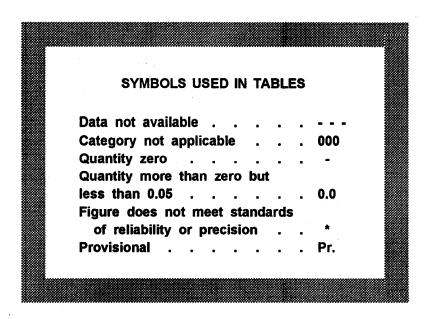
MICHIGAN DEPARTMENT OF PUBLIC HEALTH

MICHIGAN HEALTH STATISTICS



1994



Five hundred copies of this report have been printed at a total cost of \$3,736.80 and a per copy cost of \$6.23.

B 54 (12/95) AUTHORITY: ACT 368, PA1978

MICHIGAN HEALTH STATISTICS

1994

Michigan Department of Public Health

James K. Haveman, Jr., Acting Director

Office of the State Registrar and Division of Health Statistics

George H. Van Amburg, M.S., M.P.H., Chief

Contributing Authors

Health Statistics Section

Janet T. Eyster, Ph.D., Chief Kathy S. Humphrys, B.S.

The Office of the State Registrar and Division of Health Statistics gratefully acknowledges the contributions of: Berhanu Alemayehu, M.S., Michael Beebe, B.S., Sharon Crawford, Paul Moerdyk, M.S., Billie Robinson, Georgia Spivak, B.S., and Joy Weaver of Health Statistics Section. Glenn Copeland, M.B.A., Chief of Vital and Health Records Section, Joanne Hansen, Ray Humphrys, Ph.D., Theresa Page, and Valerie Thomann of Vital and Health Records Section. Maria Abrigo, Linda Coon, Carol Cunningham, Lesa Feher, Mary Johns, SanJuanita Smith and Elaine Weber of Nosology Unit. Ellen Anderson-Dunsmore, Sue Harrington, Sandra Humphrey, Linda Pung, Linda Simpson, Deris Southworth and Pat Wickerham of Registration Unit.

TABLE OF CONTENTS

INTRODUCTION	1
TECHNICAL NOTES, DEFINITIONS, RATES AND RATIOS	2
QUALIFICATIONS AND LIMITATIONS OF DATA AND CALCULATIONS	6
COUNTY AND STATE HEALTH STATISTICS PROFILES	9
NATALITY	
Key Trends	
Live Births	98
Age, Race and Ancestry	100
Fertility	
Age-Specific Live Birth Rates	104
Birth Order	
Interpregnancy Time Period	106
Prenatal Care	107
Birth Weight	
Congenital Anomalies	113
Medical Factors Associated With Delivery and/or Labor	114
Place of Occurrence	119
Fetal Deaths	120
Causes of Fetal Death	121
Age, Race and Ancestry	
Fetal Weight	122
Medical and Other Risk Factors for Fetal Deaths	123
Prenatal Care	
MORTALITY	125
Overview	
Trends in Michigan	128
Michigan and United States Mortality	129
Mortality Differences by Sex and Race	130
Mortality by Race and Ancestry	132
Number of Deaths by Age, Race and Sex	133
Age-Specific Mortality by Race	134
Life Expectancy	136
Trend in Life Expectancy	136
Life Expectancy by Race	136
Years of Life Remaining	137
Marital Status	138
Place of Occurrence	138
TIME OF COMMISSION	

iv Table of Contents

Leading Causes of Death	9
Communicable Disease Deaths	
Years of Potential Life Lost Below Age 65	0
Infant Deaths	1
ARRIAGE AND DIVORCE	53
Key Trends	55
Marriages	55
Residence of Couples Marrying in Michigan	6
Month of Marriage	
Age at Marriage	
First Marriages	
Median Age at First Marriage	
Remarriages	
Divorces and Annulments	
EFERENCE APPENDIX	73

LIST OF TABLