted. As a result, case counts and rates prior to 1975 are not directly comparable to the figures in 1975 and later years.

² Meningococcal infections prior to 1952 data were for meningococcal meningitis.

³ Starting with 1992 data, syphilis counts represent only primary and secondary cases. Prior year counts included early latent cases.

Source: Bureau of Infectious Disease Control, Disease Control Division, MDPH.

Table 4.6
Case Rates¹ of Certain Reported Communicable Diseases
Michigan Residents, 1900 - 1992 (Rates per 100,000 population)

Year	Diphtheria	Smallpox	Typhoid Fever	Whooping Cough	Measles	Hepatitis, All Types	TB ² (all forms)	Meningo- coccal Infections ³	Polio	Syphilis ⁴	Gonorrhea	Acquired Immune Deficiency Syndrome
1900	111.8	28.7	211.6	139.4	840.8		112.4	27.0				
1901	101.5	206.8	122.0	120.1	188.2		118.5	20.6				
1902	119.8	283.6	98.3	141.4	479.3		106.4	21.1				
1903	144.6	249.9	111.9	164.4	352.3		108.2	20.7				
1904	136.2	223.3	117.5	69.0	403.1		113.6	17.4				
1905	82.5	114.1	106.1	45.7	231.7		99.0	22.1				
1906	137.4	46.7	119.2	51.4	278.9		99.9	20.1				
1907	109.0	63.6	72.5	32.4	450.7		100.2	21.3				
1908	97.3	84.4	97.2	45.7	174.8		99.0	17.8				
1909	112.2	55.3	97.2	38.0	326.5		123.5	16.5				
1910	122.2	118.1	119.6	40.4	495.8		157.1	18.6	3.7			
1911	129.9	31.0	91.8	65.5	332.8		181.4	16.5	2.3			
1912	110.5	37.8	95.5	42.1	95.0		65.7	3.0	2.6			
1913	179.5	65.0	73.4	30.3	299.4		62.6	5.4	1.8			
1914	163.3	48.4	68.7	57.8	360.1		81.4	6.5	1.6			
1915	135.4	33.8	60.4	69.7	137.0		112.6	3.3	2.9			
1916	169.2	47.5	75.6	55.2	365.2		212.8	4.9	18.0			
1917	249.2	107.7	50.5	94.1	424.3		142.4	2.2	2.7			
1918	175.2	149.9	38.3	73.3	192.4		104.5	2.7	3.5			
1919	220.4	66.5	35.0	51.1	248.0		118.1	2.1	4.3	141.7	220.8	
1920	282.4	131.3	38.7	195.5	609.6		136.1	5.5	1.8	221.3	312.8	
1921	318.9	119.2	48.5	176.9	80.4		150.8	4.6	12.8	196.0	258.2	
1922	218.1	31.5	28.4	144.5	310.2		142.8	4.1	1.1	202.4	248.9	
1923	192.1	57.5	24.4	189.5	747.2		136.1	4.6	1.0	260.7	238.7	
1924	145.3	109.4	18.9	105.5	442.0		134.6	3.8	15.6	314.2	253.5	
1925	92.2	18.4	22.6	178.0	242.8		135.9	3.0	2.3	344.7	250.5	
1926	123.0	12.6	13.3	200.7	913.5		123.2	2.2	2.4	340.1	244.9	
1927	101.9	32.7	12.9	151.8	184.9		120.4	3.1	6.3	349.9	207.5	
1928	80.8	29.0	8.5	210.5	586.9		127.7	6.0	1.7	332.6	186.5	
1929	97.7	51.0	6.6	197.7	381.8		132.2	39.4	3.8	351.4	204.5	

¹ 1990 Census population is used to calculate 1990-1992 rates.

² Effective January, 1975, a new diagnostic classification system for tuberculosis was adopted. As a result, case counts and rates prior to 1975 are not directly comparable to the figures in 1975 and later years.

³ Meningococcal infections prior to 1952 data were for meningococci meningitis.

⁴ Starting with 1992 data, syphilis counts represent only primary and secondary cases. Prior year counts included early latent cases.

Source: Bureau of Infectious Disease Control, Disease Control Division, MDPH.

Table 4.6 (continued)
Case Rates¹ of Certain Reported Communicable Diseases
Michigan Residents, 1900 - 1992 (Rates per 100,000 population)

Year	Diphtheria	Smallpox	Typhoid Fever	Whooping Cough	Measles	Hepatitis, All Types	TB ² (all forms)	Meningo- coccal Infections ³	Polio	Syphilis ⁴	Gonorrhea	Acquired Immune Deficiency Syndrome
1930	66.2	49.0	10.4	163.9	580.9		105.9	18.6	4.3	341.5	176.6	
1931	37.5	18.7	8.7	234.4	127.2		125.6	6.0	23.3	300.2	160.6	
1932	24.1	4.5	10.4	265.8	855.4		144.2	2.6	2.3	243.0	141.4	
1933	23.2	0.9	9.1	236.0	436.0		133.4	1.7	1.9	154.9	129.8	
1934	12.3	1.0	9.7	224.8	130.4		105.1	1.1	4.6	129.5	123.6	
1935	12.8	0.3	7.0	265.9	1,565.8		91.9	2.2	12.2	127.1	126.2	
1936	13.0	0.6	5.6	280.7	48.2		101.3	2.4	3.0	125.7	126.9	
1937	16.4	3.0	4.7	222.6	119.9		126.1	1.7	8.2	169.7	137.8	
1938	12.0	5.3	5.5	281.5	1,534.8		122.5	1.3	1.1	283.8	136.2	
1939	8.7	7.1	3.4	172.5	248.3		117.3	0.9	17.3	252.0	122.0	
1940	5.0	1.4	2.3	223.7	384.4		115.3	0.9	23.4	190.2	145.5	
1941	4.5	2.1	2.7	303.7	1,301.1		98.8	0.9	5.0	209.1	161.2	
1942	4.4	0.3	1.3	209.5	154.7		103.3	1.2	2.9	225.0	158.0	
1943	5.2	0.3	2.1	224.8	962.6		121.7	14.1	4.7	296.3	177.1	
1944	7.8	0.2	1.5	75.3	496.7		119.4	15.9	16.4	321.5	222.9	
1945	11.6	0.3	1.1	98.2	116.4	2.5	100.7	5.0	4.0	295.2	231.2	
1946	6.7	*	1.5	142.2	740.3	0.6	97.2	3.2	19.1	316.2	221.3	
1947	3.9	*	1.3	172.5	157.8	0.2	106.6	1.9	10.6	251.7	181.1	
1948	2.0	-	0.8	43.1	693.3	0.1	98.6	1.7	12.5	195.3	152.5	
1949	1.9	-	0.8	65.4	319.3	0.4	93.7	1.9	45.8	137.6	148.4	
1950	1.3	-	0.7	144.1	600.2	0.8	86.9	2.1	31.8	138.6	136.2	
1951	0.7	-	0.5	48.2	232.7	5.0	93.9	2.1	22.4	99.8	129.8	
1952	0.7	-	0.8	29.7	491.1	4.2	91.7	2.5	58.3	110.0	114.7	
1953	0.2	-	0.5	42.8	340.5	12.7	82.4	2.2	34.2	82.0	128.3	
1954	0.8	-	0.4	80.0	579.8	20.2	82.1	2.1	30.9	66.7	141.5	
1955	0.8	-	0.3	58.7	330.0	17.2	75.8	2.3	16.3	67.2	142.4	
1956	2.9	-	0.7	25.4	558.4	10.8	73.4	2.4	8.7	63.7	127.7	
1957	1.7	-	0.2	17.5	244.4	8.4	64.2	2.2	6.4	58.6	108.0	
1958	0.1	-	0.2	15.7	526.9	8.7	71.0	2.9	15.6	54.2	109.6	
1959	*	-	0.1	37.7	153.7	14.3	59.6	1.8	5.6	43.0	100.9	

¹ 1990 Census population is used to calculate 1990-1992 rates.

² Effective January, 1975, a new diagnostic classification system for tuberculosis was adopted. As a result, case counts and rates prior to 1975 are not directly comparable to the figures in 1975 and later years.

³ Meningococcal infections prior to 1952 data were for meningococci meningitis.

⁴ Starting with 1992 data, syphilis counts represent only primary and secondary cases. Prior year counts included early latent cases.

Source: Bureau of Infectious Disease Control, Disease Control Division, MDPH.

Table 4.6 (continued)
Case Rates¹ of Certain Reported Communicable Diseases
Michigan Residents, 1900 - 1992 (Rates per 100,000 population)

Year	Diphtheria	Smallpox	Typhoid Fever	Whooping Cough	Measles	Hepatitis, All Types	TB ² (all forms)	Meningo- coccal Infections ³	Polio	Syphilis ⁴	Gonorrhea	Acquired Immune Deficiency Syndrome
1960	0.1	-	0.2	14.4	462.2	27.0	52.8	2.2	1.1	46.6	107.0	
1961	*	-	0.1	8.1	371.9	58.3	48.6	3.2	0.5	41.9	120.3	
1962	*	-	0.2	22.1	318.7	41.3	43.8	1.8	0.3	54.6	146.8	
1963	*	-	0.2	17.6	607.1	33.1	41.1	1.3	0.2	68.6	137.5	
1964	*	-	0.2	11.8	381.4	30.5	37.6	1.0	*	64.4	148.5	
1965	-	-	0.1	7.5	343.1	32.0	37.4	1.3	*	68.8	174.6	
1966	*	-	0.1	7.9	183.4	31.1	39.2	1.6	*	70.3	185.5	
1967	*	-	0.1	12.3	12.2	22.2	34.2	0.9	*	64.8	198.4	
1968	-	-	*	4.9	4.1	27.2	30.2	1.1	*	61.7	209.3	
1969	-	-	0.1	2.2	4.6	38.5	24.4	1.3	*	43.6	212.2	
1970	-	-	0.2	2.2	20.7	51.8	22.4	0.8	*	44.2	229.4	
1971	*	-	0.1	1.6	29.6	53.8	19.9	0.7	-	53.5	248.1	
1972	*	-	0.1	1.3	26.1	47.9	18.1	0.6	*	54.2	274.2	
1973	-	-	0.2	0.9	50.2	42.7	16.2	0.6	-	48.2	342.7	
1974	-	-	0.1	1.1	26.0	39.5	15.7	0.6	-	29.9	352.0	
1975	*	-	0.1	1.1	35.7	31.6	14.0	0.8	-	18.0	357.7	
1976	-	-	0.1	0.8	67.3	29.0	14.8	0.7	*	11.9	382.1	
1977	-	-	0.1	0.8	15.2	29.3	14.1	0.6	-	12.9	401.8	
1978	-	-	0.2	0.5	87.0	23.6	13.7	0.9	*	12.3	398.3	
1979	-	-	0.2	1.1	9.4	22.0	11.4	0.9	-	13.6	396.0	
1980	*	-	0.1	0.4	2.7	19.4	12.6	0.8	*	12.6	377.4	*
1981	-	-	0.3	0.3	0.4	18.3	10.0	1.0	-	11.4	350.9	*
1982	-	-	0.2	0.4	0.7	18.9	9.4	0.9	-	10.0	356.0	
1983	-	-	0.1	0.5	0.1	19.5	8.6	1.0	-	8.0	372.1	0.2
1984	-	-	0.1	0.3	5.1	19.0	7.3	1.0	-	8.3	383.9	0.5
1985	-	-	0.1	0.6	0.7	16.4	5.9	1.2	-	7.2	368.8	0.9
1986	-	-	*	0.4	0.2	13.8	6.8	0.9	-	6.4	414.8	1.6
1987	-	-	*	0.6	0.5	17.5	5.9	1.2	*	6.8	503.8	2.4
1988	-	-	*	0.4	0.3	13.0	5.5	1.0	-	11.0	405.1	3.9
1989	-	-	0.1	0.5	3.9	11.3	5.0	0.8	-	17.4	362.6	5.5
1990	-	-	0.1	0.9	5.9	12.0	5.4	0.7	-	28.2	331.1	6.2
1991	-	-	0.1	0.4	0.7	12.0	4.9	0.8	-	37.9	290.6	5.1
1992	-	-	0.0	0.2	0.1	13.3	5.3	0.9	-	11.0	231.0	7.6

¹ 1990 Census population is used to calculate 1990-1992 rates.

² Effective January, 1975, a new diagnostic classification system for tuberculosis was adopted. As a result, case counts and rates prior to 1975 are not directly comparable to the figures in 1975 and later years.

³ Meningococcal infections prior to 1952 data were for meningococci meningitis.

⁴ Starting with 1992 data, syphilis counts represent only primary and secondary cases. Prior year counts included early latent cases.

Source: Bureau of Infectious Disease Control, Disease Control Division, MDPH.

Table 4.7
Number of Deaths and Death Rates¹ for Certain Communicable Diseases
 Michigan Residents, 1900 - 1992 (Rates per 100,000 population)

Year	Diphtheria		Strep. Sore Throat Incl. Scarlet Fever		Typhoid Fever		Whooping Cough		Measles		TB of the Respiratory System		Tuberculosis ² (all forms)		Poliomyelitis		Syphilis ³		Gonorrhea		AIDS	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
1900	529	21.9	272	11.2	869	35.9	208	8.6	342	14.1	2,018	83.4	2,500	103.3			88	3.6				
1901	502	20.4	312	12.7	645	26.2	163	6.6	79	3.2	2,152	87.5	2,548	103.6			114	4.6				
1902	504	20.2	277	11.1	608	24.3	289	11.6	238	9.5	2,088	83.6	2,462	98.5			130	5.2				
1903	686	27.0	200	7.9	606	23.9	383	15.1	176	6.9	2,155	84.9	2,562	101.0			101	4.0				
1904	515	20.0	210	8.1	641	24.9	148	5.7	194	7.5	2,306	89.5	2,761	107.2			89	3.5				
1905	478	18.3	123	4.7	636	24.3	131	5.0	123	4.7	2,288	87.5	2,732	104.5			89	3.4				
1906	472	17.8	227	8.6	721	27.2	469	17.7	251	9.5	2,303	86.8	2,737	103.1			89	3.4				
1907	421	15.6	159	5.9	594	22.1	223	8.3	256	9.5	2,338	86.8	2,728	101.3			94	3.6				
1908	343	12.6	194	7.1	687	25.1	305	11.2	121	4.4	2,249	82.3	2,706	99.0			118	4.5				
1909	395	14.3	275	9.9	653	23.6	217	7.8	270	9.7	2,237	80.7	2,629	94.9			127	4.8				
1910	495	17.6	297	10.6	654	23.3	318	11.3	251	8.9	2,273	80.9	2,756	98.1	52	1.9	65	2.3				
1911	473	16.3	208	7.2	551	19.0	254	8.8	200	6.9	2,284	78.9	2,766	95.5	55	1.9	104	3.6				
1912	465	15.6	186	6.2	534	17.9	252	8.5	118	4.0	2,289	76.8	2,744	92.0	48	1.7	90	3.1				
1913	676	22.0	283	9.2	538	17.5	292	9.5	258	8.4	2,243	73.1	2,703	88.1	43	1.5	136	4.6				
1914	507	16.1	177	5.6	400	12.7	304	9.6	180	5.7	2,325	73.7	2,799	88.8	41	1.4	160	5.3				
1915	354	10.9	107	3.3	353	10.9	236	7.3	101	3.1	2,527	78.0	2,986	92.2	36	1.2	163	5.3				
1916	507	15.2	177	5.3	424	12.8	228	6.9	363	10.9	2,573	77.4	3,070	92.3	141	4.6	206	6.7				
1917	851	24.9	340	10.0	386	11.3	360	10.6	259	7.6	2,779	81.5	3,310	97.0	44	1.4	224	7.1				
1918	686	19.6	181	5.2	337	9.6	496	14.2	270	7.7	3,059	87.5	3,612	103.3	58	1.8	290	9.1				
1919	764	21.3	179	5.0	272	7.6	172	4.8	183	5.1	2,620	73.1	3,127	87.3	80	2.2	299	8.2				
1920	888	24.2	305	8.3	297	8.1	511	13.9	436	11.9	2,645	72.1	3,149	85.8	30	0.8	314	8.4				
1921	994	25.2	334	8.8	285	7.5	316	8.3	58	1.5	2,285	60.4	2,736	72.3	100	2.6	226	5.9	14	0.4		
1922	620	15.9	217	5.6	192	4.9	232	5.9	232	5.9	2,232	57.2	2,654	68.0	21	0.5	186	4.7	6	0.2		
1923	675	16.8	304	7.6	202	5.0	323	8.0	258	6.4	2,410	59.9	2,837	70.6	18	0.5	262	6.8	5	*		
1924	470	11.4	265	6.4	149	3.6	169	4.1	221	5.3	2,474	59.8	2,952	71.3	116	3.0	271	7.0	13	0.3		
1925	358	8.4	208	4.9	157	3.7	260	6.1	69	1.6	2,410	56.6	2,830	66.5	31	0.7	282	6.6	27	0.6		
1926	677	15.5	235	5.4	119	2.7	355	8.1	577	13.2	2,601	59.5	3,041	69.5	34	0.8	327	7.5	12	0.3		
1927	516	11.5	168	3.7	94	2.1	201	4.5	67	1.5	2,514	56.0	2,952	65.7	69	1.5	305	6.8	16	0.4		
1928	384	8.3	178	3.9	83	1.8	219	4.8	303	6.6	2,647	57.4	3,108	67.5	27	0.6	384	8.4	19	0.4		
1929	498	10.5	145	3.1	81	1.7	255	5.4	146	3.1	2,685	56.8	3,140	66.5	50	1.1	397	8.4	19	0.4		

¹ 1990 Census population is used to calculate 1990-1992 rates.

² Effective January 1975, a new diagnostic classification system for tuberculosis was adopted. As a result, deaths and rates prior to 1975 are not directly comparable to the figures in 1975 and later years.

³ From 1901 through 1920, syphilis includes all other venereal diseases, beginning with 1968 excludes aortic aneurysms not specified as syphilitic.

Source: Bureau of Infectious Disease Control, Disease Control Division, MDPH

Table 4.7 (continued)
 Number of Deaths and Death Rates¹ for Certain Communicable Diseases
 Michigan Residents, 1900 - 1992 (Rates per 100,000 population)

Year	Diphtheria		Strep. Sore Throat Incl. Scarlet Fever		Typhoid Fever		Whooping Cough		Measles		TB of the Respiratory System		Tuberculosis ² (all forms)		Poliomyelitis		Syphilis ³		Gonorrhea		AIDS		
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
1930	299	6.2	130	2.7	87	1.8	176	3.6	231	4.8	2,443	50.5	2,912	60.1	39	0.8	395	8.2	12	0.2			
1931	172	3.5	122	2.5	73	1.5	190	3.9	28	0.6	2,263	46.3	2,660	54.5	108	2.2	361	7.4	3	*			
1932	106	2.2	112	2.3	56	1.1	199	4.0	183	3.7	2,101	42.7	2,463	50.0	23	0.5	377	7.7	2	*			
1933	112	2.3	157	3.2	50	1.0	153	3.1	111	2.2	1,996	40.2	2,348	47.3	5	*	327	6.6	7	0.1			
1934	38	0.8	171	3.4	65	1.3	141	2.8	36	0.7	1,909	38.1	2,199	43.9	25	0.5	402	8.0	10	0.2			
1935	58	1.1	98	1.9	34	0.7	132	2.6	184	3.6	1,741	34.5	2,044	40.5	32	0.6	393	7.8	3	*			
1936	52	1.0	114	2.2	37	0.7	107	2.1	12	0.2	1,816	35.7	2,100	41.3	21	0.4	394	7.7	6	0.1			
1937	72	1.4	148	2.9	29	0.6	132	2.6	11	0.2	1,860	36.2	2,119	41.3	51	1.0	401	7.8	8	0.2			
1938	44	0.9	87	1.7	23	0.4	116	2.2	100	1.9	1,633	31.6	1,866	36.1	10	0.2	401	7.8	8	0.2			
1939	25	0.5	69	1.3	25	0.5	76	1.5	29	0.6	1,651	31.7	1,881	36.1	40	0.8	389	7.5	4	*			
1940	20	0.4	41	0.8	11	0.2	59	1.1	19	0.4	1,547	29.4	1,752	33.3	72	1.4	591	11.2	3	*			
1941	18	0.3	32	0.6	14	0.3	91	1.7	65	1.2	1,532	28.2	1,723	31.7	18	0.3	537	9.9	1	*			
1942	24	0.4	23	0.4	5	*	72	1.3	8	0.1	1,630	29.4	1,827	33.0	10	0.2	559	10.1	7	0.1			
1943	21	0.4	11	0.2	9	0.2	101	1.9	89	1.7	1,588	29.5	1,802	33.5	27	0.5	579	10.8	3	*			
1944	32	0.6	7	0.1	7	0.1	33	0.6	49	0.9	1,544	28.7	1,748	32.5	45	0.8	543	10.1	2	*			
1945	46	0.8	9	0.2	3	*	36	0.7	10	0.2	1,591	29.3	1,758	32.3	20	0.4	527	9.7	2	*			
1946	27	0.5	3	*	6	0.1	44	0.8	47	0.8	1,645	28.8	1,843	32.3	89	1.6	547	9.6	-	*			
1947	23	0.4	6	0.1	5	*	63	1.0	5	*	1,483	24.4	1,643	27.1	29	0.5	502	8.3	3	*			
1948	8	0.1	1	*	4	*	9	0.1	43	0.7	1,395	22.5	1,561	25.2	54	0.9	512	8.3	-	*			
1949	11	0.2	4	*	1	*	22	0.3	33	0.5	1,254	19.7	1,400	22.0	216	3.4	455	7.2	-	*			
1950	2	*	1	*	5	*	28	0.4	28	0.4	1,134	17.8	1,270	19.9	128	2.0	325	5.1	1	*			
1951	6	0.1	-	-	1	*	21	0.3	11	0.2	1,049	16.0	1,154	17.6	67	1.0	299	4.6	1	*			
1952	2	*	-	-	-	-	8	0.1	17	0.3	689	10.3	775	11.6	213	3.2	174	2.6	2	*			
1953	2	*	1	*	-	-	11	0.2	16	0.2	536	7.8	607	8.9	108	1.6	182	2.7	1	*			
1954	3	*	3	*	-	-	17	0.2	17	0.2	471	6.7	530	7.5	89	1.3	139	2.0	2	*			
1955	1	*	1	*	1	*	8	0.1	10	0.1	435	6.0	477	6.6	32	0.4	115	1.6	1	*			
1956	6	0.1	3	*	-	-	6	0.1	26	0.3	426	5.7	466	6.2	22	0.3	114	1.5	4	*			
1957	1	*	-	-	-	-	6	0.1	23	0.3	403	5.2	442	5.7	15	0.2	105	1.3	4	*			
1958	-	-	-	-	-	-	1	*	18	0.2	357	4.5	395	5.0	37	0.5	84	1.1	8	0.1			
1959	1	*	2	*	1	*	5	*	11	0.1	335	4.2	370	4.6	17	0.2	84	1.1	4	*			

¹ 1990 Census population is used to calculate 1990-1992 rates.

² Effective January 1975, a new diagnostic classification system for tuberculosis was adopted. As a result, deaths and rates prior to 1975 are not directly comparable to the figures in 1975 and later years.

³ From 1901 through 1920, syphilis includes all other venereal diseases, beginning with 1968 excludes aortic aneurysms not specified as syphilitic.

Source: Bureau of Infectious Disease Control, Disease Control Division, MDPH

Table 4.7 (continued)
 Number of Deaths and Death Rates¹ for Certain Communicable Diseases
 Michigan Residents, 1900-1992 (Rates per 100,000 population)

Year	Diphtheria		Strep. Sore Throat Incl. Scarlet Fever		Typhoid Fever		Whooping Cough		Measles		TB of the Respiratory System		Tuberculosis ² (all forms)		Pollomyelitis		Syphilis ³		Gonorrhea		AIDS		
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	
1960	2	*	1	*	-	-	1	*	17	0.2	364	4.7	390	5.0	4	*	79	1.0	7	0.1	-	-	
1961	1	*	1	*	-	-	2	*	13	0.2	307	3.9	332	4.2	-	-	71	0.9	7	0.1	-	-	
1962	2	*	1	*	-	-	2	*	8	0.1	307	3.9	331	4.2	2	*	94	1.2	3	*	-	-	
1963	-	-	-	-	-	-	-	-	27	0.3	276	3.4	299	3.7	1	*	72	0.9	1	*	-	-	
1964	-	-	-	-	-	-	2	*	11	0.1	288	3.6	315	3.9	1	*	66	0.8	3	*	-	-	
1965	-	-	-	-	-	-	-	-	5	*	261	3.2	285	3.5	-	-	65	0.8	2	*	-	-	
1966	1	*	-	-	-	-	-	-	7	0.1	284	3.4	301	3.6	-	-	63	0.8	-	-	-	-	
1967	-	-	-	-	-	-	-	-	3	*	206	2.4	226	2.6	-	-	44	0.5	1	*	-	-	
1968	-	-	1	*	-	-	-	-	-	-	203	2.3	262	3.0	2	*	29	0.3	-	-	-	-	
1969	-	-	-	-	-	-	-	-	-	-	147	1.7	201	2.3	-	-	26	0.3	1	*	-	-	
1970	-	-	2	*	-	-	-	-	1	*	134	1.5	180	2.0	-	-	17	0.2	2	*	-	-	
1971	-	-	4	*	-	-	-	-	-	-	122	1.4	173	1.9	-	-	18	0.2	-	-	-	-	
1972	-	-	1	*	1	*	-	-	-	-	111	1.2	157	1.7	1	*	12	0.1	-	-	-	-	
1973	-	-	-	-	-	-	1	*	2	*	101	1.1	138	1.5	3	*	12	0.1	-	-	-	-	
1974	-	-	1	*	-	-	2	*	-	-	109	1.2	142	1.6	3	*	11	0.1	-	-	-	-	
1975	-	-	-	-	-	-	1	*	1	*	81	0.9	110	1.2	5	*	10	0.1	1	*	-	-	
1976	-	-	-	-	-	-	-	-	-	-	80	0.9	102	1.1	6	0.1	11	0.1	-	-	-	-	
1977	-	-	1	*	-	-	-	-	-	-	67	0.7	97	1.1	6	0.1	3	*	-	-	-	-	
1978	-	-	-	-	-	-	1	*	1	*	60	0.7	80	0.9	2	*	5	*	-	-	-	-	
1979	-	-	-	-	-	-	-	-	-	-	47	0.5	62	0.7	2	*	9	0.1	-	-	-	-	
1980	-	-	-	-	-	-	-	-	-	-	51	0.6	61	0.7	-	-	1	*	1	*	-	-	
1981	-	-	-	-	1	*	-	-	-	-	41	0.4	53	0.6	-	-	4	*	1	*	-	-	
1982	-	-	-	-	-	-	-	-	1	*	30	0.3	41	0.4	-	-	-	-	-	-	-	-	
1983	-	-	1	*	-	-	-	-	1	*	28	0.3	39	0.4	-	-	3	*	-	-	-	-	
1984	-	-	-	-	-	-	-	-	-	-	47	0.5	59	0.7	-	-	2	*	-	-	-	-	
1985	-	-	-	-	-	-	-	-	-	-	37	0.4	46	0.5	-	-	3	*	-	-	-	-	
1986	-	-	-	-	-	-	-	-	-	-	36	0.4	44	0.5	-	-	2	*	-	-	-	-	
1987	-	-	-	-	-	-	-	-	-	-	39	0.4	46	0.5	-	-	2	*	-	-	-	-	
1988	-	-	1	*	-	-	1	*	-	-	36	0.4	42	0.5	-	-	2	*	-	-	-	-	
1989	-	-	-	-	-	-	-	-	-	-	31	0.3	32	0.3	-	-	3	*	-	-	-	-	
1990	-	-	1	*	-	-	-	-	-	-	28	0.3	43	0.5	-	-	-	-	-	-	-	160	1.7
1991	-	-	-	-	-	-	-	-	-	-	20	0.2	41	0.4	-	-	-	-	-	-	-	216	2.3
1992	-	-	-	-	-	-	-	-	-	-	30	0.3	49	0.5	-	-	1	*	-	-	-	329	3.5
																						373	4.0
																						465	5.0
																						573	6.2

¹ 1990 Census population is used to calculate 1990-1992 rates.

² Effective January 1975, a new diagnostic classification system for tuberculosis was adopted. As a result, deaths and rates prior to 1975 are not directly comparable to the figures in 1975 and later years.

³ From 1901 through 1920, syphilis includes all other venereal diseases, beginning with 1968 excludes aortic aneurysms not specified as syphilitic.

Source: Bureau of Infectious Disease Control, Disease Control Division, MDPH

Table 4.8
Number of Deaths and Death Rates¹ by Specified Causes
 Michigan Residents, 1900 - 1992
(Rates per 100,000 population)

Year	Heart Disease		Cancer ² (all forms)		Cerebrovascular Disease ³		Accidents ⁴ (all forms)		Motor Vehicle Accidents ⁵		Diabetes		Pneumonia		Chronic Liver Disease & Cirrhosis ⁶		Atherosclerosis ⁷	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
1900	2,836	117.1	1,460	60.3	2,136	88.2	1,740	71.9			224	9.3	2,388	98.6				
1901	3,040	123.6	1,484	60.3	2,147	87.3	1,901	77.3			264	10.7	2,901	117.9				
1902	3,302	132.1	1,483	59.3	2,097	83.9	1,796	71.9			289	11.6	2,637	105.5				
1903	3,702	145.9	1,694	66.8	2,321	91.5	2,017	79.5			265	10.4	2,607	102.7				
1904	3,981	154.5	1,728	67.1	2,431	94.3	2,035	79.0			298	11.6	2,646	102.7				
1905	3,715	142.0	1,693	64.7	2,405	91.9	2,034	77.8			267	10.2	2,417	92.4				
1906	3,933	148.2	1,736	65.4	2,554	96.2	2,126	80.1			311	11.7	2,621	98.7				
1907	4,269	158.5	1,747	64.9	2,690	99.9	2,209	82.0			352	13.1	3,018	112.0				
1908	4,202	153.8	1,921	70.3	2,630	96.3	2,036	74.5			359	13.1	2,313	84.7				
1909	4,354	157.1	1,948	70.3	2,739	98.8	1,903	68.7			374	13.5	2,265	81.7				
1910	4,581	163.0	2,105	74.9	3,091	110.0	2,158	76.8	49	1.7	398	14.2	2,785	99.1	282	10.0		
1911	4,639	160.2	2,142	74.0	2,916	100.7	2,121	73.2	44	1.5	373	12.9	2,763	95.4				
1912	5,324	178.5	2,291	76.8	2,707	90.8	2,005	67.2	75	2.5	448	15.0	2,796	93.8				
1913	4,908	160.0	2,388	77.8	2,834	92.4	2,333	76.1	132	4.3	483	15.7	3,082	100.5				
1914	5,124	162.5	2,414	76.6	2,993	94.9	2,108	66.8	120	3.8	503	16.0	2,909	92.2				
1915	5,538	171.0	2,567	79.2	3,384	104.5	2,219	68.5	190	5.9	498	15.4	3,229	99.7				
1916	5,819	175.0	2,710	81.5	3,559	107.0	2,853	85.8	257	7.7	500	15.0	3,698	111.2				
1917	6,103	178.9	2,765	81.1	3,703	108.6	2,925	85.8	335	9.8	569	16.7	4,455	130.6				
1918	6,091	174.2	2,931	83.8	3,493	99.9	2,599	74.3	279	8.0	591	16.9	7,238	207.0				
1919	5,651	157.7	2,990	83.5	3,483	97.2	2,612	72.9	328	9.2	559	15.6	4,081	113.9				
1920	6,732	183.5	3,158	86.1	3,876	105.7	2,646	72.1	397	10.8	577	15.7	5,794	157.9				
1921	6,176	163.1	3,373	89.1	3,931	103.8	2,476	65.4	403	10.6	586	15.5	2,849	75.3	261	6.9		
1922	6,897	176.7	3,481	89.2	4,041	103.5	2,475	63.4	529	13.6	650	16.7	3,728	95.5	267	6.8		
1923	7,266	180.7	3,545	88.2	4,420	109.9	2,826	70.3	677	16.8	635	15.8	4,719	117.4	251	6.2		
1924	6,985	168.8	3,824	92.4	4,241	102.5	3,090	74.7	1,001	24.2	661	16.0	3,332	80.5	256	6.2		
1925	7,540	177.2	3,858	90.7	4,623	108.6	3,278	77.0	1,103	25.9	746	17.5	3,294	77.4	319	7.5		
1926	8,281	189.4	4,087	93.5	4,663	106.6	3,557	81.3	1,221	27.9	743	17.0	4,440	101.5	319	7.5		
1927	8,780	195.5	4,264	95.0	4,378	97.5	3,634	80.9	1,389	30.9	819	18.2	3,543	78.9	340	7.6		
1928	9,786	212.4	4,381	95.1	4,718	102.4	3,704	80.4	1,429	31.0	905	19.6	4,518	98.1	373	8.1		
1929	10,185	215.6	4,571	96.7	4,694	99.3	3,913	82.8	1,552	32.8	935	19.8	4,216	89.2	361	7.6		

¹ 1990 Census population is used to calculate 1990-1992 rates.
² Cancer includes leukemias, aleukemias, and Hodgkin's disease beginning with 1921.
³ Cerebrovascular disease was called Vascular Lesions Affecting Central Nervous System prior to 1968.
⁴ Accidents exclude injuries undetermined whether accidentally or purposely inflicted since 1968.
⁵ Motor vehicle accidents do not include collision with heavier vehicles from 1910 through 1922. Motorcycle accidents are included beginning 1923.
⁶ Chronic liver disease and cirrhosis was called Cirrhosis of the Liver prior to 1979.
⁷ Atherosclerosis was called General Arteriosclerosis prior to 1968 and was called Arteriosclerosis from 1968-1978.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.8 (continued)
Number of Deaths and Death Rates¹ by Specified Causes
 Michigan Residents, 1900 - 1992
 (Rates per 100,000 population)

Year	Heart Disease		Cancer ² (all forms)		Cerebrovascular Disease ³		Accidents ⁴ (all forms)		Motor Vehicle Accidents ⁵		Diabetes		Pneumonia		Chronic Liver Disease & Cirrhosis ⁶		Atherosclerosis ⁷	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
1930	9,947	205.4	4,572	94.4	4,533	93.6	3,805	78.6	1,572	32.5	880	18.2	3,321	68.6	329	6.8	1,047	21.6
1931	10,206	209.0	4,763	97.5	4,388	89.8	3,630	74.3	1,516	31.0	950	19.5	2,883	59.0	365	7.5	1,005	20.6
1932	11,162	226.6	4,935	100.2	4,518	91.7	3,179	64.5	1,229	25.0	1,121	22.8	3,238	65.7	386	7.8	948	19.2
1933	11,509	231.7	5,055	101.8	4,318	86.9	3,304	66.5	1,278	25.7	1,103	22.2	2,756	55.5	354	7.1	966	19.5
1934	11,824	236.1	5,370	107.2	4,485	89.6	3,774	75.4	1,511	30.2	1,100	22.0	3,466	69.2	378	7.5	914	18.3
1935	12,456	246.7	5,399	106.9	4,420	87.5	3,771	74.7	1,676	33.2	1,228	24.3	3,801	75.3	368	7.3	897	17.8
1936	13,374	262.7	5,752	113.0	4,705	92.4	5,246	103.1	1,924	37.8	1,266	24.9	4,096	80.5	446	8.8	997	19.6
1937	13,233	257.8	5,732	111.7	4,378	85.3	4,580	89.2	2,187	42.6	1,255	24.5	4,098	79.8	430	8.4	1,168	22.8
1938	13,887	268.4	6,059	117.1	4,543	87.8	3,608	69.7	1,490	28.8	1,283	24.8	2,869	55.5	424	8.2	869	16.8
1939	14,898	285.7	6,296	120.7	4,415	84.7	3,761	72.1	1,553	29.8	1,360	26.1	2,803	53.8	387	7.4	918	17.6
1940	15,480	294.5	6,513	123.9	4,690	89.2	3,961	75.4	1,743	33.2	1,408	26.8	2,478	47.1	468	8.9	941	17.9
1941	15,761	289.8	6,551	120.5	4,698	86.4	4,450	81.8	2,156	39.6	1,382	25.4	2,235	41.1	450	8.3	906	16.7
1942	16,016	289.2	6,646	120.0	4,841	87.4	3,685	66.5	1,368	24.7	1,448	26.1	2,349	42.4	535	9.7	1,015	18.3
1943	17,816	331.3	7,127	132.5	5,311	98.8	3,480	64.7	1,025	19.1	1,535	28.5	2,931	54.5	518	9.6	1,092	20.3
1944	17,004	316.2	7,277	135.3	4,954	92.1	3,350	62.3	1,103	20.5	1,554	28.9	2,369	44.1	471	8.8	980	18.2
1945	17,421	320.5	7,486	137.7	5,295	97.4	3,432	63.1	1,199	22.1	1,561	28.7	1,932	35.5	535	9.8	970	17.8
1946	17,691	309.9	7,845	137.4	5,224	91.5	3,776	66.1	1,506	26.4	1,530	26.8	1,891	33.1	554	9.7	933	16.3
1947	18,412	303.4	8,188	134.9	5,426	89.4	3,848	63.4	1,499	24.7	1,618	26.7	2,089	34.4	697	11.5	1,031	17.0
1948	18,726	302.3	8,336	134.6	5,272	85.1	4,017	64.8	1,545	24.9	1,771	28.6	1,853	29.9	771	12.4	1,085	17.5
1949	19,137	301.3	8,697	136.9	5,438	85.6	3,838	60.4	1,493	23.5	1,884	29.7	1,885	29.7	730	11.5	1,135	17.9
1950	20,521	322.1	8,685	136.3	6,376	100.1	3,783	59.4	1,680	26.4	1,438	22.6	1,358	21.3	616	9.7	1,296	20.3
1951	21,118	322.6	9,187	140.4	6,579	100.5	3,916	59.8	1,806	27.6	1,374	21.0	1,619	24.7	569	8.7	1,312	20.0
1952	21,247	316.8	9,256	138.0	6,521	97.2	3,901	58.2	1,815	27.1	1,339	20.0	1,571	23.4	599	8.9	1,294	19.3
1953	22,425	327.3	9,904	144.5	7,045	102.8	4,375	63.8	2,051	29.9	1,419	20.7	1,538	22.4	715	10.4	1,270	18.5
1954	22,362	318.4	10,105	143.9	6,964	99.1	3,948	56.2	1,916	27.3	1,469	20.9	1,380	19.6	677	9.6	1,170	16.7
1955	23,440	323.9	10,297	142.3	7,362	101.7	4,213	58.2	2,129	29.4	1,415	19.6	1,538	21.3	805	11.1	1,237	17.1
1956	24,661	328.1	10,489	139.6	7,114	94.7	3,925	52.2	1,826	24.3	1,443	19.2	1,723	22.9	788	10.5	1,251	16.6
1957	25,369	325.1	10,810	138.5	7,632	97.8	3,643	46.7	1,680	21.5	1,510	19.4	2,045	26.2	861	11.0	1,248	16.0
1958	25,215	320.6	10,946	139.2	7,547	95.9	3,306	42.0	1,466	18.6	1,595	20.3	2,076	26.4	818	10.4	1,300	16.5
1959	25,323	318.1	11,113	139.6	7,700	96.7	3,666	46.1	1,587	19.9	1,715	21.5	1,810	22.7	815	10.2	1,403	17.6

¹ 1990 Census population is used to calculate 1990-1992 rates.
² Cancer includes leukemias, aleukemias, and Hodgkin's disease beginning with 1921.
³ Cerebrovascular disease was called Vascular Lesions Affecting Central Nervous System prior to 1968.
⁴ Accidents exclude injuries undetermined whether accidentally or purposely inflicted since 1968.
⁵ Motor vehicle accidents do not include collision with heavier vehicles from 1910 through 1922. Motorcycle accidents are included beginning 1923.
⁶ Chronic liver disease and cirrhosis was called Cirrhosis of the Liver prior to 1979.
⁷ Atherosclerosis was called General Arteriosclerosis prior to 1968 and was called Arteriosclerosis from 1968-1978.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.8 (continued)
 Number of Deaths and Death Rates¹ by Specified Causes
 Michigan Residents, 1900 - 1992
 (Rates per 100,000 population)

Year	Heart Disease		Cancer ² (all forms)		Cerebrovascular Disease ³		Accidents ⁴ (all forms)		Motor Vehicle Accidents ⁵		Diabetes		Pneumonia		Chronic Liver Disease & Cirrhosis ⁶		Atherosclerosis ⁷	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
1960	25,728	328.9	11,331	144.8	7,682	98.2	3,688	47.1	1,710	21.9	1,784	22.8	2,002	25.6	840	10.7	1,352	17.3
1961	25,519	322.9	11,476	145.2	7,745	98.0	3,692	46.7	1,656	21.0	1,778	22.5	1,692	21.4	858	10.9	1,448	18.3
1962	27,226	342.9	11,752	148.0	7,783	98.0	3,758	47.3	1,668	21.0	1,908	24.0	1,824	23.0	859	10.8	1,477	18.6
1963	27,483	342.3	12,078	150.4	8,168	101.7	4,033	50.2	2,005	25.0	2,049	25.5	1,995	24.8	958	11.9	1,652	20.6
1964	27,496	339.5	12,087	149.2	7,940	98.0	4,416	54.5	2,286	28.2	2,055	25.4	1,714	21.2	995	12.3	1,559	19.2
1965	28,134	343.1	12,419	151.5	7,769	94.8	4,494	54.8	2,271	27.7	2,133	26.3	1,987	24.2	1,068	13.0	1,726	21.1
1966	28,277	340.1	12,506	150.4	7,732	98.0	4,737	57.0	2,407	29.0	2,243	27.0	2,026	24.4	1,152	13.9	1,745	21.0
1967	28,757	333.8	13,030	151.2	7,846	91.1	4,519	52.4	2,265	26.3	2,182	25.3	1,973	22.9	1,240	14.4	1,730	20.1
1968	29,680	342.1	13,292	153.2	7,913	91.2	4,603	53.1	2,466	28.4	2,298	26.5	2,341	27.0	1,259	14.5	1,762	14.5
1969	29,396	336.6	13,328	152.6	7,706	88.2	4,766	54.6	2,579	29.5	2,188	25.1	2,229	25.5	1,430	16.4	1,289	14.8
1970	29,204	329.1	13,551	152.7	7,691	86.7	4,428	49.9	2,309	26.0	2,180	24.6	2,004	22.6	1,558	17.6	1,174	13.2
1971	30,095	335.4	13,594	151.5	7,826	87.2	4,426	49.3	2,274	25.3	2,103	23.4	1,981	22.1	1,657	18.5	1,187	13.2
1972	30,865	342.0	14,045	155.6	7,999	88.6	4,566	50.6	2,450	27.1	2,222	24.6	2,009	22.3	1,778	19.7	1,153	12.8
1973	29,944	330.1	14,220	156.7	7,987	88.0	4,630	51.0	2,389	26.3	2,074	22.9	1,958	21.6	1,711	18.9	1,142	12.6
1974	29,220	320.8	14,241	156.3	7,645	83.9	4,211	46.2	1,929	21.2	1,940	21.3	1,637	18.0	1,650	18.1	1,187	13.0
1975	28,298	310.7	14,445	158.6	7,262	79.7	4,002	43.9	1,841	20.2	1,819	20.0	1,690	18.6	1,574	17.3	1,119	12.3
1976	29,233	320.6	14,880	163.2	7,354	80.7	3,912	42.9	1,993	21.9	1,719	18.9	1,812	19.9	1,486	16.3	1,207	13.2
1977	28,895	315.6	15,125	165.2	6,818	74.5	3,945	43.1	1,993	21.8	1,615	17.6	1,639	17.9	1,356	14.8	1,164	12.7
1978	29,406	319.6	15,249	165.7	6,520	70.9	3,970	43.1	2,138	23.2	1,551	16.9	1,828	19.9	1,351	14.7	1,146	12.5
1979	29,296	316.7	15,409	166.6	6,067	65.6	3,839	41.5	1,967	21.3	1,449	15.7	1,454	15.7	1,367	14.8	1,173	12.7
1980	29,790	321.6	15,828	170.9	6,164	66.6	3,627	39.2	1,880	20.3	1,467	15.8	1,712	18.5	1,362	14.7	1,254	13.5
1981	30,172	325.5	16,142	174.1	6,121	66.0	3,390	36.6	1,727	18.6	1,487	16.0	1,644	17.7	1,253	13.5	1,270	13.7
1982	30,099	326.2	16,566	179.5	5,839	63.3	3,113	33.7	1,555	16.9	1,347	14.6	1,665	18.0	1,244	13.5	1,284	13.9
1983	30,412	332.2	16,785	183.3	5,721	62.5	2,947	32.2	1,419	15.5	1,470	16.1	2,007	21.9	1,250	13.7	1,269	13.9
1984	30,100	331.7	16,907	186.3	5,631	62.1	3,049	33.6	1,630	18.0	1,476	16.3	2,018	22.2	1,194	13.2	1,142	12.6
1985	30,618	336.9	17,281	190.1	5,528	60.8	3,228	35.5	1,676	18.4	1,387	15.3	2,193	24.1	1,256	13.8	1,173	12.9
1986	31,270	342.0	17,321	189.4	5,421	59.3	3,202	35.0	1,736	19.0	1,494	16.3	2,513	27.5	1,120	12.2	1,214	13.3
1987	30,521	331.8	17,669	192.1	5,481	59.6	3,143	34.2	1,725	18.8	1,479	16.1	2,377	25.8	1,099	11.9	1,168	12.7
1988	30,218	327.0	17,890	193.6	5,237	56.7	3,237	35.0	1,806	19.5	1,522	16.5	2,626	28.4	1,080	11.7	1,187	12.8
1989	28,031	302.3	18,264	196.9	5,173	55.8	3,228	34.8	1,750	18.9	2,052	22.1	2,633	28.4	1,170	12.6	832	9.0
1990	27,527	296.1	18,413	198.1	5,090	54.8	3,137	33.7	1,669	18.0	2,009	21.6	2,863	30.8	1,123	12.1	807	8.7
1991	27,517	296.0	19,204	206.6	5,165	55.6	3,011	32.4	1,494	16.1	2,113	22.7	2,773	29.8	1,060	11.4	823	8.9
1992	26,863	289.0	19,217	206.7	5,087	54.7	2,844	30.6	1,426	15.3	2,114	22.7	2,697	29.0	947	10.2	774	8.3

1 1990 Census population is used to calculate 1990-1992 rates.
 2 Cancer includes leukemias, aleukemias, and Hodgkin's disease beginning with 1921.
 3 Cerebrovascular disease was called Vascular Lesions Affecting Central Nervous System prior to 1968.
 4 Accidents exclude injuries undetermined whether accidentally or purposely inflicted since 1968.
 5 Motor vehicle accidents do not include collision with heavier vehicles from 1910 through 1922. Motorcycle accidents are included beginning 1923.
 6 Chronic liver disease and cirrhosis was called Cirrhosis of the Liver prior to 1979.
 7 Atherosclerosis was called General Arteriosclerosis prior to 1968 and was called Arteriosclerosis from 1968-1978.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

1. 4.9
Selected Vital Statistics by County
Michigan Residents, 1992

Area	Population Estimate ¹	Live Births	Low Weight Live Births	Deaths	Infant Deaths	Neonatal Deaths	Perinatal Deaths	Fetal Deaths	Marriages ²	Divorces ²
Michigan	9,295,297	143,827	10,829	78,916	1,460	962	1,576	755	71,322	40,425
Alcona	10,145	97	9	159	-	-	2	2	87	54
Alger	8,972	94	6	118	-	-	-	-	71	33
Allegan	90,509	1,435	70	669	7	3	8	6	713	426
Alpena	30,605	382	28	298	1	-	-	-	253	156
Antrim	18,185	262	15	223	3	-	-	-	176	95
Arenac	14,931	183	5	176	-	-	1	1	118	54
Baraga	7,954	129	9	95	1	-	-	-	57	34
Barry	50,057	706	42	381	6	1	4	4	402	257
Bay	111,723	1,576	104	1,012	18	11	17	7	903	464
Benzie	12,200	178	10	114	2	-	-	-	135	51
Berrien	161,378	2,477	206	1,449	26	12	29	19	1,389	747
Branch	41,502	539	34	385	5	4	9	6	329	228
Calhoun	135,982	2,075	158	1,377	19	7	18	12	1,250	677
Cass	49,477	541	34	453	6	1	3	3	367	265
Charlevoix	21,468	284	13	212	2	2	5	4	234	110
Cheboygan	21,398	293	21	244	3	1	3	2	180	116
Chippewa	34,604	402	15	283	2	-	2	2	290	117
Clare	24,952	376	25	316	2	1	4	3	214	137
Clinton	57,883	832	44	373	6	5	10	6	443	245
Crawford	12,260	164	12	134	2	1	3	2	96	77
Delta	37,780	411	28	368	4	3	6	4	308	138
Dickinson	26,831	322	18	307	2	2	2	1	228	132
Eaton	92,879	1,192	71	620	4	1	8	8	775	528
Emmet	25,040	359	21	255	6	5	11	6	292	154
Genesee	430,459	7,261	646	3,642	73	47	64	27	3,396	1,730
Gladwin	21,896	299	16	267	2	-	2	2	187	129
Gogebic	18,052	178	8	264	-	-	3	3	144	42
Grand Traverse	64,273	921	58	501	10	7	11	5	671	355
Gratiot	38,982	547	33	398	4	2	3	1	292	153
Hillsdale	43,431	553	26	389	3	2	6	4	325	278
Houghton	35,446	411	18	409	-	-	2	2	267	119
Huron	34,951	416	19	417	5	4	10	6	263	122
Ingham	281,912	4,297	260	1,837	30	13	27	15	2,478	1,203
Ionia	57,024	813	56	388	7	6	11	6	485	248
Iosco	30,209	474	11	306	-	-	-	-	288	184
Iron	13,175	111	4	222	1	-	-	-	85	64
Isabella	54,624	709	35	344	8	4	7	4	400	180
Jackson	149,756	2,188	141	1,292	20	11	39	29	1,284	908
Kalamazoo	223,411	3,307	240	1,671	33	21	45	24	1,821	1,088
Kalkaska	13,497	199	5	104	1	-	-	-	117	63
Kent	500,631	9,081	577	3,496	74	45	71	32	4,703	2,357
Keweenaw	1,701	20	1	30	-	-	-	-	17	8

¹ 1990 Census population.
² By county of occurrence rather than county of residence.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.9 (continued)
Selected Vital Statistics by County
Michigan Residents, 1992

Area	Population Estimate ¹	Live Births	Low Weight Live Births	Deaths	Infant Deaths	Neonatal Deaths	Perinatal Deaths	Fetal Deaths	Marriages ²	Divorces ²
Lake	8,583	107	12	129	2	2	3	1	81	42
Lapeer	74,768	1,016	60	504	11	6	12	6	641	381
Leelanau	16,527	216	9	132	2	1	2	1	95	57
Lenawee	91,476	1,247	73	783	6	5	12	7	631	466
Livingston	115,645	1,596	84	726	7	4	10	7	934	602
Luce	5,763	74	1	73	2	2	2	-	39	36
Mackinac	10,674	135	4	120	-	-	-	-	204	39
Macomb	717,400	9,828	583	5,873	53	39	80	43	6,217	2,913
Manistee	21,265	243	18	280	5	4	7	3	176	96
Marquette	70,887	921	47	529	12	11	12	3	655	324
Mason	25,537	322	19	250	1	1	2	1	227	146
Mecosta	37,308	412	22	268	4	1	6	4	295	147
Menominee	24,920	268	12	255	2	1	4	3	223	90
Midland	75,651	1,137	62	469	7	6	13	8	696	375
Missaukee	12,147	190	12	121	2	1	1	-	88	41
Monroe	133,600	1,845	114	960	10	7	9	4	884	616
Montcalm	53,059	824	42	445	5	2	5	3	502	303
Montmorency	8,936	81	3	121	-	-	-	-	63	30
Muskegon	158,983	2,541	164	1,433	23	14	24	13	1,376	866
Newaygo	38,202	674	44	349	7	5	6	4	375	235
Oakland	1,083,592	16,343	1,010	7,956	132	92	168	90	8,843	4,986
Oceana	22,454	344	13	224	3	-	4	4	203	137
Ogemaw	18,681	264	18	261	3	2	5	4	173	81
Ontonagon	8,854	88	5	123	2	1	-	-	59	27
Osceola	20,146	313	19	205	4	2	3	1	173	67
Oscoda	7,842	103	6	98	-	-	-	-	75	34
Oshtemo	17,957	288	13	148	-	-	3	3	186	98
Ottawa	187,768	3,193	139	1,152	17	6	20	16	946	361
Presque Isle	13,743	145	8	163	2	2	5	3	84	41
Roscommon	19,776	237	14	280	1	1	2	1	150	92
Saginaw	211,946	3,534	336	1,778	51	35	51	18	1,621	930
St. Clair	145,607	2,110	93	1,277	16	12	17	8	1,134	741
St. Joseph	58,913	811	51	562	11	5	12	8	536	362
Sanilac	39,928	501	32	450	9	7	5	1	317	174
Schoolcraft	8,302	90	3	96	-	-	-	-	88	37
Shiawassee	69,770	980	54	588	4	2	10	8	599	298
Tuscola	55,498	811	39	447	3	2	7	6	409	272
Van Buren	70,060	1,109	77	627	10	5	4	2	598	333
Washtenaw	282,937	4,093	261	1,593	39	28	45	20	2,229	1,216
Wayne	2,111,687	37,264	4,071	20,857	590	423	555	191	11,701	7,639
Wexford	26,360	408	27	242	3	1	2	1	263	168
Co. Not Stated	-	27	3	1	1	1	1	-	-	-

¹ 1990 Census population.

² By county of occurrence rather than county of residence.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.10
Selected Vital Statistics Rates¹ by County
Michigan Residents, 1992

Area	Live Births	Low Weight Live Births ²	Deaths	Infant Deaths	Neonatal Deaths	Perinatal Deaths	Fetal Deaths	Marriages ³	Divorces ³
Michigan	15.5	75.3	8.5	10.2	6.7	10.9	5.2	15.3	8.7
Alcona	9.6	92.8	15.7	-	-	20.2	20.2	17.2	10.6
Alger	10.5	63.8	13.2	-	-	-	-	15.8	7.4
Alegan	15.9	48.8	7.4	4.9	2.1	5.6	4.2	15.8	9.4
Alpena	12.5	73.3	9.7	2.6	-	-	-	16.5	10.2
Antrim	14.4	57.3	12.3	11.5	-	-	-	19.4	10.4
Arenac	12.3	27.3	11.8	-	-	5.4	5.4	15.8	7.2
Baraga	16.2	69.8	11.9	7.8	-	-	-	14.3	8.5
Barry	14.1	59.5	7.6	8.5	1.4	5.6	5.6	16.1	10.3
Bay	14.1	66.0	9.1	11.4	7.0	10.7	4.4	16.2	8.3
Benzie	14.6	56.2	9.3	11.2	-	-	-	22.1	8.4
Berrien	15.3	83.2	9.0	10.5	4.8	11.6	7.6	17.2	9.3
Branch	13.0	63.1	9.3	9.3	7.4	16.5	11.0	15.9	11.0
Calhoun	15.3	76.1	10.1	9.2	3.4	8.6	5.7	18.4	10.0
Cass	10.9	62.8	9.2	11.1	1.8	5.5	5.5	14.8	10.7
Charlevoix	13.2	45.8	9.9	7.0	7.0	17.4	13.9	21.8	10.2
Cheboygan	13.7	71.7	11.4	10.2	3.4	10.2	6.8	16.8	10.8
Chippewa	11.6	37.3	8.2	5.0	-	5.0	5.0	16.8	6.8
Clare	15.1	66.5	12.7	5.3	2.7	10.6	7.9	17.2	11.0
Clinton	14.4	52.9	6.4	7.2	6.0	11.9	7.2	15.3	8.5
Crawford	13.4	73.2	10.9	12.2	6.1	18.1	12.0	15.7	12.6
Delta	10.9	68.1	9.7	9.7	7.3	14.5	9.6	16.3	7.3
Dickinson	12.0	55.9	11.4	6.2	6.2	6.2	3.1	17.0	9.8
Eaton	12.8	59.6	6.7	3.4	0.8	6.7	6.7	16.7	11.4
Emmet	14.3	58.5	10.2	16.7	13.9	30.1	16.4	23.3	12.3
Genesee	16.9	89.0	8.5	10.1	6.5	8.8	3.7	15.8	8.0
Gladwin	13.7	53.5	12.2	6.7	-	6.6	6.6	17.1	11.8
Gogebic	9.9	44.9	14.6	-	-	16.6	16.6	16.0	4.7
Grand Traverse	14.3	63.0	7.8	10.9	7.6	11.9	5.4	20.9	11.0
Gratiot	14.0	60.3	10.2	7.3	3.7	5.5	1.8	15.0	7.8
Hillsdale	12.7	47.0	9.0	5.4	3.6	10.8	7.2	15.0	12.8
Houghton	11.6	43.8	11.5	-	-	4.8	4.8	15.1	6.7
Huron	11.9	45.7	11.9	12.0	9.6	23.7	14.2	15.0	7.0
Ingham	15.2	60.5	6.5	7.0	3.0	6.3	3.5	17.6	8.5
Ionia	14.3	68.9	6.8	8.6	7.4	13.4	7.3	17.0	8.7
Iosco	15.7	23.2	10.1	-	-	-	-	19.1	12.2
Iron	8.4	36.0	16.9	-	-	-	-	12.9	9.7
Isabella	13.0	49.4	6.3	11.3	5.6	9.8	5.6	14.6	6.6
Jackson	14.6	64.4	8.6	9.1	5.0	17.6	13.1	17.1	12.1
Kalamazoo	14.8	72.6	7.5	10.0	6.4	13.5	7.2	16.3	9.7
Kalkaska	14.7	25.1	7.7	5.0	-	-	-	17.3	9.3
Kent	18.1	63.5	7.0	8.1	5.0	7.8	3.5	18.8	9.4
Keweenaw	11.8	50.0	17.6	-	-	-	-	20.0	9.4

¹ 1990 Census population is used to calculate 1990-1992 rates.
² Ratio per 1,000 live births.
³ By county of occurrence rather than county of residence. Rate of persons per 1,000 population rather than events per population.
 Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.10 (continued)
Selected Vital Statistics Rates¹ by County
Michigan Residents, 1992

Area	Live Births	Low Weight Live Births ²	Deaths	Infant Deaths	Neonatal Deaths	Perinatal Deaths	Fetal Deaths	Marriages ³	Divorces ³
Lake	12.5	112.1	15.0	18.7	18.7	27.8	9.3	18.9	9.8
Lapeer	13.6	59.1	6.7	10.8	5.9	11.7	5.9	17.1	10.2
Leelanau	13.1	41.7	8.0	9.3	4.6	9.2	4.6	11.5	6.9
Lenawee	13.6	58.5	8.6	4.8	4.0	9.6	5.6	13.8	10.2
Livingston	13.8	52.6	6.3	4.4	2.5	6.2	4.4	16.2	10.4
Luce	12.8	13.5	12.7	27.0	27.0	27.0	-	13.5	12.5
Mackinac	12.6	29.6	11.2	-	-	-	-	38.2	7.3
Macomb	13.7	59.3	8.2	5.4	4.0	8.1	4.4	17.3	8.1
Manistee	11.4	74.1	13.2	20.6	16.5	28.5	12.2	16.6	9.0
Marquette	13.0	51.0	7.5	13.0	11.9	13.0	3.2	18.5	9.1
Mason	12.6	59.0	9.8	3.1	3.1	6.2	3.1	17.8	11.4
Mecosta	11.0	53.4	7.2	9.7	4.9	14.4	9.6	15.8	7.9
Menominee	10.8	44.8	10.2	7.5	3.7	14.8	11.1	17.9	7.2
Midland	15.0	54.5	6.2	6.2	5.3	11.4	7.0	18.4	9.9
Missaukee	15.6	63.2	10.0	10.5	5.3	5.3	-	14.5	6.8
Monroe	13.8	61.8	7.2	5.4	3.8	4.9	2.2	13.2	9.2
Montcalm	15.5	51.0	8.4	6.1	2.4	6.0	3.6	18.9	11.4
Montmorency	9.1	37.0	13.5	-	-	-	-	14.1	6.7
Muskegon	16.0	64.5	9.0	9.1	5.5	9.4	5.1	17.3	10.9
Newaygo	17.6	65.3	9.1	10.4	7.4	8.8	5.9	19.6	12.3
Oakland	15.1	61.8	7.3	8.1	5.6	10.2	5.5	16.3	9.2
Oceana	15.3	37.8	10.0	8.7	-	11.5	11.5	18.1	12.2
Ogemaw	14.1	68.2	14.0	11.4	7.6	18.7	14.9	18.5	8.7
Ontonagon	9.9	56.8	13.9	22.7	11.4	-	-	13.3	6.1
Oseola	15.5	60.7	10.2	12.8	6.4	9.6	3.2	17.2	6.7
Oscoda	13.1	58.3	12.5	-	-	9.6	9.6	19.1	8.7
Otsego	16.0	45.1	8.2	-	-	10.3	10.3	20.7	10.9
Ottawa	17.0	43.5	6.1	5.3	1.9	6.2	5.0	10.1	3.8
Presque Isle	10.6	55.2	11.9	13.8	13.8	33.8	20.3	12.2	6.0
Roscommon	12.0	59.1	14.2	4.2	4.2	8.4	4.2	15.2	9.3
Saginaw	16.7	95.1	8.4	14.4	9.9	14.4	5.1	15.3	8.8
St. Clair	14.5	44.1	8.8	7.6	5.7	8.0	3.8	15.6	10.2
St. Joseph	13.8	62.9	9.5	13.6	6.2	14.7	9.8	18.2	12.3
Sanilac	12.5	63.9	11.3	18.0	14.0	10.0	2.0	15.9	8.7
Schoolcraft	10.8	33.3	11.6	-	-	-	-	21.2	8.9
Shiawassee	14.0	55.1	8.0	4.1	2.0	10.1	8.1	17.2	8.5
Tuscola	14.6	48.1	8.1	3.7	2.5	8.6	7.3	14.7	9.8
Van Buren	15.8	69.4	8.9	9.0	4.5	3.6	1.8	17.1	9.5
Washtenaw	14.5	63.8	5.6	9.5	6.8	10.9	4.9	15.8	8.6
Wayne	17.6	109.2	9.9	15.8	11.4	14.8	5.1	11.1	7.2
Wexford	15.5	66.2	9.2	7.4	2.5	4.9	2.4	20.0	12.7

¹ 1990 Census population is used to calculate 1990-1992 rates.

² Ratio per 1,000 live births.

³ By county of occurrence rather than county of residence. Rate of persons per 1,000 population rather than events per population.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.11
Live Births with Selected Risk Factors by County of Residence
Michigan Residents, 1992

Area	Medical Risk Factor Present ¹		Complications of Labor/Delivery ²		Abnormal Conditions of Newborn ³		Mother Smoked While Pregnant		Mother Drank Alcohol While Pregnant		Congenital Anomalies Reported ⁴		Inadequate Prenatal Care ⁵		Mother's Education <12 Grade		Mother <18 Years of Age	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Michigan	29,347	20.4	40,192	27.9	11,665	8.1	29,654	20.6	3,515	2.4	2,108	1.5	13,301	9.2	28,300	19.7	6,841	4.8
Alcona	32	33.0	41	42.3	7	7.2	28	28.9	2	2.1	1	1.0	3	3.1	19	19.6	6	6.2
Alger	12	12.8	23	24.5	1	1.1	28	29.8	2	2.1	1	1.1	7	7.4	14	14.9	3	3.2
Allegan	234	16.3	366	25.5	92	6.4	246	17.1	16	1.1	14	1.0	68	4.7	270	18.8	44	3.1
Alpena	129	33.8	179	46.9	19	5.0	117	30.6	4	1.0	11	2.9	6	1.6	59	15.4	11	2.9
Antrim	64	24.4	89	34.0	12	4.6	75	28.6	3	1.1	5	1.9	11	4.2	55	21.0	7	2.7
Arenac	27	14.8	39	21.3	4	2.2	54	29.5	2	1.1	3	1.6	14	7.7	38	20.8	7	3.8
Baraga	25	19.4	45	34.9	7	5.4	53	41.1	8	6.2	4	3.1	7	5.4	26	20.2	3	2.3
Barry	170	24.1	266	37.7	56	7.9	185	26.2	17	2.4	12	1.7	27	3.8	90	12.7	20	2.8
Bay	197	12.5	394	25.0	87	5.5	460	29.2	52	3.3	27	1.7	47	3.0	313	19.9	85	5.4
Benzie	37	20.8	61	34.3	4	2.2	44	24.7	1	0.6	1	0.6	18	10.1	35	19.7	5	2.8
Berrien	625	25.2	633	25.6	161	6.5	551	22.2	95	3.8	43	1.7	265	10.7	662	26.7	187	7.5
Branch	111	20.6	204	37.8	13	2.4	167	31.0	9	1.7	2	0.4	77	14.3	136	25.2	20	3.7
Calhoun	401	19.3	585	28.2	93	4.5	577	27.8	57	2.7	21	1.0	117	5.6	487	23.5	148	7.1
Cass	225	41.6	179	33.1	54	10.0	141	26.1	17	3.1	20	3.7	53	9.8	163	30.1	47	8.7
Charlevoix	61	21.5	110	38.7	17	6.0	59	20.8	5	1.8	2	0.7	8	2.8	38	13.4	10	3.5
Cheboygan	85	29.0	129	44.0	20	6.8	87	29.7	4	1.4	9	3.1	10	3.4	61	20.8	20	6.8
Chippewa	55	13.7	116	28.9	16	4.0	108	26.9	5	1.2	4	1.0	26	6.5	68	16.9	22	5.5
Clare	81	21.5	107	28.5	25	6.6	105	27.9	6	1.6	4	1.1	19	5.1	92	24.5	16	4.3
Clinton	148	17.8	286	34.4	70	8.4	92	11.1	14	1.7	9	1.1	36	4.3	80	9.6	23	2.8
Crawford	56	34.1	55	33.5	19	11.6	60	36.6	9	5.5	4	2.4	7	4.3	59	36.0	15	9.1
Delta	198	48.2	93	22.6	22	5.4	125	30.4	18	4.4	12	2.9	11	2.7	77	18.7	18	4.4
Dickinson	35	10.9	82	25.5	22	6.8	87	27.0	24	7.5	7	2.2	4	1.2	44	13.7	6	1.9
Eaton	227	19.0	385	32.3	107	9.0	187	15.7	34	2.9	16	1.3	72	6.0	144	12.1	45	3.8
Emmet	92	25.6	123	34.3	21	5.8	87	24.2	5	1.4	7	1.9	8	2.2	49	13.6	6	1.7
Genesee	935	12.9	1,541	21.2	208	2.9	1,438	19.8	112	1.5	57	0.8	317	4.4	1,783	24.6	488	6.7
Gladwin	54	18.1	94	31.4	28	9.4	67	22.4	2	0.7	8	2.7	30	10.0	75	25.1	10	3.3
Gogebic	30	16.9	57	32.0	18	10.1	29	16.3	2	1.1	4	2.2	13	7.3	23	12.9	4	2.2
Grand Traverse	185	20.1	305	33.1	38	4.1	161	17.5	10	1.1	8	0.9	69	7.5	100	10.9	27	2.9
Gratiot	75	13.7	177	32.4	45	8.2	125	22.9	4	0.7	11	2.0	20	3.7	95	17.4	25	4.6
Hillsdale	113	20.4	192	34.7	17	3.1	158	28.6	14	2.5	6	1.1	59	10.7	114	20.6	22	4.0

¹ Examples of medical risk factors include: anemia, diabetes, hypertension, edema, eclampsia, renal disease, maternal drug use.

² Examples of labor and/or delivery include: abruptio placenta, seizures during labor, dysfunctional labor, fetal distress, breech/malpresentation, cord prolapse.

³ Examples of abnormal conditions of the newborn include: anemia, birth injury, fetal alcohol syndrome, hyaline membrane disease, seizures.

⁴ Congenital anomalies reported have increased due to a change in reporting procedure.

⁵ The Kessner Index is a classification of prenatal care based on the month of pregnancy prenatal care began, the number of prenatal visits and the length of pregnancy.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.11 (continued)
Live Births with Selected Risk Factors by County of Residence
Michigan Residents, 1992

Area	Medical Risk Factor Present ¹		Complications of Labor/Delivery ²		Abnormal Conditions of Newborn ³		Mother Smoked While Pregnant		Mother Drank Alcohol While Pregnant		Congenital Anomalies Reported ⁴		Inadequate Prenatal Care ⁵		Mother's Education <12 Grade		Mother <18 Years of Age	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Houghton	77	18.7	156	38.0	16	3.9	91	22.1	19	4.6	8	1.9	9	2.2	38	9.2	8	1.9
Huron	78	18.8	145	34.9	39	9.4	85	20.4	14	3.4	10	2.4	24	5.8	45	10.8	10	2.4
Ingham	959	22.3	1,503	35.0	385	9.0	961	8.4	98	2.3	61	1.4	329	7.7	799	18.6	209	4.9
Ionia	175	21.5	203	25.0	94	11.6	194	23.9	15	1.8	13	1.6	40	4.9	140	17.2	36	4.4
Iosco	115	24.3	183	38.6	21	4.4	109	23.0	5	1.1	7	1.5	35	7.4	66	13.9	10	2.1
Iron	22	19.8	32	28.8	10	9.0	35	31.5	12	10.8	1	0.9	6	5.4	15	13.5	1	0.9
Isabella	185	26.1	235	33.1	49	6.9	151	21.3	4	0.6	8	1.1	41	5.8	101	14.2	26	3.7
Jackson	558	25.5	820	37.5	137	6.3	564	25.8	19	0.9	15	0.7	286	13.1	433	19.8	138	6.3
Kalamazoo	749	22.6	1,257	38.0	220	6.7	700	21.2	169	5.1	47	1.4	133	4.0	591	17.9	140	4.2
Kalkaska	32	16.1	64	32.2	8	4.0	60	30.2	7	3.5	4	2.0	29	14.6	42	21.1	8	4.0
Kent	1,615	17.8	2,207	24.3	1,174	12.9	1,410	15.5	155	1.7	85	0.9	506	5.6	1,548	17.0	421	4.6
Keweenaw	3	15.0	9	45.0	3	15.0	2	10.0	4	20.0	1	5.0	-	-	1	5.0	-	-
Lake	26	24.3	28	26.2	12	11.2	38	35.5	6	5.6	1	0.9	13	12.1	32	29.9	10	9.3
Lapeer	189	18.6	307	30.2	74	7.3	227	22.3	17	1.7	12	1.2	47	4.6	136	13.4	29	2.9
Leelanau	44	20.4	59	27.3	8	3.7	48	22.2	5	2.3	3	1.4	16	7.4	26	12.0	6	2.8
Lenawee	258	20.7	474	38.0	52	4.2	309	24.8	33	2.6	9	0.7	75	6.0	237	19.0	51	4.1
Livingston	337	21.1	522	32.7	52	3.3	262	16.4	53	3.3	13	0.8	145	9.1	115	7.2	21	1.3
Luce	17	23.0	16	21.6	3	4.1	31	41.9	2	2.7	2	2.7	3	4.1	13	17.6	3	4.1
Mackinac	37	27.4	56	41.5	6	4.4	45	33.3	3	2.2	1	0.7	6	4.4	24	17.8	4	3.0
Macomb	2,225	22.6	2,944	30.0	1,508	15.3	2,270	23.1	211	2.1	273	2.8	906	9.2	1,111	11.3	194	2.0
Manistee	36	14.8	68	28.0	11	4.5	59	24.3	3	1.2	4	1.6	30	12.3	54	22.2	12	4.9
Marquette	150	16.3	276	30.0	60	6.5	173	18.8	9	1.0	16	1.7	15	1.6	80	8.7	22	2.4
Mason	65	20.2	88	27.3	17	5.3	73	22.7	3	0.9	4	1.2	23	7.1	68	21.1	12	3.7
Mecosta	82	19.9	112	27.2	36	8.7	103	25.0	2	0.5	7	1.7	35	8.5	88	21.4	18	4.4
Menominee	149	55.6	114	42.5	13	4.9	87	32.5	13	4.9	5	1.9	13	4.9	28	10.4	8	3.0
Midland	334	29.4	522	45.9	141	12.4	210	18.5	9	0.8	35	3.1	18	1.6	106	9.3	29	2.6
Missaukee	97	51.1	34	17.9	6	3.2	56	29.5	1	0.5	-	-	9	4.7	38	20.0	8	4.2
Monroe	399	21.6	581	31.5	151	8.2	497	26.9	30	1.6	15	0.8	112	6.1	358	19.4	83	4.5
Montcalm	197	23.9	224	27.2	104	12.6	254	30.8	12	1.5	23	2.8	52	6.3	188	22.8	38	4.6
Montmorency	21	25.9	37	45.7	4	4.9	22	27.2	-	-	1	1.2	5	6.2	16	19.8	6	7.4

¹ Examples of medical risk factors include: anemia, diabetes, hypertension, edema, eclampsia, renal disease, maternal drug use.

² Examples of labor and/or delivery include: abruptio placenta, seizures during labor, dysfunctional labor, fetal distress, breech/malpresentation, cord prolapse.

³ Examples of abnormal conditions of the newborn include: anemia, birth injury, fetal alcohol syndrome, hyaline membrane disease, seizures.

⁴ Congenital anomalies reported have increased due to a change in reporting procedure.

⁵ The Kessner Index is a classification of prenatal care based on the month of pregnancy prenatal care began, the number of prenatal visits and the length of pregnancy.

Table 4.11 (continued)
Live Births with Selected Risk Factors by County of Residence
Michigan Residents, 1992

Area	Medical Risk Factor Present ¹		Complications of Labor/Delivery ²		Abnormal Conditions of Newborn ³		Mother Smoked While Pregnant		Mother Drank Alcohol While Pregnant		Congenital Anomalies Reported ⁴		Inadequate Prenatal Care ⁵		Mother's Education <12 Grade		Mother <18 Years of Age	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Muskegon	265	10.4	452	17.8	72	2.8	655	25.8	47	1.8	19	0.7	197	7.8	538	21.2	172	6.8
Newaygo	160	23.7	225	33.4	59	8.8	170	25.2	8	1.2	7	1.0	38	5.6	155	23.0	38	5.6
Oakland	3,450	21.1	5,002	30.6	2,055	12.6	2,793	17.1	369	2.3	460	2.8	1,075	6.6	1,808	11.1	408	2.5
Oceana	46	13.4	98	28.5	12	3.5	85	24.7	14	4.1	1	0.3	32	9.3	93	27.0	13	3.8
Ogemaw	45	17.0	52	19.7	15	5.7	80	30.3	8	3.0	1	0.4	18	6.8	61	23.1	17	6.4
Ontonagon	20	22.7	35	39.8	7	8.0	18	20.5	5	5.7	4	4.5	6	6.8	9	10.2	2	2.3
Osceola	102	32.6	75	24.0	17	5.4	83	26.5	4	1.3	4	1.3	22	7.0	68	21.7	17	5.4
Oscoda	20	19.4	25	24.3	2	1.9	31	30.1	3	2.9	4	3.9	10	9.7	44	42.7	4	3.9
Oshtemo	71	24.7	101	35.1	27	9.4	72	25.0	2	0.7	6	2.1	4	1.4	34	11.8	7	2.4
Ottawa	453	14.2	750	23.5	203	6.4	278	8.7	24	0.8	38	1.2	112	3.5	372	11.7	86	2.7
Presque Isle	41	28.3	64	44.1	7	4.8	38	26.2	-	-	1	0.7	2	1.4	18	12.4	3	2.1
Roscommon	77	32.5	77	32.5	15	6.3	96	40.5	15	6.3	5	2.1	14	5.9	68	28.7	12	5.1
Saginaw	907	25.7	1,048	29.7	225	6.4	804	22.8	384	10.9	49	1.4	369	10.4	904	25.6	272	7.7
St. Clair	405	19.2	439	20.8	154	7.3	646	30.6	90	4.3	37	1.8	114	5.4	381	18.1	64	3.0
St. Joseph	155	19.1	217	26.8	46	5.7	163	20.1	16	2.0	12	1.5	42	5.2	207	25.5	47	5.8
Sanilac	113	22.6	166	33.1	36	7.2	147	29.3	17	3.4	13	2.6	24	4.8	81	16.2	17	3.4
Schoolcraft	16	17.8	29	32.2	3	3.3	35	38.9	4	4.4	2	2.2	5	5.6	11	12.2	-	-
Shiawassee	161	16.4	293	29.9	58	5.9	226	23.1	48	4.9	13	1.3	39	4.0	163	16.6	44	4.5
Tuscola	160	19.7	213	26.3	31	3.8	222	27.4	47	5.8	18	2.2	41	5.1	129	15.9	29	3.6
Van Buren	232	20.9	362	32.6	64	5.8	282	25.4	31	2.8	10	0.9	97	8.7	332	29.9	70	6.3
Washtenaw	932	22.8	1,387	33.9	42	1.0	562	13.7	130	3.2	27	0.7	740	18.1	374	9.1	102	2.5
Wayne	7,359	19.7	8,751	23.5	2,779	7.5	7,787	20.9	755	2.0	356	1.0	5,890	15.8	10,584	28.4	2,492	6.7
Wexford	188	46.1	99	24.3	16	3.9	149	36.5	7	1.7	4	1.0	17	4.2	55	13.5	13	3.2
Unknown	19	70.4	-	-	3	11.1	5	18.5	1	3.7	-	-	3	11.1	5	18.5	1	3.7

¹ Examples of medical risk factors include: anemia, diabetes, hypertension, eclampsia, renal disease, maternal drug use.

² Examples of labor and/or delivery include: abruptio placenta, seizures during labor, dysfunctional labor, fetal distress, breech/malpresentation, cord prolapse.

³ Examples of abnormal conditions of the newborn include: anemia, birth injury, fetal alcohol syndrome, hyaline membrane disease, seizures.

⁴ Congenital anomalies reported have increased due to a change in reporting procedure.

⁵ The Keesner Index is a classification of prenatal care based on the month of pregnancy prenatal care began, the number of prenatal visits and the length of pregnancy.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.12
Live Births by Age of Mother and County of Residence
Michigan Residents, 1992

Area	Total	Age of Mother											40 and Over	Age Not Stated
		Under 15	15	16	17	18	19	15-19	20-24	25-29	30-34	35-39			1,664
Michigan	143,827	373	951	2,037	3,480	5,146	6,727	18,341	37,446	43,246	31,496	11,199	1,664	62
Alcona	97	-	-	1	5	5	16	30	27	20	2	2	2	-
Alger	94	-	-	1	2	3	10	25	30	20	8	8	1	-
Allegan	1,435	1	2	18	23	55	157	429	458	299	83	8	8	-
Alpena	382	-	2	3	6	19	45	93	134	73	33	2	2	2
Antrim	262	-	2	1	6	12	35	83	76	54	13	1	1	-
Arenac	183	1	1	-	5	8	27	65	53	29	8	-	-	-
Baraga	129	1	-	-	2	5	10	56	39	10	1	1	1	-
Barry	706	-	3	8	9	19	67	212	236	144	39	8	8	-
Bay	1,576	3	17	26	39	63	225	414	501	329	89	15	15	-
Benzie	178	-	1	2	2	10	22	45	61	40	9	1	1	-
Berrien	2,477	12	32	60	83	129	468	755	645	424	150	22	22	1
Branch	539	1	4	7	8	27	75	186	161	84	27	5	5	-
Calhoun	2,075	9	22	43	74	114	386	654	580	322	105	16	16	3
Cass	541	2	3	13	29	34	111	191	132	83	20	2	2	-
Charlevoix	284	-	2	5	3	9	36	79	78	61	28	2	2	-
Cheboygan	293	-	3	5	12	10	46	77	79	57	32	2	2	-
Chippewa	402	-	6	7	9	12	57	128	123	64	24	6	6	-
Clare	376	-	2	5	9	20	70	139	93	51	18	4	4	1
Clinton	832	2	1	5	15	19	61	182	318	198	65	6	6	-
Crawford	164	-	3	5	7	7	35	48	45	25	11	-	-	-
Delta	411	-	1	4	13	14	53	120	119	72	36	11	11	-
Dickinson	322	-	-	2	4	9	34	85	101	74	26	2	2	-
Eaton	1,192	4	5	11	25	36	131	332	354	275	87	9	9	-
Emmet	359	-	-	2	4	15	20	90	104	83	33	8	8	-
Genesee	7,261	30	63	146	249	330	1,206	2,176	2,055	1,279	464	50	50	1
Gladwin	299	1	1	3	5	15	47	97	94	40	12	8	8	-
Gogebic	178	-	3	-	1	8	22	71	43	29	11	2	2	-
Grand Traverse	921	2	1	11	13	27	86	207	275	251	87	13	13	-
Gratiot	547	1	2	7	15	15	68	175	193	85	19	5	5	1
Hillsdale	553	1	2	4	15	38	88	165	180	87	26	6	6	-
Houghton	411	-	-	3	5	8	39	101	119	97	46	9	9	-
Huron	416	-	-	2	8	10	37	117	142	85	32	3	3	-
Ingham	4,297	16	31	63	99	134	542	1,095	1,296	920	360	64	64	4
Ionia	813	3	4	10	19	36	113	273	222	146	46	10	10	-
Iosco	474	-	1	3	6	22	53	148	170	76	20	7	7	-
Iron	111	-	1	-	1	4	11	32	41	16	9	2	2	-
Isabella	709	1	2	6	17	26	80	205	231	143	44	5	5	-
Jackson	2,188	2	14	46	76	96	355	645	668	359	142	17	17	-
Kalamazoo	3,307	4	17	49	70	110	402	873	946	784	269	29	29	-
Kalkaska	199	-	-	-	8	11	35	72	48	33	10	1	1	-
Kent	9,081	19	70	132	200	305	1,036	2,211	2,906	2,087	722	98	98	2
Keweenaw	20	-	-	-	-	-	2	4	7	5	2	-	-	-

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.12 (continued)
Live Births by Age of Mother and County of Residence
Michigan Residents, 1992

Area	Total	Age of Mother										40 and Over	Age Not Stated	
		Under 15	15	16	17	18	19	15-19	20-24	25-29	30-34			35-39
Lake	107	2	2	2	4	6	6	20	42	28	11	4	-	-
Lapeer	1,016	-	2	5	22	23	39	91	304	349	215	53	4	-
Leelanau	216	-	2	2	4	5	7	18	33	68	59	36	2	-
Lenawee	1,247	2	7	11	31	55	72	176	348	378	247	88	8	-
Livingston	1,596	-	1	6	14	25	35	81	277	552	481	179	26	-
Luce	74	-	1	1	1	4	2	31	31	16	15	2	1	-
Mackinac	135	-	3	-	1	6	8	18	40	43	24	10	-	-
Macomb	9,828	8	16	57	113	152	272	610	1,966	3,620	2,671	838	106	9
Manistee	243	-	1	-	11	6	11	29	60	77	51	21	4	1
Marquette	921	-	1	8	13	26	41	89	268	290	192	69	13	-
Mason	322	1	-	4	7	13	17	41	90	101	63	23	3	-
Mecosta	412	1	1	5	11	27	30	74	127	123	66	15	6	-
Merominee	268	1	-	4	3	13	9	29	83	82	42	27	4	-
Midland	1,137	1	5	9	14	27	40	95	284	358	288	92	19	-
Missaukee	190	-	-	3	5	8	8	24	76	53	26	9	2	-
Monroe	1,845	-	13	26	44	55	83	221	517	609	363	115	20	-
Montcalm	824	2	2	11	23	39	57	132	299	217	132	37	4	1
Montmorency	81	-	-	2	4	4	7	17	24	23	14	3	-	-
Muskegon	2,541	7	25	56	84	128	134	427	790	698	464	136	19	-
Newaygo	674	3	3	14	18	27	38	100	220	201	103	42	5	-
Oakland	16,343	18	46	113	231	301	439	1,130	2,750	5,155	5,118	1,893	275	4
Oceana	344	2	-	4	7	13	15	39	122	85	79	13	4	-
Ogemaw	264	1	-	5	11	11	14	41	94	74	35	13	4	2
Ontonagon	88	-	-	-	2	3	7	12	40	22	3	3	1	-
Oscoda	313	-	1	6	10	16	21	54	92	88	57	20	2	-
Oscoda	103	-	-	3	1	4	5	13	34	25	16	14	1	-
Otsego	288	-	1	1	5	7	16	30	93	93	52	17	3	-
Ottawa	3,193	3	5	26	52	80	96	259	676	1,186	803	240	24	2
Presque Isle	145	-	-	1	2	3	3	9	39	56	28	10	3	-
Roscommon	237	-	1	2	9	14	21	47	77	63	36	11	3	-
Saginaw	3,534	12	44	88	128	166	207	633	955	1,008	681	205	40	-
St. Clair	2,110	1	13	17	33	86	96	245	605	676	430	128	20	5
St. Joseph	811	1	5	14	27	28	50	124	267	220	139	46	11	3
Sanilac	501	-	2	5	10	18	13	48	172	153	95	32	1	-
Schoolcraft	90	-	-	-	-	9	5	14	20	28	6	6	-	-
Shiawassee	980	2	3	15	24	39	55	136	278	299	192	59	14	-
Tuscola	811	2	5	5	17	29	31	87	255	263	150	48	6	-
Van Buren	1,109	4	9	18	39	52	69	187	365	297	171	74	9	2
Washtenaw	4,093	5	8	30	59	89	133	319	730	1,244	1,176	527	91	1
Wayne	37,264	178	402	737	1,175	1,668	2,146	6,128	10,589	10,009	7,174	2,728	442	16
Wexford	408	-	2	2	9	10	19	42	120	126	88	31	1	-
Co. Not Stated	27	-	-	-	1	2	-	3	9	7	4	3	-	1

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.13
Vital Statistics for Residents of Selected Michigan Cities¹
 1992

Area	Live Births	Deaths	Infant Deaths		Fetal Deaths	
			Number	Rate	Number	Rate
Allen Park	324	360	2	*	4	*
Ann Arbor	1,484	506	7	4.7	8	5.4
Battle Creek	1,189	613	10	8.4	7	5.9
Bay City	714	426	8	11.2	4	*
Burton City	349	235	2	*	3	*
Dearborn	1,570	895	12	7.6	6	3.8
Dearborn Heights	734	571	7	9.5	3	*
Detroit	21,548	11,255	462	21.4	105	4.8
East Detroit	479	390	1	*	4	*
East Lansing	388	160	3	*	2	*
Farmington Hills	944	496	1	*	6	6.3
Ferndale	477	292	3	*	4	*
Flint	3,526	1,481	50	14.2	15	4.2
Garden City	441	239	3	*	3	*
Grand Rapids	4,065	1,768	40	9.8	18	4.4
Highland Park	402	274	8	19.9	1	*
Holland	670	299	4	*	3	*
Inkster	599	347	12	20.0	1	*
Jackson	885	395	7	7.9	20	22.1
Kalamazoo	1,516	688	20	13.2	14	9.2
Kentwood	717	157	4	*	4	*
Lansing	2,609	981	19	7.3	9	3.4
Lincoln Park	574	406	9	15.7	3	*
Livonia	1,224	919	7	5.7	6	4.9
Madison Heights	492	269	3	*	1	*
Midland	540	270	5	*	5	*
Muskegon	884	436	11	12.4	8	9.0
Oak Park	517	243	5	*	1	*
Pontiac	1,656	638	30	18.1	11	6.6
Portage	535	238	5	*	4	*
Port Huron	598	373	8	13.4	2	*
Roseville	754	454	3	*	1	*
Royal Oak	914	525	4	*	6	6.5
Saginaw	1,838	701	36	19.6	13	7.0
St. Clair Shores	750	794	1	*	4	*
Southfield	991	777	9	9.1	8	8.0
Southgate	385	280	2	*	1	*
Sterling Heights	1,515	720	5	*	2	*
Taylor	1,175	508	11	9.4	8	6.8
Troy	889	392	4	*	7	7.8
Warren	1,855	1,373	13	7.0	6	3.2
Westland	1,307	727	8	6.1	6	4.6
Wyandotte	406	336	1	*	6	14.6
Wyoming	1,163	355	11	9.5	2	*

¹ 25,000 population or over according to the 1980 Census.

² On January 1, 1983, Battle Creek City annexed Battle Creek Township. The data shown for Battle Creek in this table are for the current boundaries of Battle Creek, and thus are not comparable to data for Battle Creek for earlier years. The infant death rate in 1982 for the area which is now Battle Creek was 15.9.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.14
 Number of Deaths by Underlying Cause and County of Residence
 Michigan Residents, 1992

Area	All Causes	T.B. All Forms	All Other Infectious and Parasitic Diseases	Malignant Neoplasms							
				Total	Digestive Organs and Peritoneum	Respiratory and Intrathoracic Organs	Breast	Genital Organs	Urinary Organs	Leukemia	Other
Michigan	78,916	49	1,463	19,217	4,452	5,724	1,597	2,269	841	714	3,620
Alcona	159	1	7	41	6	20	2	2	3	1	7
Alger	118	-	1	24	5	10	2	4	-	-	3
Allegan	669	-	6	158	40	35	5	21	11	2	44
Alpena	298	-	1	89	22	28	4	7	3	1	24
Antrim	223	-	2	55	8	15	8	9	4	3	8
Arenac	176	-	-	43	10	15	6	3	2	1	6
Baraga	95	-	1	20	3	5	2	3	1	1	5
Barry	381	1	3	91	18	26	8	7	4	5	23
Bay	1,012	-	13	250	67	76	14	21	9	15	48
Benzie	114	-	2	39	4	19	3	5	2	2	4
Berrien	1,449	-	16	379	97	96	36	49	17	17	67
Branch	385	-	5	102	20	38	4	12	5	5	18
Calhoun	1,377	-	22	320	82	93	15	42	12	14	62
Cass	453	-	3	106	28	31	9	12	7	3	16
Charlevoix	212	-	2	57	10	24	3	7	4	-	9
Cheboygan	244	-	3	72	16	23	4	9	4	1	15
Chippewa	283	1	5	65	13	20	4	13	4	4	11
Clare	316	-	4	85	21	28	4	8	-	-	19
Clinton	373	-	5	87	18	26	10	11	-	-	22
Crawford	134	-	1	36	10	13	2	4	1	1	5
Delta	368	-	6	104	32	28	6	11	3	3	21
Dickinson	307	-	1	64	9	24	5	6	4	2	14
Eaton	620	-	16	168	43	47	13	14	7	5	39
Emmet	255	-	3	68	14	18	8	7	1	4	16
Genesee	3,642	5	63	872	204	297	70	94	21	40	146
Gladwin	267	-	2	65	17	22	4	2	3	4	13
Gogebic	264	-	7	69	19	20	4	12	4	5	5
Grand Traverse	501	1	6	135	29	52	9	12	6	9	18
Gratiot	398	-	2	69	15	20	8	4	3	3	16
Hillsdale	389	-	7	86	25	25	1	8	7	1	19
Houghton	409	-	1	106	27	27	9	19	4	2	18
Huron	417	-	3	92	24	22	9	16	3	2	16
Ingham	1,837	-	38	472	107	134	44	45	23	21	98
Ionia	388	-	6	94	13	30	5	14	9	4	19
Iosco	306	-	2	86	27	20	9	10	5	3	12
Iron	222	-	2	60	16	17	8	7	2	1	9
Isabella	344	-	1	83	19	22	5	6	5	1	25
Jackson	1,292	-	19	302	56	84	31	34	20	8	69
Kalamazoo	1,671	-	34	401	82	110	43	48	22	21	75
Kalkaska	104	-	2	22	6	8	1	2	3	-	2
Kent	3,496	1	69	846	195	226	84	98	47	26	170

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.14 (continued)
 Number of Deaths by Underlying Cause and County of Residence
 Michigan Residents, 1992

Area	All Causes	T.B. All Forms	All Other Infectious and Parasitic Diseases	Malignant Neoplasms								
				Total	Digestive Organs and Peritoneum	Respiratory and Intrathoracic Organs	Breast	Genital Organs	Urinary Organs	Leukemia	Other	
Keweenaw	30	-	-	5	-	3	-	-	-	-	-	2
Lake	129	-	1	44	15	16	-	-	-	2	-	6
Lapeer	504	-	8	127	21	42	-	-	-	9	-	27
Leelanau	132	1	3	28	7	9	-	-	-	3	-	4
Lenawee	783	1	7	197	48	46	-	-	-	10	-	40
Livingston	726	-	15	206	42	56	-	-	-	17	-	38
Luce	73	-	-	17	6	5	-	-	-	1	-	4
Mackinac	120	-	1	27	6	10	-	-	-	-	-	4
Macomb	5,873	4	98	1,572	352	507	-	-	-	64	-	286
Manistee	280	-	2	67	8	19	-	-	-	4	-	12
Marquette	529	-	4	120	32	33	-	-	-	7	-	16
Mason	250	-	-	61	14	19	-	-	-	2	-	8
Mecosta	268	-	3	76	14	15	-	-	-	7	-	21
Menominee	255	-	3	60	14	15	-	-	-	2	-	14
Midland	469	-	4	106	21	38	-	-	-	7	-	18
Missaukee	121	-	1	24	2	6	-	-	-	2	-	5
Monroe	960	-	11	251	51	91	-	-	-	13	-	40
Montcalm	445	-	9	88	19	25	-	-	-	6	-	20
Montmorency	121	-	1	30	6	9	-	-	-	1	-	5
Muskegon	1,433	2	25	341	81	80	-	-	-	15	-	77
Newaygo	349	-	4	86	22	27	-	-	-	3	-	20
Oakland	7,956	4	150	2,035	421	602	-	-	-	69	-	423
Oceana	224	1	-	57	14	13	-	-	-	-	-	13
Ogemaw	261	-	1	78	23	19	-	-	-	9	-	7
Ontonagon	123	-	-	21	6	7	-	-	-	3	-	2
Osceola	205	-	3	46	10	9	-	-	-	3	-	13
Oscoda	98	-	-	27	3	9	-	-	-	2	-	6
Otsego	148	-	1	32	7	12	-	-	-	-	-	4
Ottawa	1,152	1	16	277	95	46	-	-	-	11	-	53
Presque Isle	163	-	2	48	11	15	-	-	-	1	-	14
Roscommon	280	-	-	67	15	25	-	-	-	2	-	11
Saginaw	1,778	1	31	445	105	124	-	-	-	22	-	81
St. Clair	1,277	-	13	332	70	111	-	-	-	16	-	59
St. Joseph	562	-	8	133	26	43	-	-	-	11	-	22
Sanilac	450	-	2	117	29	33	-	-	-	7	-	21
Schoolcraft	96	-	-	22	6	9	-	-	-	-	-	3
Shiawassee	558	1	6	144	32	37	-	-	-	8	-	32
Tuscola	447	-	1	115	28	34	-	-	-	2	-	22
Van Buren	627	-	7	157	39	38	-	-	-	31	-	29
Washtenaw	1,593	-	45	413	79	108	-	-	-	20	-	96
Wayne	20,857	23	583	4,685	1,165	1,453	-	-	-	172	-	796
Wexford	242	-	2	50	10	12	-	-	-	3	-	10
Co. Not Stated	1	-	-	-	-	-	-	-	-	-	-	-

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.14 (continued)
 Number of Deaths by Underlying Cause and County of Residence
 Michigan Residents, 1992

Area	Diabetes Mellitus	Nutritional Deficiencies	Major Cardiovascular Diseases						Pneumonia and Influenza	C.O.P.D. and Allied Diseases	Ulcer of Stomach and Duodenum	Chronic Liver Disease and Cirrhosis
			Total	Diseases of the Heart	Hypertension with or without Renal Disease	Cerebrovascular Disease	Athero-sclerosis	Other Diseases of Arteries, Arterioles, and Capillaries				
Michigan	2,114	148	34,024	26,863	341	5,087	774	959	2,697	3,076	228	947
Alcona	4	-	64	46	-	13	4	1	6	6	1	6
Alger	3	-	58	41	1	13	-	3	5	4	1	3
Allegan	20	3	297	233	5	42	10	7	24	32	1	8
Alpena	7	1	137	112	-	18	1	6	7	9	-	5
Antrim	4	-	96	73	1	15	5	2	15	8	1	1
Arenac	4	-	80	69	-	8	1	2	5	9	1	1
Baraga	1	-	47	39	1	7	-	-	5	2	-	2
Barry	13	-	163	126	1	25	3	8	16	13	1	4
Bay	36	1	463	379	5	49	17	13	19	41	3	15
Benzie	2	-	43	31	-	9	-	3	3	5	1	1
Berrien	35	3	630	462	9	115	23	21	51	52	5	12
Branch	16	-	154	123	2	23	1	5	11	18	2	6
Calhoun	39	4	587	431	8	105	24	19	64	67	6	12
Cass	11	-	209	160	2	37	3	7	19	20	3	4
Charlevoix	4	-	85	67	-	14	-	4	6	6	-	1
Cheboygan	5	-	101	82	-	14	-	3	10	7	-	2
Chippewa	7	-	113	91	1	18	1	2	10	21	1	4
Clare	7	-	143	116	-	21	-	6	15	18	1	3
Clinton	11	-	152	117	-	25	-	5	14	11	1	3
Crawford	3	3	48	34	1	8	5	-	9	5	1	2
Delta	15	1	156	117	2	27	3	7	6	10	3	4
Dickinson	11	2	146	104	4	23	6	9	6	12	2	5
Eaton	15	2	243	184	-	40	10	9	31	33	1	4
Emmet	6	-	93	77	3	10	-	3	12	15	-	3
Genesee	100	12	1,603	1,276	23	230	35	39	100	158	10	30
Gladwin	-	1	133	103	1	25	1	3	11	16	2	-
Gogebic	5	-	117	85	2	26	-	4	11	11	1	2
Grand Traverse	12	-	214	166	5	33	6	4	12	19	-	4
Gratiot	10	-	205	165	2	29	4	5	32	18	-	3
Hillsdale	18	-	140	116	3	18	1	2	18	20	1	4
Houghton	4	-	186	142	-	35	4	5	21	12	2	3
Huron	10	-	214	159	-	44	7	4	9	14	3	7
Ingham	46	1	750	593	9	108	15	25	68	82	6	9
Ionia	9	1	171	137	4	18	5	7	9	14	3	4
Iosco	7	1	142	107	-	22	7	6	6	17	1	2
Iron	7	1	89	66	-	16	3	4	14	11	-	2
Isabella	11	-	155	124	1	19	7	4	14	7	2	2
Jackson	27	5	552	439	2	82	12	17	53	77	3	9
Kalamazoo	35	5	661	511	7	114	15	14	85	85	9	19
Kalkaska	3	1	54	40	-	7	7	-	-	4	1	-
Kent	79	5	1,423	1,094	13	233	30	53	165	147	16	26

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.14 (continued)
 Number of Deaths by Underlying Cause and County of Residence
 Michigan Residents, 1992

Area	Diabetes Mellitus	Nutritional Deficiencies	Major Cardiovascular Diseases							Chronic Liver Disease and Cirrhosis	
			Total	Diseases of the Heart	Hypertension with or without Renal Disease	Cerebrovascular Disease	Athero-sclerosis	Other Diseases of Arteries, Arterioles, and Capillaries	Pneumonia and Influenza		C.O.P.D. and Allied Diseases	Ulcer of Stomach and Duodenum
Keweenaw	-	-	19	15	-	4	-	-	2	1	-
Lake	2	-	58	48	1	7	1	1	1	7	-
Lapeer	14	-	224	175	3	39	3	4	20	21	6
Leelanau	4	1	52	44	-	6	2	-	9	10	2
Lenawee	21	-	366	272	4	62	4	16	15	42	7
Livingston	13	2	307	248	2	40	2	10	15	33	13
Luce	1	-	27	16	-	10	-	1	6	3	1
Mackinac	2	-	45	38	-	6	-	1	2	6	2
Macomb	157	8	2,637	2,028	21	421	103	64	203	208	76
Manistee	9	-	136	105	1	17	9	4	8	10	3
Marquette	15	1	226	174	1	38	6	7	20	19	7
Mason	7	1	120	83	2	22	7	6	8	5	1
Mecosta	7	-	107	86	1	14	1	5	14	13	4
Menominee	4	2	119	89	2	18	8	2	7	10	9
Midland	9	-	200	146	2	29	8	15	18	22	5
Missaukee	4	-	55	44	-	9	-	2	4	11	-
Monroe	26	2	456	378	3	53	6	16	23	40	8
Montcalm	21	-	206	169	1	22	3	11	12	21	6
Montmorency	1	-	59	49	-	8	-	2	6	6	3
Muskegon	39	1	648	494	5	108	18	23	49	49	14
Newaygo	9	-	156	128	1	20	6	1	21	17	2
Oakland	174	15	3,577	2,820	28	583	59	87	226	290	91
Oceana	5	-	93	73	1	10	8	1	11	10	1
Ogemaw	9	1	114	90	2	17	5	-	8	12	3
Ontonagon	9	-	60	40	-	12	6	2	5	2	-
Osceola	5	-	89	73	-	11	1	4	5	12	-
Oscoda	2	-	47	40	-	7	-	-	2	6	1
Otsego	3	-	69	46	-	16	4	3	9	9	-
Ottawa	24	4	472	354	9	76	12	21	50	51	13
Presque Isle	2	-	63	46	1	13	-	3	9	8	5
Roscommon	9	1	137	109	1	18	2	7	5	19	3
Saginaw	57	2	765	569	7	139	23	27	49	68	16
StClair	34	2	588	472	4	89	8	15	32	58	11
StJoseph	32	2	227	178	2	36	6	5	26	30	3
Sanilac	19	1	185	138	3	34	2	8	6	15	5
Schoolcraft	4	1	39	34	-	3	-	2	7	3	-
Shiawassee	23	2	222	168	1	30	13	10	22	24	3
Tuscola	25	3	180	136	2	30	5	7	14	20	5
VanBuren	15	-	255	187	1	47	10	10	19	28	5
Washtenaw	51	3	617	484	9	100	11	13	53	52	15
Wayne	574	39	8,771	7,258	101	1,105	111	196	664	662	360
Wexford	11	1	114	82	1	20	5	6	15	7	1
Co.NotStated	-	-	-	-	-	-	-	-	-	-	-

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.14 (continued)
 Number of Deaths by Underlying Cause and County of Residence
 Michigan Residents, 1992

Area	Nephritis, Nephrotic Syndrome & Nephrosis	Complica- tions of Preg- nancy, Child- birth and the Puerperium	Congenital Anomalies	Certain Conditions Originating in the Peri- natal Period	Symptoms, Signs, and Ill-defined Conditions	All Other Disease	Accidents			Suicide	Homicide and Legal Inter- vention	All Other External Causes
							Total	Motor Vehicle	All Other			
Michigan	887	15	434	793	416	7,346	2,844	1,426	1,418	1,063	1,047	108
Alcona	3	-	-	-	-	12	5	5	-	3	-	-
Alger	-	-	-	-	-	11	4	1	3	2	2	-
Allegan	7	-	3	4	6	58	30	16	14	12	-	-
Alpena	-	-	1	-	1	28	7	4	3	5	-	-
Antrim	3	-	-	-	3	20	13	8	5	2	-	-
Arenac	3	-	2	-	-	22	5	2	3	1	-	-
Baraga	-	-	-	1	-	11	4	3	1	1	-	-
Barry	2	-	3	1	4	38	18	9	9	7	3	-
Bay	11	-	8	6	6	67	54	31	23	13	6	-
Benzie	-	-	-	-	1	12	3	2	1	2	-	-
Berrien	22	-	12	11	14	132	46	21	25	13	16	-
Branch	6	-	1	3	1	34	20	12	8	5	1	-
Calhoun	9	-	5	5	8	145	55	26	29	19	10	-
Cass	5	-	2	-	4	28	32	22	10	3	4	-
Charlevoix	2	-	1	2	1	29	12	5	7	3	1	-
Cheboygan	-	-	-	1	2	26	8	6	2	5	1	1
Chippewa	1	-	-	-	3	37	9	5	4	4	2	-
Clare	4	-	4	1	2	20	8	4	4	4	1	-
Clinton	5	-	4	3	2	51	21	14	7	3	-	-
Crawford	1	-	1	1	1	10	10	3	7	2	-	-
Delta	4	-	1	2	1	39	11	7	4	5	-	-
Dickinson	6	-	-	2	-	30	16	4	12	4	-	-
Eaton	5	-	2	-	2	60	30	11	19	8	-	-
Emmet	2	-	3	3	1	34	8	6	2	2	2	-
Genesee	54	1	24	33	25	312	146	69	77	33	57	4
Gladwin	2	-	1	-	1	22	7	6	1	4	-	-
Gogebic	3	-	-	-	-	29	4	2	2	3	2	-
Grand Traverse	5	-	5	5	2	55	19	9	10	7	-	-
Gratiot	4	-	4	2	2	30	11	7	4	5	1	-
Hillsdale	10	-	2	1	5	40	28	15	13	6	3	-
Houghton	9	-	-	-	-	40	18	13	5	6	1	-
Huron	5	-	2	3	1	31	16	10	6	7	-	-
Ingham	12	-	7	11	20	202	73	37	36	28	11	1
Ionia	4	-	1	5	2	40	22	16	6	3	-	-
Iosco	3	-	-	-	-	23	11	4	7	4	-	-
Iron	1	-	-	-	-	25	8	2	6	1	-	-
Isabella	1	-	3	3	1	33	22	12	10	4	2	-
Jackson	13	-	8	9	7	128	49	28	21	25	5	1
Kalamazoo	17	-	11	15	10	198	63	29	34	19	4	-
Kalkaska	1	-	1	-	1	8	4	3	1	2	-	-
Kent	37	-	32	30	29	381	137	70	67	49	21	3

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.14 (continued)
 Number of Deaths by Underlying Cause and County of Residence
 Michigan Residents, 1992

Area	Nephritis, Nephrotic Syndrome & Nephrosis	Complications of Pregnancy, Childbirth and the Puerperium	Congenital Anomalies	Certain Conditions Originating in the Perinatal Period	Symptoms, Signs, and Ill-defined Conditions	All Other Disease	Accidents			Suicide	Homicide and Legal Intervention	All Other External Causes
							Total	Motor Vehicle	All Other			
Keweenaw	-	-	-	-	-	1	-	-	-	2	-	-
Lake	2	-	1	1	-	5	1	2	-	2	3	-
Lapeer	4	-	2	6	4	32	22	28	4	4	2	1
Leelanau	1	-	1	-	1	12	3	6	3	1	-	-
Lenawee	7	-	1	7	-	69	26	34	8	7	1	1
Livingston	8	-	1	2	2	55	18	30	12	19	2	1
Luce	2	-	1	2	-	10	2	3	1	-	1	-
Mackinac	3	-	1	2	-	22	2	4	2	4	1	-
Macomb	68	-	25	30	13	483	83	163	80	78	32	4
Manistee	-	-	7	4	2	29	1	6	5	4	-	-
Marquette	6	-	7	7	1	65	7	17	10	9	1	1
Mason	4	-	3	-	2	18	9	15	6	5	-	-
Mecosta	2	-	2	1	1	20	4	15	11	3	-	-
Menominee	8	-	-	1	-	20	2	9	7	3	-	-
Midland	4	-	9	4	1	52	9	17	8	13	2	1
Missaukee	-	1	-	1	1	5	9	10	1	2	1	-
Monroe	6	-	6	1	5	70	17	36	19	15	2	1
Montcalm	7	-	1	2	2	40	14	22	8	6	2	-
Montmorency	1	-	1	-	-	11	2	2	1	-	1	-
Muskegon	14	-	3	12	5	143	20	55	35	22	9	-
Newaygo	2	-	1	4	2	21	12	18	6	5	1	-
Oakland	90	2	45	75	33	708	94	204	110	141	59	22
Oceana	2	-	-	1	1	29	2	8	6	4	-	-
Ogemaw	3	-	1	2	1	13	5	12	7	2	-	-
Ontonagon	2	-	1	-	-	13	3	6	3	2	1	-
Oseola	1	-	-	3	1	21	5	12	7	3	2	-
Oscoda	3	-	-	-	-	8	1	3	2	-	-	-
Osego	2	-	1	-	-	13	7	7	1	-	-	-
Ottawa	13	-	9	2	6	131	34	57	23	18	5	1
Presque Isle	5	-	-	2	-	14	1	3	2	-	-	-
Roscommon	2	-	1	1	-	22	2	5	3	4	1	2
Saginaw	18	-	11	34	7	140	30	64	34	24	39	3
St. Clair	14	-	8	9	2	96	24	43	19	22	8	-
St. Joseph	6	-	4	5	3	46	13	27	14	7	1	-
Sanilac	6	-	1	6	4	53	14	24	10	4	1	-
Schoolcraft	3	-	-	-	1	11	2	3	1	2	1	-
Shiawassee	5	-	1	2	1	55	24	37	13	6	1	-
Tuscola	7	-	3	1	-	35	12	23	11	13	-	-
Van Buren	4	1	7	3	3	64	21	44	23	5	5	-
Washtenaw	10	1	8	25	9	185	26	66	40	26	9	2
Wayne	259	9	116	374	133	1,929	283	628	345	238	696	58
Wexford	1	-	2	-	-	26	3	9	6	3	-	-
Co. Not Stated	-	-	-	-	-	-	-	-	-	-	-	-

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.15
 Reported Cases of Certain Communicable Diseases by County
 Michigan Residents, 1992

Area	Total	Gonorrhoea	Chicken Pox	Hepatitis (all types)	Salmonella Infections	Tuberculosis	Syphilis	Mumps	Dysentery Bacillary	Measles	Rubella	Meningococcal Infections	Whooping Cough
Michigan	60,155	21,470	34,805	1,238	872	496	1,022	85	49	13	2	87	16
Alcona	3	-	-	-	1	1	1	-	-	-	-	-	-
Alger	-	-	-	-	4	-	-	-	-	-	-	-	-
Allegan	185	12	161	8	4	-	-	-	-	-	-	-	-
Alpena	46	-	39	1	4	1	-	-	-	-	-	-	1
Antrim	17	-	16	-	1	-	-	-	-	-	-	-	-
Arenac	-	-	-	-	-	-	-	-	-	-	-	-	-
Baraga	1	-	-	-	-	-	1	-	-	-	-	-	-
Barry	157	8	141	2	4	1	-	-	-	-	-	1	-
Bay	424	24	387	7	4	-	1	-	-	-	-	1	-
Benzie	21	-	16	3	-	2	-	-	-	-	-	-	-
Berrien	2,281	928	1,247	22	17	12	50	1	3	1	-	-	-
Branch	109	5	98	1	3	-	-	1	1	-	-	-	-
Calhoun	402	247	84	28	11	14	8	2	4	-	-	4	-
Cass	276	79	179	16	2	-	-	-	-	-	-	-	-
Charlevoix	123	-	119	1	3	-	-	-	-	-	-	-	-
Cheboygan	28	-	24	1	1	1	-	1	-	-	-	-	-
Cheboygan	28	-	24	1	1	1	-	1	-	-	-	-	-
Chippewa	68	4	53	1	6	3	1	1	1	-	-	1	-
Clare	92	-	86	1	2	1	-	1	1	-	-	-	-
Clinton	33	6	16	-	5	1	-	2	2	-	-	1	-
Crawford	106	1	105	-	-	-	-	-	-	-	-	-	-
Delta	112	-	105	4	1	2	-	-	-	-	-	-	-
Dickinson	52	-	49	1	-	-	-	2	-	-	-	-	-
Eaton	650	19	619	2	3	4	2	1	-	-	-	-	-
Emmet	10	-	5	2	3	-	-	-	-	-	-	-	-
Genesee	2,150	1,592	470	27	21	15	22	-	-	-	-	2	1
Gladwin	18	-	17	-	1	-	-	-	-	-	-	-	-
Gogebic	41	-	40	-	-	-	-	-	-	1	-	-	-
Grand Traverse	169	1	150	6	9	-	-	-	-	-	-	2	1
Graffiot	280	9	264	2	1	-	-	3	-	-	-	1	-
Hillsdale	126	5	100	13	4	2	-	1	1	-	-	-	-
Houghton	106	-	104	1	1	-	-	-	-	-	-	-	-
Huron	59	2	54	1	-	2	-	-	-	-	-	-	-
Ingham	1,513	792	630	15	49	12	3	1	3	-	2	2	4
Ionia	188	5	178	3	2	-	-	-	-	-	-	-	-
Iosco	41	1	32	-	5	2	-	-	-	-	-	1	-
Iron	6	-	6	-	-	-	-	-	-	-	-	-	-
Isabella	447	11	418	-	8	-	-	-	9	-	-	1	-
Jackson	381	154	140	58	14	4	8	1	2	-	-	1	-
Kalamazoo	1,005	535	380	47	28	7	4	-	1	-	-	3	-
Kalkaska	41	-	38	1	1	-	-	-	1	-	-	1	-
Kent	3,060	1,442	1,429	68	33	22	60	1	2	-	-	3	-

Source: Bureau of Infectious Disease Control, Disease Control Division, MDPH

Table 4.15 (continued)
 Reported Cases of Certain Communicable Diseases by County
 Michigan Residents, 1992

Area	Total	Gonorrhea	Chicken Pox	Hepatitis (all types)	Salmonella Infections	Tuberculosis	Syphilis	Mumps	Dysentery Bacillary	Measles	Rubella	Meningococcal Infections	Whooping Cough
Keweenaw	-	-	-	-	-	-	-	-	-	-	-	-	-
Lake	6	4	-	-	2	-	-	-	-	-	-	-	-
Lapeer	401	7	384	1	3	1	-	2	1	-	-	2	-
Leelanau	70	-	65	1	8	1	-	1	1	-	-	-	-
Lenawee	307	15	268	13	8	2	-	-	-	-	-	1	-
Livingston	272	9	234	12	7	2	1	3	-	-	-	4	-
Luce	-	-	-	-	-	-	-	-	-	-	-	-	-
Mackinac	1	1	-	-	-	-	-	-	-	-	-	-	-
Macomb	3,539	127	3,228	73	64	22	16	-	2	-	-	6	1
Manistee	19	3	14	-	1	-	1	-	-	-	-	-	-
Marquette	265	9	219	24	8	2	-	-	-	-	-	3	-
Mason	14	5	5	-	1	2	-	-	-	-	-	1	-
Mecosta	135	23	107	1	3	1	-	-	-	-	-	-	-
Menominee	174	1	171	1	1	-	-	-	-	-	-	-	-
Midland	417	3	402	1	9	3	-	-	-	-	-	-	-
Missaukee	99	-	96	2	1	-	-	-	-	-	-	-	-
Monroe	1,197	29	1,141	10	11	2	-	3	-	-	-	-	1
Montcalm	93	3	78	6	4	1	2	-	-	-	-	-	-
Montmorency	15	-	5	5	4	1	-	-	-	-	-	-	-
Muskegon	1,373	884	208	176	8	16	81	-	-	-	-	-	-
Newaygo	104	9	75	8	5	1	-	1	-	-	-	4	1
Oakland	7,041	1,261	5,397	93	167	50	27	21	5	10	-	8	2
Oceana	77	2	70	3	2	-	-	-	-	-	-	-	-
Ogemaw	80	1	77	2	-	-	-	-	-	-	-	-	-
Ontonagon	4	-	3	-	-	1	-	-	-	-	-	-	-
Osceola	1	1	-	-	-	-	-	-	-	-	-	-	-
Oscoda	1	1	-	-	-	-	-	-	-	-	-	-	-
Otsego	30	-	25	1	2	-	-	1	-	-	-	1	-
Ottawa	732	41	638	26	17	2	2	-	1	-	-	4	1
Presque Isle	8	-	8	-	-	-	-	-	-	-	-	-	-
Roscommon	53	3	45	4	-	1	-	-	-	-	-	-	-
Saginaw	1,456	886	532	4	12	7	14	-	1	-	-	-	-
St. Clair	1,522	91	1,396	13	10	6	3	-	-	-	-	3	-
St. Joseph	327	15	291	15	5	1	-	-	-	-	-	-	-
Sanilac	27	6	13	1	4	-	-	2	-	-	-	1	-
Schoolcraft	32	-	32	-	-	-	-	-	-	-	-	-	-
Shiawassee	176	5	162	2	5	-	-	-	-	-	-	-	-
Tuscola	51	-	39	6	4	2	-	-	-	-	-	-	1
Van Buren	130	75	49	-	-	1	4	-	-	-	-	-	-
Washtenaw	449	279	61	19	43	11	27	1	3	1	-	1	2
Wayne	24,473	11,789	11,113	374	208	249	682	32	6	-	-	20	-
Wexford	157	-	155	-	-	-	1	-	-	-	-	1	-

Source: Bureau of Infectious Disease Control, Disease Control Division, MDPH

Table 4.16
Number of Deaths by Cause
Michigan Residents, 1992

ICD List Number	Cause of Death	Number
I. INFECTIOUS AND PARASITIC DISEASES (001-139)		
8	Intestinal infections due to other organisms	7
9	Ill-defined intestinal infections	3
11	Pulmonary tuberculosis	37
12	Other respiratory tuberculosis	1
13	Tuberculosis of meninges and central nervous system	1
17	Tuberculosis of other organs	5
18	Miliary tuberculosis	5
27	Other zoonotic bacterial diseases	1
31	Diseases due to other mycobacteria	4
36	Meningococcal infection	5
38	Septicemia	622
40	Other bacterial diseases	4
41	Bacterial infection in conditions classified elsewhere and of unspecified site	15
42	Human Immunodeficiency Virus Infection With Specified Conditions	529
43	Human Immunodeficiency Virus Infection Causing Other Specified Conditions	18
44	Other Human Immunodeficiency Virus Infection	26
46	Slow virus infection of central nervous system	17
47	Meningitis due to enterovirus	1
48	Other enterovirus diseases of central nervous system	1
49	Other non-arthropod-borne viral diseases of central nervous system	9
52	Chickenpox	3
53	Herpes zoster	2
54	Herpes simplex	3
70	Viral hepatitis	55
77	Other diseases of conjunctiva due to viruses and Chlamydiae	1
78	Other diseases due to viruses and Chlamydiae	5
79	Viral infection in conditions classified elsewhere and of unspecified site	8
93	Cardiovascular syphilis	1
94	Neurosyphilis	1
97	Other and unspecified syphilis	1
112	Candidiasis	24
114	Coccidioidomycosis	1
115	Histoplasmosis	1
117	Other mycoses	21
127	Other intestinal helminthiases	3
128	Other and unspecified helminthiases	1
135	Sarcoidosis	27
136	Other and unspecified infections and parasitic diseases	28
137	Late effects of tuberculosis	7
138	Late effects of acute poliomyelitis	7
139	Late effects of other infectious and parasitic diseases	1
II. NEOPLASMS (140-239)		
140	Malignant neoplasm of lip	1
141	Malignant neoplasm of tongue	66
142	Malignant neoplasm of major salivary glands	19
143	Malignant neoplasm of gum	6
144	Malignant neoplasm of floor of mouth	13
145	Malignant neoplasm of other and unspecified parts of mouth	49
146	Malignant neoplasm of oropharynx	43
147	Malignant neoplasm of nasopharynx	17

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.16 Number of Deaths by Cause Michigan Residents, 1992 (continued)

ICD List Number	Cause of Death	Number
148	Malignant neoplasm of hypopharynx	23
149	Malignant neoplasm of other and ill-defined sites within the lip, oral cavity and pharynx	43
150	Malignant neoplasm of oesophagus	404
151	Malignant neoplasm of stomach	490
152	Malignant neoplasm of small intestine, including duodenum	24
153	Malignant neoplasm of colon	1,746
154	Malignant neoplasm of rectum, rectosigmoid junction and anus	295
155	Malignant neoplasm of liver and intrahepatic bile ducts	306
156	Malignant neoplasm of gallbladder and extrahepatic bile ducts	152
157	Malignant neoplasm of pancreas	944
158	Malignant neoplasm of retroperitoneum and peritoneum	30
159	Malignant neoplasm of other and ill-defined sites within the digestive organs and peritoneum	61
160	Malignant neoplasm of nasal cavities, middle ear and accessory sinuses	19
161	Malignant neoplasm of larynx	165
162	Malignant neoplasm of trachea, bronchus and lung	5,509
163	Malignant neoplasm of pleura	14
164	Malignant neoplasm of thymus, heart and mediastinum	17
170	Malignant neoplasm of bone and articular cartilage	46
171	Malignant neoplasm of connective and other soft tissue	93
172	Malignant melanoma of skin	165
173	Other malignant neoplasm of skin	53
174	Malignant neoplasm of female breast	1,583
175	Malignant neoplasm of male breast	14
179	Malignant neoplasm of uterus, part unspecified	114
180	Malignant neoplasm of cervix uteri	169
181	Malignant neoplasm of placenta	1
182	Malignant neoplasm of body of uterus	136
183	Malignant neoplasm of ovary and other uterine adnexa	475
184	Malignant neoplasm of other and unspecified female genital organs	49
185	Malignant neoplasm of prostate	1,299
186	Malignant neoplasm of testis	17
187	Malignant neoplasm of penis and other male genital organs	9
188	Malignant neoplasm of bladder	421
189	Malignant neoplasm of kidney and other and unspecified urinary organs	420
190	Malignant neoplasm of eye	9
191	Malignant neoplasm of brain	470
192	Malignant neoplasm of other and unspecified parts of nervous system	15
193	Malignant neoplasm of thyroid gland	37
194	Malignant neoplasm of other endocrine glands and related structures	26
195	Malignant neoplasm of other and ill-defined sites	153
199	Malignant neoplasm without specification of site	1,091
200	Lymphosarcoma and reticulosarcoma	47
201	Hodgkin's disease	68
202	Other malignant neoplasm of lymphoid and histiocytic tissue	699
203	Multiple myeloma and immunoproliferative neoplasms	368
204	Lymphoid leukemia	216
205	Myeloid leukemia	277
206	Monocytic leukemia	14
207	Other specified leukemia	5
208	Leukemia of unspecified cell type	202
211	Benign neoplasm of other parts of digestive system	5
212	Benign neoplasm of respiratory and intrathoracic organs	3
214	Lipoma	1
215	Other benign neoplasm of connective and other soft tissue	1

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.16 Number of Deaths by Cause Michigan Residents, 1992 (continued)

ICD List Number	Cause of Death	Number
225	Benign neoplasm of brain and other parts of nervous system	32
227	Benign neoplasm of other endocrine glands and related structures	10
228	Haemangioma and lymphangioma, any site	1
229	Benign neoplasm of other and unspecified sites	3
233	Carcinoma in situ of breast and genitourinary system	1
235	Neoplasm of uncertain behavior of digestive and respiratory systems	7
236	Neoplasm of uncertain behavior of genitourinary organs	1
237	Neoplasm of uncertain behavior of endocrine glands and nervous system	6
238	Neoplasm of uncertain behavior of other and unspecified sites and tissues	45
239	Neoplasm of unspecified nature	110
III. ENDOCRINE, NUTRITIONAL AND METABOLIC DISEASES AND IMMUNITY DISORDERS (240-279)		
242	Thyrotoxicosis with or without goitre	8
244	Acquired hypothyroidism	34
245	Thyroiditis	1
250	Diabetes mellitus	2,114
251	Other disorders of pancreatic internal secretion	9
252	Disorders of parathyroid gland	4
253	Disorders of the pituitary gland and its hypothalamic control	1
255	Disorders of adrenal glands	10
259	Other endocrine disorders	1
260	Kwashiorkor	1
261	Nutritional marasmus	10
263	Other and unspecified protein-calorie malnutrition	131
268	Vitamin D deficiency	1
269	Other nutritional deficiencies	5
270	Disorders of amino-acid transport and metabolism	1
271	Disorders of carbohydrate transport and metabolism	1
272	Disorders of lipid metabolism	98
273	Disorders of plasma protein metabolism	16
274	Gout	2
275	Disorders of mineral metabolism	8
276	Disorders of fluid, electrolyte and acid-base balance	210
277	Other and unspecified disorders of metabolism	75
278	Obesity and other hyperalimentation	74
279	Disorders involving the immune mechanism	32
IV. DISEASES OF BLOOD AND BLOOD-FORMING ORGANS (280-289)		
280	Iron deficiency anemias	2
281	Other deficiency anemias	5
282	Hereditary hemolytic anemias	20
283	Acquired hemolytic anemias	3
284	Aplastic anemias	44
285	Other and unspecified anemias	53
286	Coagulation defects	56
287	Purpura and other hemorrhagic conditions	19
288	Diseases of white blood cells	15
289	Other diseases of blood and blood-forming organs	100
V. MENTAL DISORDERS (290-319)		
290	Senile and presenile organic psychotic conditions	314
291	Alcoholic psychoses	10
292	Drug psychoses	1

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.16 Number of Deaths by Cause Michigan Residents, 1992 (continued)

ICD List Number	Cause of Death	Number
294	Other organic psychotic conditions (chronic)	1
295	Schizophrenic psychoses	8
296	Affective psychosis	1
298	Other nonorganic psychoses	182
300	Neurotic disorders	2
303	Alcohol dependence syndrome	175
304	Drug dependence	5
305	Nondependent abuse of drugs	163
307	Special symptoms or syndromes not elsewhere classified	8
308	Acute reaction to stress	3
309	Adjustment reaction	1
310	Specific nonpsychotic mental disorders following organic brain damage	111
311	Depressive disorder, not elsewhere classified	7
318	Other specified mental retardation	7
319	Unspecified mental retardation	11
VI. DISEASES OF THE NERVOUS SYSTEM AND SENSE ORGANS (320-389)		
320	Bacterial meningitis	15
322	Meningitis of unspecified cause	11
323	Encephalitis, myelitis and encephalomyelitis	8
324	Intracranial and intraspinal abscess	2
326	Late effects of intracranial abscess or pyogenic infection	1
330	Cerebral degenerations usually manifest in childhood	5
331	Other cerebral degenerations	461
332	Parkinson's disease	258
333	Other extrapyramidal disease and abnormal movement disorders	32
334	Spinocerebellar disease	12
335	Anterior horn cell disease	165
336	Other diseases of spinal cord	5
337	Disorders of the autonomic nervous system	1
340	Multiple sclerosis	96
341	Other demyelinating diseases of central nervous system	3
342	Hemiplegia	7
343	Infantile cerebral palsy	29
344	Other paralytic syndromes	27
345	Epilepsy	108
346	Migraine	2
348	Other conditions of brain	111
349	Other and unspecified disorders of the nervous system	6
355	Mononeuritis of lower limb	1
356	Hereditary and idiopathic peripheral neuropathy	22
357	Inflammatory and toxic neuropathy	8
358	Myoneural disorders	18
359	Muscular dystrophies and other myopathies	48
362	Other retinal disorders	1
382	Suppurative and unspecified otitis media	1
VII. DISEASES OF THE CIRCULATORY SYSTEM (390-459)		
390	Rheumatic fever without mention of heart involvement	1
394	Diseases of mitral valve	98
395	Diseases of aortic valve	5
396	Diseases of mitral and aortic valves	36
397	Diseases of other endocardial structures	16
398	Other rheumatic heart disease	46

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.16 Number of Deaths by Cause Michigan Residents, 1992 (continued)

ICD List Number	Cause of Death	Number
401	Essential hypertension	140
402	Hypertensive heart disease	673
403	Hypertensive renal disease	201
404	Hypertensive heart and renal disease	90
410	Acute myocardial infarction	9,565
411	Other acute and subacute form of ischemic heart disease	26
412	Old myocardial infarction	27
413	Angina pectoris	34
414	Other forms of chronic ischemic heart disease	8,901
415	Acute pulmonary heart disease	248
416	Chronic pulmonary heart disease	98
417	Other diseases of pulmonary circulation	1
420	Acute pericarditis	2
421	Acute and subacute endocarditis	27
422	Acute myocarditis	13
423	Other diseases of pericardium	21
424	Other diseases of endocardium	447
425	Cardiomyopathy	894
426	Conduction disorders	25
427	Cardiac dysrhythmias	769
428	Heart failure	1,407
429	Ill-defined descriptions and complications of heart disease	3,393
430	Subarachnoid hemorrhage	291
431	Intracerebral hemorrhage	626
432	Other and unspecified intracranial hemorrhage	139
433	Occlusion and stenosis of precerebral arteries	60
434	Occlusion of cerebral arteries	761
435	Transient cerebral ischemia	18
436	Acute but ill-defined cerebrovascular disease	2,480
437	Other and ill-defined cerebrovascular disease	332
438	Late effects of cerebrovascular disease	380
440	Atherosclerosis	774
441	Aortic aneurysm	641
442	Other aneurysm	20
443	Other peripheral vascular disease	158
444	Arterial embolism and thrombosis	44
446	Polyarteritis nodosa and allied conditions	50
447	Other disorders of arteries and arterioles	45
448	Diseases of capillaries	1
451	Phlebitis and thrombophlebitis	71
452	Portal vein thrombosis	4
453	Other venous embolism and thrombosis	18
454	Varicose veins of lower extremities	7
456	Varicose veins of other sites	10
457	Noninfective disorders of lymphatic channels	2
458	Hypotension	21
459	Other disorders of circulatory system	34
VIII. DISEASES OF THE RESPIRATORY SYSTEM (460-519)		
464	Acute laryngitis and tracheitis	5
465	Acute upper respiratory infections of multiple or unspecified sites	3
466	Acute bronchitis and bronchiolitis	20
473	Chronic sinusitis	3
474	Chronic disease of tonsils and adenoids	1

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.16 Number of Deaths by Cause Michigan Residents, 1992 (continued)

ICD List Number	Cause of Death	Number
478	Other diseases of upper respiratory tract	5
480	Viral pneumonia	20
481	Pneumococcal pneumonia	64
482	Other bacterial pneumonia	76
483	Pneumonia due to other specified organism	6
485	Bronchopneumonia, organism unspecified	108
486	Pneumonia, organism unspecified	2,386
487	Influenza	37
490	Bronchitis, not specified as acute or chronic	18
491	Chronic bronchitis	110
492	Emphysema	691
493	Asthma	165
494	Bronchiectasis	27
495	Extrinsic allergic alveolitis	2
496	Chronic airways obstruction, not elsewhere classified	2,063
500	Coalworkers' pneumoconiosis	4
501	Asbestosis	5
502	Pneumoconiosis due to other silica or silicates	4
505	Pneumoconiosis, unspecified	2
506	Respiratory conditions due to chemical fumes and vapors	1
507	Pneumonitis due to solids and liquids	248
510	Empyema	11
511	Pleurisy	35
512	Pneumothorax	12
513	Abscess of lung and mediastinum	12
514	Pulmonary congestion and hypostasis	16
515	Postinflammatory pulmonary fibrosis	253
516	Other alveolar and parietoalveolar pneumopathy	39
518	Other diseases of lung	151
519	Other diseases of respiratory system	27
IX. DISEASES OF THE DIGESTIVE SYSTEM (520-579)		
522	Diseases of pulp and periapical tissues	1
527	Diseases of the salivary glands	3
530	Diseases of oesophagus	74
531	Gastric ulcer	85
532	Duodenal ulcer	64
533	Peptic ulcer, site unspecified	79
534	Gastrojejunal ulcer	2
535	Gastritis and duodenitis	30
536	Disorders of function of stomach	3
537	Other disorders of stomach and duodenum	15
540	Acute appendicitis	15
541	Appendicitis, unqualified	3
542	Other appendicitis	1
550	Inguinal hernia	12
551	Other hernia of abdominal cavity, with gangrene	4
552	Other hernia of abdominal cavity with obstruction, without mention of gangrene	10
553	Other hernia of abdominal cavity without mention of obstruction or gangrene	20
555	Regional enteritis	20
556	Idiopathic proctocolitis	12
557	Vascular insufficiency of intestine	263
558	Other noninfective gastroenteritis and colitis	45
560	Intestinal obstruction without mention of hernia	202

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.16 Number of Deaths by Cause Michigan Residents, 1992 (continued)

ICD List Number	Cause of Death	Number
562	Diverticula of intestine	117
564	Functional digestive disorders, not elsewhere classified	9
565	Anal fissure and fistula	1
566	Abscess of anal and rectal regions	4
567	Peritonitis	65
568	Other disorders of peritoneum	5
569	Other disorders of intestine	78
570	Acute and subacute necrosis of liver	11
571	Chronic liver disease and cirrhosis	947
572	Liver abscess and sequelae of chronic liver disease	128
573	Other disorders of liver	58
574	Cholelithiasis	53
575	Other disorders of gallbladder	53
576	Other disorders of biliary tract	39
577	Diseases of pancreas	113
578	Gastrointestinal hemorrhage	221
579	Intestinal malabsorption	5
X. DISEASES OF THE GENITOURINARY SYSTEM (580-629)		
580	Acute glomerulonephritis	4
581	Nephrotic syndrome	2
582	Chronic glomerulonephritis	39
583	Nephritis and nephropathy, not specified as acute or chronic	12
584	Acute renal failure	147
585	Chronic renal failure	241
586	Renal failure, unspecified	442
590	Infections of kidney	36
591	Hydronephrosis	3
592	Calculus of kidney and ureter	13
593	Other disorders of kidney and ureter	110
595	Cystitis	3
596	Other disorders of bladder	11
599	Other disorders of urethra and urinary tract	416
600	Hyperplasia of prostate	7
601	Inflammatory diseases of prostate	1
602	Other disorders of prostate	4
604	Orchitis and epididymitis	1
608	Other disorders of male genital organs	3
611	Other disorders of breast	1
614	Inflammatory disease of ovary, fallopian tube, pelvic cellular tissue and peritoneum	3
617	Endometriosis	1
618	Genital prolapse	1
619	Fistulae involving female genital tract	2
XI. COMPLICATIONS OF PREGNANCY, CHILDBIRTH, AND THE PUERPERIUM (630-676)		
633	Ectopic pregnancy	1
641	Antepartum hemorrhage, abruptio placentae, and placenta praevia	1
642	Hypertension complicating pregnancy, childbirth and the puerperium	3
646	Other complications of pregnancy, not elsewhere classified	1
666	Postpartum haemorrhage	2
671	Venous complications in pregnancy and the puerperium	3
673	Obstetrical pulmonary embolism	2

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.16 Number of Deaths by Cause Michigan Residents, 1992 (continued)

ICD List Number	Cause of Death	Number
674	Other and unspecified complications of the puerperium, not elsewhere classified	2
XII. DISEASES OF THE SKIN AND SUBCUTANEOUS TISSUE (680-709)		
681	Cellulitis and abscess of finger and toe	1
682	Other cellulitis and abscess	20
686	Other local infections of skin and subcutaneous tissue	6
692	Contact dermatitis and other eczema	1
694	Bullous dermatoses	3
695	Erythematous conditions	10
696	Psoriasis and similar disorders	1
707	Chronic ulcer of skin	97
XIII. DISEASES OF THE MUSCULOSKELETAL SYSTEM AND CONNECTIVE TISSUE (710-739)		
710	Diffuse diseases of connective tissue	82
711	Arthropathy associated with infections	5
714	Rheumatoid arthritis and other inflammatory polyarthropathies	60
715	Osteoarthritis and allied disorders	18
716	Other and unspecified arthropathies	6
718	Other derangement of joint	2
720	Ankylosing spondylitis and other inflammatory spondylopathies	3
721	Spondylosis and allied disorders	2
722	Intervertebral disc disorders	2
724	Other and unspecified disorders of back	3
725	Polymyalgia rheumatica	2
728	Disorders of muscle, ligament and fascia	5
729	Other disorders of soft tissues	11
730	Osteomyelitis, periostitis and other infections involving bone	21
731	Osteitis deformans and osteopathies associated with other disorders classified elsewhere	6
732	Osteochondropathies	2
733	Other disorders of bone and cartilage	23
737	Curvature of spine	17
XIV. CONGENITAL ANOMALIES (740-759)		
740	Anencephalus and similar anomalies	12
741	Spina bifida	6
742	Other congenital anomalies of nervous system	48
745	Bulbus cordis anomalies and anomalies of cardiac septal closure	42
746	Other congenital anomalies of heart	101
747	Other congenital anomalies of circulatory system	36
748	Congenital anomalies of respiratory system	49
750	Other congenital anomalies of upper alimentary tract	4
751	Other congenital anomalies of digestive system	4
753	Congenital anomalies of urinary system	32
755	Other congenital anomalies of limbs	1
756	Other congenital musculoskeletal anomalies	23
757	Congenital anomalies of the integument	2
758	Chromosomal anomalies	44
759	Other and unspecified congenital anomalies	30
XV. CERTAIN CONDITIONS ORIGINATING IN THE PERINATAL PERIOD (760-779)		
760	Fetus or newborn affected by maternal conditions which may be unrelated to present pregnancy	10

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.16 Number of Deaths by Cause Michigan Residents, 1992 (continued)

ICD List Number	Cause of Death	Number
761	Fetus or newborn affected by maternal complications of pregnancy	95
762	Fetus or newborn affected by complications of placenta, cord and membranes	38
763	Fetus or newborn affected by other complications of labor and delivery	2
764	Slow fetal growth and fetal malnutrition	3
765	Disorders relating to short gestation and unspecified low birthweight	285
767	Birth trauma	10
768	Intrauterine hypoxia and birth asphyxia	25
769	Respiratory distress syndrome	111
770	Other respiratory conditions of fetus and newborn	93
771	Infections specific to the perinatal period	37
772	Fetal and neonatal hemorrhage	11
775	Endocrine and metabolic disturbances specific to the fetus and newborn	2
776	Hematological disorders of fetus and newborn	2
777	Perinatal disorders of digestive system	22
778	Conditions involving the integument and temperature regulation of fetus and newborn	5
779	Other and ill-defined conditions originating in the perinatal period	42
XVI. SYMPTOMS, SIGNS AND ILL-DEFINED CONDITIONS (780-799)		
780	General symptoms	7
783	Symptoms concerning nutrition, metabolism and development	1
785	Symptoms involving cardiovascular system	23
786	Symptoms involving respiratory system and other chest symptoms	3
789	Other symptoms involving abdomen and pelvis	5
790	Nonspecific findings on examination of blood	1
791	Nonspecific findings on examination of urine	1
797	Senility without mention of psychosis	8
798	Sudden death, cause unknown	264
799	Other ill-defined and unknown causes of morbidity and mortality	103
XVII. EXTERNAL CAUSES OF INJURY AND POISONING (E800-E999)		
E804	Fall in, on or from railway train	1
E805	Hit by rolling stock	16
E810	Motor vehicle traffic accident involving collision with train	29
E812	Other motor vehicle traffic accident involving collision with another motor vehicle	597
E813	Motor vehicle traffic accident involving collision with other vehicle	32
E814	Motor vehicle traffic accident involving collision with pedestrian	198
E815	Other motor vehicle traffic accident involving collision on the highway	175
E816	Motor vehicle traffic accident due to loss of control, without collision on the highway	193
E817	Noncollision motor vehicle traffic accident while boarding or alighting	1
E818	Other noncollision motor vehicle traffic accident	19
E819	Motor vehicle traffic accident of unspecified nature	136
E820	Nontraffic accident involving motor-driven snow vehicle	15
E821	Nontraffic accident involving other off-road motor vehicle	7
E822	Other motor vehicle nontraffic accident involving collision with moving object	15
E823	Other motor vehicle nontraffic accident involving collision with stationary object	4
E825	Other motor vehicle nontraffic accident of other and unspecified nature	5
E826	Pedal cycle accident	1
E828	Accident involving animal being ridden	1
E830	Accident to watercraft causing submersion	11
E831	Accident to watercraft causing other injury	1
E832	Other accidental submersion or drowning in water transport accident	12
E838	Other and unspecified water transport accident	4
E840	Accident to powered aircraft at takeoff or landing	1
E841	Accident to powered aircraft, other and unspecified	20

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.16 Number of Deaths by Cause Michigan Residents, 1992 (continued)

ICD List Number	Cause Of Death	Number
E844	Other specified air transport accidents	1
E848	Accidents involving other vehicles not elsewhere classifiable	2
E850	Accidental poisoning by analgesics, antipyretics, antirheumatics	6
E853	Accidental poisoning by tranquilizers	3
E854	Accidental poisoning by other psychotropic agents	3
E855	Accidental poisoning by other drugs acting on central and autonomic nervous systems	11
E858	Accidental poisoning by other drugs	39
E860	Accidental poisoning by alcohol, not elsewhere classified	5
E861	Accidental poisoning by cleaning and polishing agents, disinfectants, paints and varnishes	1
E862	Accidental poisoning by petroleum products, other solvents and their vapours, not elsewhere classified	3
E865	Accidental poisoning from foodstuffs and poisonous plants	1
E866	Accidental poisoning by other and unspecified solid and liquid substances	4
E868	Accidental poisoning by other utility gas and other carbon monoxide	29
E869	Accidental poisoning by other gases and vapors	1
E870	Accidental cut, puncture, perforation or hemorrhage during medical care	5
E876	Other and unspecified misadventures during medical care	3
E878	Surgical operation and other surgical procedures as the cause of abnormal reaction of patient, or of later complication, without mention of misadventure at the time of procedure	43
E879	Other procedures, without mention of misadventure at the time of procedure, as the cause of abnormal reaction of patient, or of misadventure at the time of procedure	19
E880	Fall on or from stairs or steps	50
E881	Fall on or from ladders or scaffolding	15
E882	Fall from or out of building or other structure	9
E883	Fall into hole or other opening in surface	1
E884	Other fall from one level to another	25
E885	Fall on same level from slipping, tripping or stumbling	16
E887	Fracture, cause unspecified	143
E888	Other and unspecified fall	206
E890	Conflagration in private dwelling	179
E891	Conflagration in other and unspecified building or structure	2
E892	Conflagration not in building or structure	1
E893	Accident caused by ignition of clothing	5
E894	Ignition of highly inflammable material	3
E895	Accident caused by controlled fire in private dwelling	1
E898	Accident caused by other specified fire and flames	1
E899	Accident caused by unspecified fire	7
E900	Excessive heat	1
E901	Excessive cold	30
E904	Hunger, thirst, exposure, neglect	5
E905	Venomous animals and plants as the cause of poisoning and toxic reactions	3
E906	Other injury caused by animals	4
E907	Lightening	1
E910	Accidental drowning and submersion	105
E911	Inhalation and ingestion of food causing obstruction of respiratory tract or suffocation	33
E912	Inhalation and ingestion of other object causing obstruction of respiratory tract or suffocation	56
E913	Accidental mechanical suffocation	34
E915	Foreign body accidentally entering other orifice	1
E916	Struck accidentally by falling object	21
E917	Striking against or struck accidentally by objects or persons	5
E918	Caught accidentally in or between objects	7
E919	Accidents caused by machinery	23

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.16 Number of Deaths by Cause Michigan Residents, 1992 (continued)

ICD List Number	Cause of Death	Number
E920	Accidents caused by cutting and piercing instruments or objects	4
E922	Accident caused by firearm missile	34
E923	Accident caused by explosive material	4
E924	Accident caused by hot substance or object, caustic or corrosive material and steam	3
E925	Accident caused by electric current	26
E928	Other and unspecified environmental and accidental causes	75
E929	Late effects of accidental injury	21
E930	Antibiotics	3
E934	Agents primarily affecting blood constituents	2
E947	Other and unspecified drugs and medicaments	6
E950	Suicide and selfinflicted poisoning by solid or liquid substance	138
E951	Suicide and selfinflicted poisoning by gases in domestic use	2
E952	Suicide and selfinflicted poisoning by other gases and vapors	110
E953	Suicide and selfinflicted injury by hanging, strangulation and suffocation	167
E954	Suicide and selfinflicted injury by submersion (drowning)	10
E955	Suicide and selfinflicted injury by firearms and explosives	597
E956	Suicide and selfinflicted injury by cutting and piercing instrument	11
E957	Suicide and selfinflicted injuries by jumping from high place	12
E958	Suicide and selfinflicted injury by other and unspecified means	15
E959	Late effects of selfinflicted injury	1
E960	Fight, brawl, rape	1
E962	Assault by poisoning	6
E963	Assault by hanging and strangulation	30
E964	Assault by submersion (drowning)	1
E965	Assault by firearms and explosives	728
E966	Assault by cutting and piercing instrument	142
E967	Child battering and other maltreatment	19
E968	Assault by other and unspecified means	113
E969	Late effects of injury purposely inflicted by other persons	2
E970	Injury do to legal intervention by firearms	5
E980	Poisoning by solid or liquid substances, undetermined whether accidentally or purposely inflicted	75
E981	Poisoning by gases in domestic use, undetermined whether accidentally or purposely inflicted	1
E982	Poisoning by other gases, undetermined whether accidentally or purposely inflicted	2
E983	Hanging, strangulation or suffocation, undetermined whether accidentally or purposely inflicted	2
E984	Submersion (drowning), undetermined whether accidentally or purposely inflicted	8
E985	Injury by firearms and explosives, undetermined whether accidentally or purposely inflicted	11
E986	Injury by cutting and piercing instruments, undetermined whether accidentally or purposely inflicted	1
E987	Falling from high place, undetermined whether accidentally or purposely inflicted	3
E988	Injury by other and unspecified means, undetermined whether accidentally or purposely inflicted	5

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.17
Population Changes by County
Michigan, 1980 and 1990

Area	Population Estimate July 1, 1980	Population Estimate July 1, 1990	Net Change	Percent Change	Natural Increase	Estimated Net Migration
Michigan	9,262,078	9,295,297	33,219	0.4	623,126	-589,907
Alcona	9,740	10,145	405	4.2	-262	667
Alger	9,225	8,972	-253	-2.7	101	-354
Allegan	81,555	90,509	8,954	11.0	7,426	1,528
Alpena	32,315	30,605	-1,710	-5.3	1,322	-3,032
Antrim	16,194	18,185	1,991	12.3	472	1,519
Arenac	14,706	14,931	225	1.5	510	-285
Baraga	8,484	7,954	-530	-6.2	71	-601
Barry	45,781	50,057	4,276	9.3	3,188	1,088
Bay	119,881	111,723	-8,158	-6.8	7,139	-15,297
Benzie	11,205	12,200	995	8.9	368	627
Berrien	171,276	161,378	-9,898	-5.8	10,362	-20,260
Branch	40,188	41,502	1,314	3.3	2,540	-1,226
Calhoun	141,557	135,982	-5,575	-3.9	7,550	-13,125
Cass	49,499	49,477	-22	-0.0	2,269	-2,291
Charlevoix	19,907	21,468	1,561	7.8	1,272	289
Cheboygan	20,649	21,398	749	3.6	817	-68
Chippewa	29,029	34,604	5,575	19.2	1,061	4,514
Clare	23,822	24,952	1,130	4.7	717	413
Clinton	55,893	57,883	1,990	3.6	4,969	-2,979
Crawford	9,465	12,260	2,795	29.5	681	2,114
Delta	38,947	37,780	-1,167	-3.0	1,711	-2,878
Dickinson	25,341	26,831	1,490	5.9	592	898
Eaton	88,337	92,879	4,542	5.1	6,420	-1,878
Emmet	22,992	25,040	2,048	8.9	1,297	751
Genesee	450,449	430,459	-19,990	-4.4	35,448	-55,438
Gladwin	19,957	21,896	1,939	9.7	746	1,193
Gogebic	19,686	18,052	-1,634	-8.3	-664	-970
Grand Traverse	54,899	64,273	9,374	17.1	4,701	4,673
Gratiot	40,448	38,982	-1,466	-3.6	1,751	-3,217
Hillsdale	42,071	43,431	1,360	3.2	2,542	-1,182
Houghton	37,872	35,446	-2,426	-6.4	546	-2,972
Huron	36,459	34,951	-1,508	-4.1	1,416	-2,924
Ingham	275,520	281,912	6,392	2.3	27,424	-21,032
Ionia	51,815	57,024	5,209	10.1	4,682	527
Iosco	28,349	30,209	1,860	6.6	2,783	-923
Iron	13,635	13,175	-460	-3.4	-520	60
Isabella	54,110	54,624	514	0.9	3,866	-3,352
Jackson	151,495	149,756	-1,739	-1.1	8,650	-10,389
Kalamazoo	212,378	223,411	11,033	5.2	17,186	-6,153
Kalkaska	10,952	13,497	2,545	23.2	1,046	1,499

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.17 (continued)
Population Changes by County
 Michigan, 1980 and 1990

Area	Population Estimate July 1, 1980	Population Estimate July 1, 1990	Net Change	Percent Change	Natural Increase	Estimated Net Migration
Kent	444,506	500,631	56,125	12.6	52,147	3,978
Keweenaw	1,963	1,701	-262	-13.3	-168	-94
Lake	7,711	8,583	872	11.3	-119	991
Lapeer	70,038	74,768	4,730	6.8	5,764	-1,034
Leelanau	14,007	16,527	2,520	18.0	813	1,707
Lenawee	89,948	91,476	1,528	1.7	5,769	-4,241
Livingston	100,289	115,645	15,356	15.3	8,348	7,008
Luce	6,659	5,763	-896	-13.5	106	-1,002
Mackinac	10,178	10,674	496	4.9	212	284
Macomb	694,600	717,400	22,800	3.3	42,528	-19,728
Manistee	23,019	21,265	-1,754	-7.6	64	-1,818
Marquette	74,101	70,887	-3,214	-4.3	6,410	-9,624
Mason	26,365	25,537	-828	-3.1	821	-1,649
Mecosta	36,961	37,308	347	0.9	1,945	-1,598
Menominee	26,201	24,920	-1,281	-4.9	643	-1,924
Midland	73,578	75,651	2,073	2.8	6,559	-4,486
Missaukee	10,009	12,147	2,138	21.4	830	1,308
Monroe	134,659	133,600	-1,059	-0.8	9,310	-10,369
Montcalm	47,555	53,059	5,504	11.6	3,532	1,972
Montmorency	7,492	8,936	1,444	19.3	-178	1,622
Muskegon	157,589	158,983	1,394	0.9	11,806	-10,412
Newaygo	34,917	38,202	3,285	9.4	2,660	625
Oakland	1,011,793	1,083,592	71,799	7.1	70,700	1,099
Oceana	22,002	22,454	452	2.1	1,630	-1,178
Ogemaw	16,436	18,681	2,245	13.7	497	1,748
Ontonagon	9,861	8,854	-1,007	-10.2	-53	-954
Osceola	18,928	20,146	1,218	6.4	1,182	36
Oscoda	6,858	7,842	984	14.3	132	852
Otsego	14,993	17,957	2,964	19.8	1,094	1,870
Ottawa	157,174	187,768	30,594	19.5	18,445	12,149
Presque Isle	14,267	13,743	-524	-3.7	237	-761
Roscommon	16,374	19,776	3,402	20.8	-282	3,684
Saginaw	228,059	211,946	-16,113	-7.1	16,935	-33,048
St. Clair	138,802	145,607	6,805	4.9	8,131	-1,326
St. Joseph	56,083	58,913	2,830	5.0	4,053	-1,223
Sanilac	40,789	39,928	-861	-2.1	1,728	-2,589
Schoolcraft	8,575	8,302	-273	-3.2	75	-348
Shiawassee	71,140	69,770	-1,370	-1.9	5,135	-6,505
Tuscola	56,961	55,498	-1,463	-2.6	3,556	-5,019
Van Buren	66,814	70,060	3,246	4.9	4,456	-1,210
Washtenaw	264,748	282,937	18,189	6.9	24,432	-6,243
Wayne	2,337,891	2,111,687	-226,204	-9.7	125,631	-351,835
Wexford	25,102	26,360	1,258	5.0	1,513	-255

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.18
Population by Age, Race and Sex
Michigan Residents, 1990

Age in Years	All Races			White			Black			All Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
< 1	151,264	77,293	73,971	117,554	60,148	57,406	30,509	15,485	15,024	3,201	1,660	1,541
1 - 4	562,314	287,431	274,883	451,685	231,530	220,155	97,872	49,425	48,447	12,757	6,476	6,281
5 - 9	690,138	353,390	336,748	563,744	289,687	274,057	110,882	55,907	54,975	15,512	7,796	7,716
10 - 14	665,572	340,578	324,994	538,400	276,544	261,856	112,536	56,705	55,831	14,636	7,329	7,307
15 - 19	700,201	355,970	344,231	559,748	285,917	273,831	124,685	61,948	62,737	15,768	8,105	7,663
20 - 24	706,575	350,511	356,064	582,768	291,766	291,002	108,740	51,000	57,740	15,067	7,745	7,322
25 - 29	764,264	376,664	387,600	643,267	321,201	322,066	105,333	47,685	57,648	15,664	7,778	7,886
30 - 34	810,420	396,830	413,590	684,362	339,708	344,654	110,752	49,548	61,204	15,306	7,574	7,732
35 - 39	744,802	365,839	378,963	629,710	314,084	315,626	101,410	45,263	56,147	13,682	6,492	7,190
40 - 44	657,391	323,122	334,269	559,969	278,811	281,158	85,094	38,684	46,410	12,328	5,627	6,701
45 - 49	520,093	255,767	264,326	449,915	223,189	226,726	61,234	28,210	33,024	8,944	4,368	4,576
50 - 54	424,090	206,548	217,542	370,209	182,001	188,208	47,415	21,225	26,190	6,466	3,322	3,144
55 - 59	391,190	187,237	203,953	341,312	164,924	176,388	45,439	20,173	25,266	4,439	2,140	2,299
60 - 64	402,882	190,640	212,242	354,333	169,056	185,277	44,987	20,025	24,962	3,562	1,559	2,003
65 - 69	367,805	165,700	202,105	324,623	146,694	177,929	40,537	17,845	22,692	2,645	1,161	1,484
70 - 74	286,418	121,055	165,363	255,812	108,354	147,458	28,886	12,012	16,874	1,720	689	1,031
75 - 79	211,919	82,719	129,200	189,989	74,292	115,697	20,784	7,968	12,816	1,146	459	687
80 - 84	132,789	45,870	86,919	120,528	41,357	79,171	11,628	4,223	7,405	633	290	343
85 +	105,170	29,566	75,604	95,138	26,289	68,849	9,643	3,125	6,518	389	152	237
Total	9,295,297	4,512,730	4,782,567	7,833,066	3,825,552	4,007,514	1,298,366	606,456	691,910	163,865	80,722	83,143

Source: The United States Bureau of the Census, 1990 Census of Population.

Table 4.19
Abridged Life Table
Michigan Residents, 1992

Age	$nx(1)^1$	$lx(2)^1$	$ndx(3)^1$	$nLx(4)^1$	$Tx(5)^1$	$ex(6)^1$
0-1	0.00965	100,000	965	99,137	7,513,002	75.1
1-5	0.00182	99,035	180	395,718	7,413,864	74.9
5-10	0.00121	98,855	120	493,944	7,018,146	71.0
10-15	0.00142	98,735	140	493,379	6,524,202	66.1
15-20	0.00383	98,595	377	492,112	6,030,823	61.2
20-25	0.00538	98,218	528	489,797	5,538,711	56.4
25-30	0.00527	97,690	514	487,185	5,048,914	51.7
30-35	0.00650	97,176	631	484,380	4,561,729	46.9
35-40	0.00935	96,544	902	480,596	4,077,348	42.2
40-45	0.01310	95,642	1,252	475,269	3,596,753	37.6
45-50	0.01914	94,390	1,806	467,750	3,121,484	33.1
50-55	0.02989	92,584	2,767	456,421	2,653,734	28.7
55-60	0.04252	89,817	3,819	440,149	2,197,312	24.5
60-65	0.06636	85,998	5,706	416,697	1,757,164	20.4
65-70	0.10582	80,291	8,496	381,452	1,340,466	16.7
70-75	0.16216	71,795	11,642	330,985	959,014	13.4
75-80	0.23022	60,153	13,848	266,975	628,029	10.4
80-85	0.33761	46,304	15,633	192,360	361,054	7.8
85+	1.00000	30,672	30,672	168,694	168,694	5.5

¹ Definitions of life table values are contained in the Technical Notes.
Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.20
Abridged Life Table for Males
 Michigan Residents, 1992

Age	$q_x(1)^1$	$l_x(2)^1$	$ndx(3)^1$	$nLx(4)^1$	$T_x(5)^1$	$ex(6)^1$
0-1	0.01087	100,000	1,087	99,036	7,190,699	71.9
1-5	0.00227	98,913	224	395,123	7,091,663	71.7
5-10	0.00145	98,689	142	493,054	6,696,540	67.9
10-15	0.00191	98,547	188	492,346	6,203,486	63.0
15-20	0.00544	98,359	535	490,587	5,711,140	58.1
20-25	0.00827	97,824	809	487,142	5,220,553	53.4
25-30	0.00768	97,015	744	483,227	4,733,411	48.8
30-35	0.00894	96,271	860	479,311	4,250,184	44.2
35-40	0.01313	95,411	1,252	474,084	3,770,873	39.5
40-45	0.01720	94,159	1,619	466,965	3,296,789	35.0
45-50	0.02472	92,541	2,287	457,329	2,829,823	30.6
50-55	0.03620	90,254	3,267	443,588	2,372,494	26.3
55-60	0.05310	86,987	4,619	424,132	1,928,907	22.2
60-65	0.08303	82,368	6,839	395,903	1,504,775	18.3
65-70	0.13484	75,529	10,184	353,625	1,108,871	14.7
70-75	0.21039	65,345	13,747	293,399	755,246	11.6
75-80	0.29436	51,598	15,188	220,364	461,847	9.0
80-85	0.42318	36,410	15,408	142,773	241,483	6.6
85+	1.00000	21,002	21,002	98,710	98,710	4.7

¹ Definitions of life table values are contained in the Technical Notes.
 Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.21
Abridged Life Table for Females
 Michigan Residents, 1992

Age	$q_x(1)^1$	$l_x(2)^1$	$ndx(3)^1$	$nLx(4)^1$	$T_x(5)^1$	$ex(6)^1$
0-1	0.00836	100,000	836	99,246	7,823,529	78.2
1-5	0.00136	99,164	134	396,351	7,724,283	77.9
5-10	0.00097	99,030	96	494,889	7,327,932	74.0
10-15	0.00091	98,935	90	494,474	6,833,042	69.1
15-20	0.00217	98,845	214	493,724	6,338,568	64.1
20-25	0.00252	98,631	248	492,553	5,844,844	59.3
25-30	0.00293	98,384	288	491,232	5,352,291	54.4
30-35	0.00416	98,096	407	489,518	4,861,059	49.6
35-40	0.00569	97,689	555	487,155	4,371,541	44.8
40-45	0.00912	97,133	885	483,612	3,884,386	40.0
45-50	0.01371	96,248	1,319	478,230	3,400,773	35.3
50-55	0.02387	94,929	2,266	469,337	2,922,544	30.9
55-60	0.03272	92,663	3,031	456,222	2,453,207	26.5
60-65	0.05116	89,632	4,585	437,509	1,996,984	22.3
65-70	0.08139	85,047	6,922	409,014	1,559,475	18.3
70-75	0.12520	78,125	9,781	367,388	1,150,461	14.7
75-80	0.18647	68,345	12,744	311,164	783,073	11.5
80-85	0.28815	55,601	16,021	238,386	471,908	8.5
85+	1.00000	39,580	39,580	233,522	233,522	5.9

¹ Definitions of life table values are contained in the Technical Notes.
 Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.22
Abridged Life Table for Whites
 Michigan Residents, 1992

Age	$nx(1)^1$	$lx(2)^1$	$ndx(3)^1$	$nLx(4)^1$	$Tx(5)^1$	$ex(6)^1$
0-1	0.00664	100,000	664	99,410	7,632,414	76.3
1-5	0.00140	99,336	139	397,028	7,533,003	75.8
5-10	0.00103	99,197	102	495,703	7,135,976	71.9
10-15	0.00130	99,095	129	495,195	6,640,273	67.0
15-20	0.00316	98,966	312	494,104	6,145,077	62.1
20-25	0.00400	98,653	394	492,298	5,650,974	57.3
25-30	0.00390	98,260	383	490,371	5,158,676	52.5
30-35	0.00547	97,877	535	488,116	4,668,305	47.7
35-40	0.00729	97,342	709	485,034	4,180,189	42.9
40-45	0.01028	96,633	993	480,853	3,695,155	38.2
45-50	0.01584	95,641	1,514	474,734	3,214,301	33.6
50-55	0.02668	94,126	2,511	464,768	2,739,567	29.1
55-60	0.03815	91,616	3,495	449,942	2,274,799	24.8
60-65	0.06127	88,121	5,399	428,114	1,824,857	20.7
65-70	0.10067	82,722	8,327	394,099	1,396,744	16.9
70-75	0.15689	74,395	11,671	344,032	1,002,645	13.5
75-80	0.22740	62,723	14,263	278,889	658,613	10.5
80-85	0.33289	48,460	16,132	201,916	379,724	7.8
85+	1.00000	32,329	32,329	177,808	177,808	5.5

¹ Definitions of life table values are contained in the Technical Notes.
 Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.23
Abridged Life Table for White Males
 Michigan Residents, 1992

Age	$nx(1)^1$	$lx(2)^1$	$ndx(3)^1$	$nLx(4)^1$	$Tx(5)^1$	$ex(6)^1$
0-1	0.00748	100,000	748	99,342	7,328,581	73.3
1-5	0.00185	99,252	183	396,577	7,229,239	72.8
5-10	0.00121	99,069	120	495,014	6,832,662	69.0
10-15	0.00179	98,949	177	494,366	6,337,649	64.1
15-20	0.00430	98,772	424	492,888	5,843,283	59.2
20-25	0.00612	98,348	602	490,260	5,350,395	54.4
25-30	0.00555	97,746	542	487,402	4,860,135	49.7
30-35	0.00744	97,205	723	484,308	4,372,733	45.0
35-40	0.01021	96,482	984	480,069	3,888,425	40.3
40-45	0.01365	95,497	1,303	474,420	3,408,356	35.7
45-50	0.02022	94,194	1,904	466,550	2,933,937	31.2
50-55	0.03191	92,289	2,945	454,579	2,467,386	26.7
55-60	0.04785	89,345	4,275	436,801	2,012,807	22.5
60-65	0.07776	85,070	6,614	410,032	1,576,006	18.5
65-70	0.12907	78,456	10,126	368,492	1,165,974	14.9
70-75	0.20427	68,329	13,957	307,938	797,482	11.7
75-80	0.29072	54,372	15,807	232,810	489,544	9.0
80-85	0.41993	38,565	16,194	151,591	256,735	6.7
85+	1.00000	22,371	22,371	105,143	105,143	4.7

¹ Definitions of life table values are contained in the Technical Notes.
 Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.24
Abridged Life Table for White Females
 Michigan Residents, 1992

Age	$nqx(1)^1$	$lx(2)^1$	$ndx(3)^1$	$nLx(4)^1$	$Tx(5)^1$	$ex(6)^1$
0-1	0.00577	100,000	577	99,483	7,922,464	79.2
1-5	0.00093	99,423	92	397,501	7,822,981	78.7
5-10	0.00084	99,331	83	496,427	7,425,481	74.8
10-15	0.00079	99,248	78	496,069	6,929,054	69.8
15-20	0.00198	99,170	195	495,385	6,432,985	64.9
20-25	0.00186	98,975	184	494,421	5,937,600	60.0
25-30	0.00225	98,791	222	493,436	5,443,179	55.1
30-35	0.00352	98,569	347	492,022	4,949,743	50.2
35-40	0.00437	98,222	429	490,109	4,457,721	45.4
40-45	0.00692	97,794	676	487,421	3,967,613	40.6
45-50	0.01150	97,118	1,117	483,087	3,480,191	35.8
50-55	0.02160	96,001	2,073	475,158	2,997,104	31.2
55-60	0.02900	93,928	2,724	463,273	2,521,947	26.9
60-65	0.04600	91,204	4,195	446,357	2,058,674	22.6
65-70	0.07664	87,010	6,668	419,521	1,612,317	18.5
70-75	0.12047	80,342	9,678	378,833	1,192,796	14.9
75-80	0.18413	70,663	13,011	322,173	813,963	11.5
80-85	0.28307	57,653	16,319	247,923	491,790	8.5
85+	1.00000	41,333	41,333	243,867	243,867	5.9

¹ Definitions of life table values are contained in the Technical Notes.
 Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.25
Abridged Life Table for Blacks
 Michigan Residents, 1992

Age	$nqx(1)^1$	$lx(2)^1$	$ndx(3)^1$	$nLx(4)^1$	$Tx(5)^1$	$ex(6)^1$
0-1	0.02150	100,000	2,150	98,056	6,841,716	68.4
1-5	0.00372	97,850	363	390,520	6,743,660	68.9
5-10	0.00217	97,487	211	486,853	6,353,140	65.2
10-15	0.00209	97,276	203	485,970	5,866,287	60.3
15-20	0.00708	97,073	687	483,859	5,380,317	55.4
20-25	0.01271	96,386	1,225	478,993	4,896,458	50.8
25-30	0.01354	95,161	1,288	472,588	4,417,465	46.4
30-35	0.01315	93,873	1,234	466,447	3,944,877	42.0
35-40	0.02250	92,639	2,084	458,328	3,478,430	37.6
40-45	0.03172	90,556	2,872	445,942	3,020,101	33.4
45-50	0.04264	87,683	3,738	429,429	2,574,159	29.4
50-55	0.05464	83,945	4,586	408,704	2,144,730	25.6
55-60	0.07389	79,359	5,863	382,763	1,736,026	21.9
60-65	0.10322	73,496	7,586	349,279	1,353,263	18.4
65-70	0.14470	65,910	9,537	306,545	1,003,984	15.2
70-75	0.20591	56,373	11,608	253,227	697,439	12.4
75-80	0.25385	44,765	11,363	195,655	444,212	9.9
80-85	0.38146	33,402	12,742	134,924	248,557	7.4
85+	1.00000	20,661	20,661	113,633	113,633	5.5

¹ Definitions of life table values are contained in the Technical Notes.
 Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.26
Abridged Life Table for Black Males
 Michigan Residents, 1992

Age	$q_x(1)^1$	$l_x(2)^1$	$ndx(3)^1$	$nLx(4)^1$	$T_x(5)^1$	$ex(6)^1$
0-1	0.02435	100,000	2,435	97,817	6,395,443	64.0
1-5	0.00420	97,565	410	389,284	6,297,627	64.6
5-10	0.00259	97,156	252	485,087	5,908,342	60.8
10-15	0.00256	96,904	248	484,073	5,423,255	56.0
15-20	0.01109	96,657	1,071	480,963	4,939,182	51.1
20-25	0.02058	95,585	1,967	473,210	4,458,219	46.6
25-30	0.02178	93,618	2,039	462,958	3,985,009	42.6
30-35	0.01960	91,579	1,794	453,614	3,522,052	38.5
35-40	0.03360	89,785	3,016	441,787	3,068,438	34.2
40-45	0.04292	86,769	3,724	424,926	2,626,651	30.3
45-50	0.05890	83,045	4,891	403,401	2,201,725	26.5
50-55	0.07228	78,155	5,649	377,031	1,798,324	23.0
55-60	0.09257	72,506	6,712	346,275	1,421,294	19.6
60-65	0.12419	65,794	8,170	309,286	1,075,019	16.4
65-70	0.17825	57,624	10,271	263,341	765,732	13.3
70-75	0.26372	47,353	12,487	205,760	502,391	10.6
75-80	0.32412	34,865	11,300	145,699	296,631	8.5
80-85	0.45310	23,565	10,677	90,359	150,932	6.4
85+	1.00000	12,888	12,888	60,573	60,573	4.7

¹ Definitions of life table values are contained in the Technical Notes.
 Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.27
Abridged Life Table for Black Females
 Michigan Residents, 1992

Age	$q_x(1)^1$	$l_x(2)^1$	$ndx(3)^1$	$nLx(4)^1$	$T_x(5)^1$	$ex(6)^1$
0-1	0.01844	100,000	1,844	98,316	7,272,302	72.7
1-5	0.00322	98,156	315	391,846	7,173,987	73.1
5-10	0.00173	97,840	169	488,738	6,782,141	69.3
10-15	0.00162	97,671	157	487,992	6,293,403	64.4
15-20	0.00311	97,514	303	486,897	5,805,411	59.5
20-25	0.00571	97,211	554	484,743	5,318,515	54.7
25-30	0.00666	96,657	644	481,720	4,833,772	50.0
30-35	0.00790	96,014	758	478,306	4,352,052	45.3
35-40	0.01346	95,255	1,282	473,351	3,873,747	40.7
40-45	0.02229	93,974	2,094	464,913	3,400,395	36.2
45-50	0.02854	91,880	2,621	453,154	2,935,482	32.0
50-55	0.04009	89,258	3,578	437,847	2,482,328	27.8
55-60	0.05870	85,680	5,029	416,528	2,044,480	23.9
60-65	0.08606	80,651	6,941	386,659	1,627,952	20.2
65-70	0.11746	73,710	8,658	347,660	1,241,294	16.8
70-75	0.16233	65,052	10,559	299,406	893,634	13.7
75-80	0.20678	54,493	11,268	245,129	594,227	10.9
80-85	0.33690	43,225	14,562	179,988	349,099	8.1
85+	1.00000	28,663	28,663	169,111	169,111	5.9

¹ Definitions of life table values are contained in the Technical Notes.
 Source: Office of the State Registrar and Division for Health Statistics, MDPH

Table 4.28
Age-Adjusted Death Rates¹ by Race and Sex
 Michigan² and United States Residents, 1970 - 1992

Place	Year	All Races			White			Black		
		Total	Male	Female	Total	Male	Female	Total	Male	Female
Mich.	1970	717.5	925.9	537.3	685.5	889.4	510.8	1,017.1	1,274.1	787.8
	1971	707.9	922.9	524.0	672.5	881.2	495.7	1,034.2	1,315.0	785.3
	1972	711.1	928.2	526.4	677.2	888.0	499.4	1,017.8	1,302.6	767.1
	1973	694.3	906.3	513.7	658.4	862.6	486.0	1,014.1	1,309.1	757.9
	1974	660.7	865.1	488.0	628.4	824.6	464.2	948.4	1,235.6	698.6
	1975	640.2	840.3	472.4	610.1	800.5	452.0	904.1	1,198.8	649.8
	1976	636.1	838.5	469.1	607.2	801.4	448.5	889.6	1,170.5	650.8
	1977	614.4	814.8	449.4	587.3	781.6	428.8	851.7	1,116.5	628.0
	1978	606.3	797.8	449.8	578.7	765.7	426.8	842.7	1,085.5	640.3
	1979	585.4	775.6	431.4	557.9	742.5	409.7	812.6	1,063.9	604.2
	1980	588.0	773.9	438.7	557.1	735.5	414.9	829.5	1,091.4	615.2
	1981	567.4	752.1	424.5	542.2	718.5	403.0	823.9	1,075.3	619.6
	1982	556.9	739.5	416.8	531.9	705.4	395.6	807.8	1,055.2	607.2
	1983	557.1	735.0	421.2	531.1	698.7	399.3	816.6	1,065.3	615.7
	1984	564.5	736.5	431.3	533.7	694.8	407.2	813.3	1,072.4	605.0
	1985	570.0	747.3	427.6	534.9	701.2	402.8	840.4	1,121.8	612.3
	1986	566.9	734.8	431.0	529.2	685.4	404.0	857.1	1,136.4	632.4
	1987	556.4	713.6	428.4	516.1	658.8	400.9	866.4	1,159.1	632.0
	1988	545.0	698.0	419.1	504.9	647.2	388.6	858.2	1,120.2	647.9
	1989	531.5	675.4	412.0	494.3	634.9	377.3	883.6	1,163.5	659.9
1990	527.9	681.2	405.4	488.0	628.2	377.1	797.9	1,069.2	585.2	
1991	533.6	686.6	412.0	492.4	631.9	383.3	814.8	1,081.1	603.2	
1992	525.3	677.3	404.4	483.1	623.7	372.4	806.8	1,060.0	608.6	
U.S.	1970	714.3	931.6	532.5	679.6	893.4	501.7	1,044.0	1,318.6	814.4
	1971	697.6	913.3	519.1	663.7	876.0	489.1	1,007.8	1,276.1	784.6
	1972	698.0	918.0	516.6	664.0	879.3	487.6	1,009.5	1,296.6	772.8
	1973	687.3	905.9	508.1	654.0	868.5	479.3	993.1	1,272.1	640.9
	1974	659.5	870.9	487.0	629.0	836.1	461.0	940.4	1,215.5	717.1
	1975	630.4	837.2	462.5	602.2	804.3	439.0	890.8	1,163.0	670.6
	1976	618.5	820.9	455.0	591.3	789.3	432.5	870.5	1,138.3	654.5
	1977	602.1	801.3	441.8	575.7	770.6	419.6	849.3	1,112.1	639.6
	1978	595.0	791.4	437.4	569.5	761.1	416.4	831.8	1,093.9	622.7
	1979	577.0	768.6	423.1	551.9	738.4	402.5	840.1	1,090.4	636.1
	1980	585.8	777.2	432.6	559.4	745.3	411.1	842.5	1,112.8	631.1
	1981	568.6	753.8	420.8	544.8	724.8	401.5	807.0	1,068.8	602.7
	1982	554.7	734.2	411.9	532.3	706.8	393.6	782.1	1,035.4	585.9
	1983	552.5	729.4	412.5	529.4	701.6	393.3	787.4	1,037.5	595.3
	1984	548.1	721.6	410.5	525.2	693.6	391.7	783.3	1,035.9	590.1
	1985	548.9	723.0	410.3	524.9	693.3	391.0	793.6	1,053.4	594.8
	1986	544.8	716.2	407.6	520.1	684.9	388.1	796.8	1,061.9	594.1
	1987	539.2	706.8	404.6	513.7	674.2	384.8	796.4	1,063.6	592.4
	1988	539.9	706.1	406.1	512.8	671.3	385.3	809.7	1,083.0	601.0
	1989	528.0	689.3	397.3	499.6	652.2	376.0	805.9	1,082.8	594.3
1990	520.2	680.2	390.6	492.8	644.3	369.9	789.2	1,061.3	581.6	
1991	513.7	669.9	386.5	486.8	634.4	366.3	780.7	1,048.8	575.1	
1992 ³	—	—	—	—	—	—	—	—	—	

¹ Based on age-specific death rates per 100,000 population in specified group. Computed by the direct method, using as the standard population the age distribution of the total population of the United States as enumerated in 1940; see Technical Notes.

² Michigan rates for 1981-1985 have been revised based upon revisions to population estimates; see Technical Notes.

³ Provisional data.

Source: Office of the State Registrar and Division for Health Statistics, MDPH

Figure 4.2

ROTARY MULTIFORMS INC - GRAND RAPIDS MI - 616 942 2574

**PLEASE TYPEWRITE OR PRINT - EXCEPT SIGNATURES
ALL COPIES MUST BE LEGIBLE - USE ONLY BLACK INK**

STATE OF MICHIGAN
DEPARTMENT OF PUBLIC HEALTH 49

STATE FIRM NUMBER
0416925

LF _____ CF _____

CERTIFICATE OF LIVE BIRTH

CHILD	1 CHILD - NAME (FIRST) (MIDDLE) (LAST)		
	2 SEX	3a PLURALITY - SINGLE, TWIN, TRIPLET, ETC (SPECIFY)	3b IF NOT SINGLE - BORN 1ST, 2ND, 3RD, ETC (SPECIFY)
	4a DATE OF BIRTH (Month, Day, Year)	4b TIME (of BIRTH)	
PLACE	5a HOSPITAL NAME - (IF NOT HOSPITAL GIVE STREET AND NUMBER)	5b CITY, VILLAGE, OR TOWNSHIP OF BIRTH	5c COUNTY OF BIRTH
CERTIFICATION	6a I CERTIFY THAT THE ABOVE NAMED CHILD WAS BORN ALIVE AT THE PLACE AND TIME AND ON THE DATE STATED ABOVE		
	SIGNATURE _____ DATE _____		
	6c NAME AND TITLE OF ATTENDANT IF OTHER THAN CERTIFIER _____ ADDRESS _____ (Street No., City or Village, State ZIP)		
	7a REGISTRAR'S SIGNATURE _____ DATE RECEIVED BY LOCAL REGISTRAR (Month, Day, Year)		
MOTHER	8a MOTHER'S NAME (FIRST, MIDDLE, LAST)	8b SOCIAL SECURITY NUMBER	8c STATE OF BIRTH, NAME COUNTRY IF NOT USA
	8d DATE OF BIRTH (Month, Day, Year)	8e COUNTY	8f STATE
	8g MOTHER - SURNAME BEFORE FIRST MARRIED	8h RESIDENCE (Check one box and specify) <input type="checkbox"/> INSIDE CITY OR VILLAGE OF _____ <input type="checkbox"/> TWP OF _____	
FATHER	9a FATHER'S NAME (FIRST, MIDDLE, LAST)	9b SOCIAL SECURITY NUMBER	9c STATE OF BIRTH, NAME COUNTRY IF NOT USA
	9d DATE OF BIRTH (Month, Day, Year)		
	10a I CERTIFY THAT THE PERSONAL INFORMATION PROVIDED ON THIS CERTIFICATE IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF		10b THE PARENT(S) REQUEST THAT INFORMATION ON THIS BIRTH BE RELEASED TO THE SOCIAL SECURITY ADMIN FOR ISSUANCE OF A SOCIAL SECURITY NUMBER AND CARD
	SIGNATURE (PARENT OR OTHER INFORMANT) _____		<input type="checkbox"/> YES <input type="checkbox"/> NO

CONFIDENTIAL INFORMATION FOR PUBLIC HEALTH USE ONLY

MOTHER	11a ANCESTRY - Mexican, Puerto Rican, Cuban, Central or South American, Chinese, other Hispanic, Afro-American, Arab, English, French, Finnish, etc. (Specify below)	12a RACE - American Indian, Black, White, etc. If Asian, give nationality, i.e. Chinese, Filipino, Asian Indian, etc. (Specify below)	13a EDUCATION (Specify only highest grade completed) Elementary, Secondary (0-12) College (14 or 16)
FATHER	11b	12b	13b
MEDICAL AND HEALTH INFORMATION	14 EXPECTED SOURCE OF PAYMENT FOR MEDICAL SERVICES (Private Insurance, Medicaid, etc.)		15 MOTHER'S MAILING ADDRESS (STREET NUMBER, CITY OR VILLAGE, STATE, ZIP)
	16a MEDICAL RECORD NUMBER OF MOTHER	16b MEDICAL RECORD NUMBER OF CHILD	17 DATE LAST NORMAL MENSES BEGAN (Month, Day, Year)
	18 MONTH OF PREGNANCY PRENATAL CARE BEGAN	19 TOTAL PRENATAL VISITS	
	20 LIVE BIRTHS (Do not include this Child)	20a OTHER TERMINATIONS (Spontaneous and induced at any time after conception)	21a MOTHER TRANSFERRED PRIOR TO DELIVERY (If yes enter name of facility transferred)
	20b NOW LIVING 20c NOW DEAD	21b INFANT TRANSFERRED	22 ATTENDANT AT BIRTH
	20d DATE OF LAST LIVE BIRTH (Mo., Year)	20e DATE OF LAST OTHER TERMINATION (Mo., Year)	23 INFANT ADMITTED TO NICU?
	24 BIRTHWEIGHT (Specify unit)	25 ESTIMATED WEIGHT AT BIRTH	26 APGAR SCORE
	27 PLACE OF BIRTH		

28 MEDICAL RISK FACTORS FOR THIS PREGNANCY (Check all that apply)	31 COMPLICATIONS OF LABOR AND/OR DELIVERY (Check all that apply)	34 APPARENT CONGENITAL ANOMALIES OF NEWBORN (Check all that apply)
Anemia (Hct < 30/Hgb < 10) 01 <input type="checkbox"/> Cardiac disease 02 <input type="checkbox"/> Acute or chronic lung disease 03 <input type="checkbox"/> Diabetes 04 <input type="checkbox"/> Genital herpes 05 <input type="checkbox"/> Hemoglobinopathy 06 <input type="checkbox"/> Hypertension - chronic 07 <input type="checkbox"/> Hypertension - temporary/preeclampsia 08 <input type="checkbox"/> Leukemia 09 <input type="checkbox"/> Incompetent cervix 10 <input type="checkbox"/> Placenta previa 11 <input type="checkbox"/> Prolapsed umbilical cord 12 <input type="checkbox"/> Previous, preterm or small for gestational age infant 13 <input type="checkbox"/> Rhesus disease 14 <input type="checkbox"/> Urinary infection 15 <input type="checkbox"/> Uterine bleeding 16 <input type="checkbox"/> None 00 <input type="checkbox"/> Other (Specify) 17 <input type="checkbox"/>	Fetus > 100 F or 38" C 01 <input type="checkbox"/> Meconium, moderate/heavy 02 <input type="checkbox"/> Premature rupture of membrane (> 12 hours) 03 <input type="checkbox"/> Abruptio placenta 04 <input type="checkbox"/> Placenta previa 05 <input type="checkbox"/> Other excessive bleeding 06 <input type="checkbox"/> Shoulder, during labor 07 <input type="checkbox"/> Prolapsed labor (< 3 hours) 08 <input type="checkbox"/> Prolonged labor (> 20 hours) 09 <input type="checkbox"/> Dysfunctional labor 10 <input type="checkbox"/> Breech Malpresentation 11 <input type="checkbox"/> Cephalopelvic disproportion 12 <input type="checkbox"/> Cord prolapse 13 <input type="checkbox"/> Anesthetic complications 14 <input type="checkbox"/> Fetal distress 15 <input type="checkbox"/> None 00 <input type="checkbox"/> Other (Specify) 16 <input type="checkbox"/>	Anencephalus 01 <input type="checkbox"/> Spina Bifida Meningocele 02 <input type="checkbox"/> Hydrocephalus 03 <input type="checkbox"/> Microcephalus 04 <input type="checkbox"/> Other central nervous system anomalies (Specify) 05 <input type="checkbox"/> Heart malformation 06 <input type="checkbox"/> Other circulatory/respiratory anomalies (Specify) 07 <input type="checkbox"/> Renal atresia stenosis 08 <input type="checkbox"/> Transverse abdominal fistula Esophageal atresia 09 <input type="checkbox"/> Omphalocele/Gastroschisis 10 <input type="checkbox"/> Other gastrointestinal anomalies (Specify) 11 <input type="checkbox"/> Malformed genitalia 12 <input type="checkbox"/> Renal agenesis 13 <input type="checkbox"/> Other urogenital anomalies (Specify) 14 <input type="checkbox"/> Cleft lip/palate 15 <input type="checkbox"/> Polydactyly/Syndactyly/Adactyly 16 <input type="checkbox"/> Club foot 17 <input type="checkbox"/> Diaphragmatic hernia 18 <input type="checkbox"/> Other musculoskeletal/integumental anomalies (Specify) 19 <input type="checkbox"/> Down's syndrome 20 <input type="checkbox"/> Other chromosomal anomalies (Specify) 21 <input type="checkbox"/> None 00 <input type="checkbox"/> Other (Specify) 22 <input type="checkbox"/>
29 OTHER RISK FACTORS FOR THIS PREGNANCY	32 METHOD OF DELIVERY (Check all that apply)	33 ABNORMAL CONDITIONS OF THE NEWBORN (Check all that apply)
Tobacco use during pregnancy Yes <input type="checkbox"/> No <input type="checkbox"/> Average number cigarettes per day _____ Alcohol use during pregnancy Yes <input type="checkbox"/> No <input type="checkbox"/> Average number of drinks per week _____ Weight gained during pregnancy _____ lbs	Vaginal 01 <input type="checkbox"/> Vaginal birth after previous C-section 02 <input type="checkbox"/> Primary C-section 03 <input type="checkbox"/> Repeat C-section 04 <input type="checkbox"/> Forceps 05 <input type="checkbox"/> Vacuum 06 <input type="checkbox"/>	Anemia (Hct < 39 Hgb < 13) 01 <input type="checkbox"/> Birth injury 02 <input type="checkbox"/> Fetal alcohol syndrome 03 <input type="checkbox"/> Hyaline membrane disease RDS 04 <input type="checkbox"/> Meconium aspiration syndrome 05 <input type="checkbox"/> Assisted ventilation < 30 min 06 <input type="checkbox"/> Assisted ventilation > 30 min 07 <input type="checkbox"/> Seizures 08 <input type="checkbox"/> None 00 <input type="checkbox"/> Other (Specify) 09 <input type="checkbox"/>

FAILURE TO PROVIDE THE REQUIRED INFORMATION IS A MISDEMEANOR PUNISHABLE BY IMPRISONMENT OF NOT MORE THAN 1 YEAR OR A FINE OF NOT MORE THAN \$1,000.00 OR BOTH

Figure 4.3

MICHIGAN DEPARTMENT OF PUBLIC HEALTH
REPORT OF FETAL DEATH
 (TYPE OR PRINT IN INK)

FETUS	1a DATE OF DELIVERY (Month, Day, Year)	1b TIME	1c SEX OF FETUS 1 <input type="checkbox"/> MALE 2 <input type="checkbox"/> FEMALE <input type="checkbox"/> INDETERMINABLE	1d WEIGHT OF FETUS	1e ESTIMATED WEEKS GESTATION WEEKS	1f ATTENDANT AT DELIVERY 1 <input type="checkbox"/> M.D. 3 <input type="checkbox"/> NURSE 5 <input type="checkbox"/> NURSE-MIDWIFE 2 <input type="checkbox"/> D.O. 4 <input type="checkbox"/> MIDWIFE <input type="checkbox"/> OTHER (SPECIFY)	
	MOTHER 2a RESIDENCE - STATE, IF OUTSIDE USA ENTER COUNTRY		2b RESIDENCE - COUNTY		2c RESIDENCE - LOCAL (Check one box and specify) <input type="checkbox"/> INSIDE CITY OR VILLAGE OF <input type="checkbox"/> TWP. OF		2d ZIP CODE
MOTHER	3 ANCESTRY Mexican Puerto Rican Cuban Central or South American Chisano other Hispanic, Asia-American Arab, English, French, Finnish, etc. (Specify below)		4 RACE American Indian (Black, White, etc. If Asian, give nationality i.e., Chinese, Filipino, Asian Indian, etc. (Specify below))		5 EDUCATION (Specify only highest grade completed) Elementary/Secondary (0-12) College (1-4 or 5+)		6 OCCUPATION AND BUSINESS/INDUSTRY (Worked during last year) Occupation Business/Industry
	7a	7b	7c	7d	7e	7f	
FATHER	3b	4b	5b	6b	7a	7b	
MEDICAL AND PREGNANCY HISTORY INFORMATION	8 EXPECTED SOURCE OF PAYMENT FOR MEDICAL SERVICES (Private insurance, Medicaid, etc.)		9 MOTHER TRANSFERRED PRIOR TO DELIVERY? (Yes enter name of facility transferred from)				
	10 PREGNANCY HISTORY (Complete each section)						
	10a NOW LIVING (Number)			10b NOW DEAD (Number)			
	10c DATE OF LAST LIVE BIRTH (Mo., Year)			10d DATE OF LAST OTHER TERMINATION (Mo., Year)			
	11 DATE LAST NORMAL MENSES BEGAN (Month, Day, Year)		12 PLURALITY - Single, Twin, Triplet, etc. (Specify)				
13 IF NOT SINGLE BIRTH - Born First, Second, Third, etc. (Specify)		14a MONTH OF PREGNANCY PRENATAL CARE BEGAN - First, Second, Third, etc. (Specify)		14b PRENATAL VISITS - Total Number (if none, so state)			
15a MEDICAL RISK FACTORS FOR THIS PREGNANCY (Check all that apply)		16 OBSTETRIC PROCEDURES (Check all that apply)		17 APPARENT CONGENITAL ANOMALIES OF FETUS (Check all that apply)			
15b OTHER RISK FACTORS FOR THIS PREGNANCY (Complete all items)		17.1 COMPLICATIONS OF LABOR AND/OR DELIVERY (Check all that apply)		17.2 APPARENT CONGENITAL ANOMALIES OF FETUS (Specify)			
20 PART I Fetal or maternal condition directly causing fetal death		20 PART II Other significant conditions of fetus or mother contributing to fetal death but not resulting in the underlying cause given in Part I		21 FETUS DIED BEFORE LABOR, DURING LABOR OR DELIVERY, UNKNOWN (Specify)			
22a HOSPITAL WHERE FETUS WAS DELIVERED IF NOT HOSPITAL - GIVE ADDRESS OF PERSON COMPLETING REPORT		22b CITY, VILLAGE, OR TOWNSHIP OF DELIVERY		22c COUNTY OF DELIVERY			
23 NAME OF PERSON COMPLETING REPORT (TYPE OR PRINT)		24 DATE REPORT COMPLETED (Month, Day, Year)		25 DATE REPORT RECEIVED BY DEPARTMENT (Month, Day, Year)			

R 35 1-89
 AUTHORITY
 Act 362, PA 1978

FAILURE TO PROVIDE THE REQUIRED INFORMATION IS A MISDEMEANOR PUNISHABLE BY IMPRISONMENT OF NOT MORE THAN 1 YEAR OR A FINE OF NOT MORE THAN \$1,000.00 OR BOTH

Figure 4.4

STATE OF MICHIGAN
DEPARTMENT OF PUBLIC HEALTH
CERTIFICATE OF DEATH

STATE FILE NUMBER
No 0187597

LF _____
CF _____

TYPE/PRINT IN PERMANENT BLACK INK

1 DECEDENT'S NAME (First, Middle, Last)		2 SEX	3 DATE OF DEATH (Month, Day, Year)
4a AGE - Last Birthday (Years)	4b UNDER 1 YEAR MONTHS | DAYS	4c UNDER 1 DAY HOURS | MINUTES	5 DATE OF BIRTH (Month, Day, Year)
7a LOCATION OF DEATH (Enter place officially pronounced dead in 7a, 7b, 7c.) HOSPITAL OR OTHER INSTITUTION - Name (If not in either, give street and number)		7b IF HOSP OR INST Inpatient, Op, Emer. Room, DOA (Specify)	7c CITY, VILLAGE, OR TOWNSHIP OF DEATH
8 SOCIAL SECURITY NUMBER	9a USUAL OCCUPATION (Give kind of work done during most of working life. Do not use retired)	9b KIND OF BUSINESS OR INDUSTRY	
10a CURRENT RESIDENCE - STATE	10b COUNTY	10c LOCALITY (Check one box and specify) <input type="checkbox"/> INSIDE CITY OR VILLAGE OF <input type="checkbox"/> TWP. OF	10d STREET AND NUMBER
10e ZIP CODE	11 BIRTHPLACE (City and State or Foreign Country)	12 MARITAL STATUS Married, Never Married, Widowed, Divorced (Specify)	13 SURVIVING SPOUSE (If first married)
15 ANCESTRY - Mexican, Puerto Rican, Cuban, Central or South American, Chicano, other Hispanic, Afro American, Arab, English, French, Finnish, etc. (Specify below)	16 RACE - American Indian, Alaska Native, Hawaiian, Other Pacific Islander, White, Black, etc. (Specify)	DECEDENT'S EDUCATION (Specify only highest grade completed) Elementary/Secondary (0-12) | College (1-4 or 5+)	
18 FATHER'S NAME (First, Middle, Last)		19 MOTHER'S NAME (First, Middle, Surname before first married)	
20a INFORMANT'S NAME (Type/Print)		20b HOME ADDRESS (Street and Number or Rural Route Number, City or Village, State, ZIP Code)	
21 METHOD OF DISPOSITION - Burial, Cremation, Removal, Donation, Other (Specify)		22a PLACE OF DISPOSITION (Name of Cemetery, Crematory, or other place)	22b LOCATION - City or Village, State
23 SIGNATURE OF FUNERAL SERVICE LICENSEE		24 LICENSE NUMBER (of Licensee)	25 NAME AND ADDRESS OF FACILITY
26 PART I Enter the disease(s), injuries, or complications that caused the death. Do NOT enter the mode of dying, such as cardiac or respiratory arrest, shock, or heart failure. List only one cause on each line. IMMEDIATE CAUSE (Final disease or condition resulting in death) → a _____ DUE TO (OR AS A CONSEQUENCE OF) b _____ DUE TO (OR AS A CONSEQUENCE OF) c _____ DUE TO (OR AS A CONSEQUENCE OF) d _____ Sequentially list conditions, IF ANY, leading to immediate cause. Enter UNDERLYING CAUSE (Disease or injury that initiated events resulting in death) LAST.			Approximate Interval Between Onset and Death
PART II Other significant conditions contributing to death but not resulting in the underlying cause given in Part I			27a WAS AN AUTOPSY PERFORMED? (Yes or No)
			27b WERE AUTOPSY FINDINGS AVAILABLE PRIOR TO COMPLETION OF CAUSE OF DEATH? (Yes or No)
28 ACTUAL PLACE OF DEATH (Home, Nursing Home, Hospital, Ambulance) (Specify)		29 WAS CASE REFERRED TO MEDICAL EXAMINER? (Specify Yes or No)	
30a To the best of my knowledge, death occurred at the time, date and place and due to the cause(s) stated (Signature and Title)		31a (Check one) <input type="checkbox"/> The case reviewed and determined not to be a medical examiner's case. <input type="checkbox"/> On the basis of examination and of investigation, in my opinion death occurred at the time, date and place and due to the cause(s) and manner stated.	
30b DATE SIGNED (Mo., Day, Yr.)		30c TIME OF DEATH	
30d NAME OF ATTENDING PHYSICIAN IF OTHER THAN CERTIFIER (Type or Print)		31b DATE SIGNED (Mo., Day, Yr.)	31c CASE NUMBER
		31d PRONOUNCED DEAD (Mo., Day, Yr.) ON	31e TIME OF DEATH
32a NAME AND ADDRESS OF PERSON WHO COMPLETED CAUSE OF DEATH (ITEM 26) (Type or Print)		32b LICENSE NUMBER	
33a ACC. SUICIDE, HOMIC. NATURAL OR PENDING INVEST (Specify)		33b DATE OF INJURY (Mo., Day, Yr.)	33c TIME OF INJURY
33e INJURY AT WORK (Specify Yes or No)		33d DESCRIBE HOW INJURY OCCURRED	
33f PLACE OF INJURY - At home, farm, street, factory, office building, etc. (Specify)		33g LOCATION - Street or R.F.D. No. City, Village or Twp. State	
34 REGISTRAR'S SIGNATURE		34b DATE FILED (Month, Day, Year)	

B-36
Rev. 1/89

Section 2843 of Act 368 Public Acts of 1978 requires that the attending physician shall fill out and sign the medical certificate of death within 48 hours after death.

In the absence of the attending physician and in the absence of a physician representing the attendant, medical certification must be provided as follows:

For deaths pronounced within a hospital, by the chief medical officer of the hospital based on the available records or by a pathologist.

For deaths pronounced outside a hospital, by the county medical examiner.

The funeral director is responsible for completing all other portions of the certificate and obtaining a burial or removal permit prior to disposing of the body or removing from the registration district where the death occurred.

This document must be typewritten (except signatures) or printed in black indelible ink. Alterations to the document must be accomplished using a lift off process. Damaged or folded documents are not acceptable.

Failure to provide the required information is a misdemeanor punishable by imprisonment of not more than 1 year or a fine of not more than \$1,000.00 or both.

NOTE: If the decedent is suspected of having had an infectious condition notification of the funeral director to whom the body is released may be required by Act 185 of 1986.

Figure 4.5

ROTARY MULTIFORMS, INC. • GRAND RAPIDS, MI • 616-942-2574



Marriage License

State of Michigan

STATE FILE NO.

LOCAL FILE NO.

0166087

To any person legally authorized to solemnize marriage in the State of Michigan, Marriage must be solemnized In the State of Michigan on or before _____ DATE

between and

FULL NAME OF MALE (FIRST, MIDDLE, LAST)

FULL NAME OF FEMALE (FIRST, MIDDLE, LAST)

LAST NAME BEFORE FIRST MARRIED, IF DIFFERENT

PRESENT AGE DATE OF BIRTH

PRESENT AGE DATE OF BIRTH

RESIDENCE NO. STREET

RESIDENCE NO. STREET

CITY, STATE, AND ZIP CODE

CITY, STATE, AND ZIP CODE

RESIDENCE COUNTY NUMBER OF TIMES PREVIOUSLY MARRIED

RESIDENCE COUNTY NUMBER OF TIMES PREVIOUSLY MARRIED

BIRTHPLACE - CITY AND STATE

BIRTHPLACE - CITY AND STATE

FATHER'S FULL NAME

FATHER'S FULL NAME

MOTHER'S FULL NAME BEFORE FIRST MARRIED

MOTHER'S FULL NAME BEFORE FIRST MARRIED

FATHER'S BIRTHPLACE

MOTHER'S BIRTHPLACE

FATHER'S BIRTHPLACE

MOTHER'S BIRTHPLACE

Except for signature, spaces left blank must be completed by typewriter or printed legibly.

By Authority of MCL 333.2813

This Space Reserved for Binding

An affidavit has been filed in this office by which it appears that said statements are true. This marriage license authorizes the marriage of the parties named above within the State of Michigan by any person authorized to perform a marriage ceremony under the laws of the State of Michigan.

In witness whereof,

I have signed and sealed these presents, this _____ day of _____ 19_____;

COUNTY CLERK

COUNTY

DEPUTY CLERK

* Certificate of Marriage

Between Mr. _____ and M _____

I hereby certify that, in accordance with the above license, the persons herein mentioned were joined in marriage by me, in _____, county of _____, MICHIGAN, on the _____ day of _____ A.D. 19_____, in the presence of

SIGNATURE OF WITNESS

SIGNATURE OF WITNESS

NAME OF WITNESS (TYPE OR PRINT)

NAME OF WITNESS (TYPE OR PRINT)

SIGNATURE OF MAGISTRATE OR CLERGY

NAME AND TITLE OF MAGISTRATE OR CLERGY (TYPE OR PRINT)

POST OFFICE ADDRESS OF MAGISTRATE OR CLERGY

THIS ORIGINAL must be returned WITHIN TEN DAYS AFTER THE MARRIAGE to the COUNTY CLERK, who issued the same under severe penalty. This provision must be complied with to insure a PROPER LEGAL RECORD of the marriage.

Figure 4.6

**RECORD OF
DIVORCE OR ANNULMENT**

MICHIGAN DEPARTMENT OF PUBLIC HEALTH
By authority of MCL 333.2813.

State File Number

Court Case Number

County Circuit Court

1. Husband's Name _____
First, Middle, Last

2. Husband's Birthdate _____
Month, Day, Year

3. Husband's Residence _____
City, Village or Township County State

4. Husband's Birthplace _____
State or Foreign Country

5. Number of this Marriage _____
First, Second, etc. (Specify)

6. Wife's Name _____
First, Middle, Last

7. Wife's Birthdate _____
Month, Day, Year

8. Wife's Last Name Before First Married _____

9. Wife's Residence _____
City, Village or Township County State

10. Wife's Birthplace _____
State or Foreign Country

11. Number of this Marriage _____
First, Second, etc. (Specify)

12. Place of this Marriage _____
City, Village or Township County State or Foreign Country

13. Date of this Marriage _____
Month, Day, Year

14. Date Couple Last Resided in Same Household Check If Not Separated _____
Month, Day, Year

15. Number of Minor Children in Household at Separation Date (Filing Date if Not Separated) Check If None _____
Number

16. Plaintiff Husband Wife Other

17. Plaintiff's Attorney _____
Name (Type or Print) Bar Number

18. Attorney's Address _____
Number and Street City State ZIP Code

19. Judgement of _____
Divorce/Annulment (Specify)

20. Number of Minor Children whose Physical Custody was Awarded to: Husband _____ Wife _____ Joint _____ Other _____
Number Number Number Number

No Children

21. Judgement Recorded on _____
Month, Day, Year

22. I certify that this Divorce was granted on _____
Month, Day, Year

23. Certifying Official _____
Signature Title Date Signed

SAMPLE COPY

Failure to provide the required information is a misdemeanor punishable by imprisonment of not more than 1 year or a fine of not more than \$1,000.00 or both.

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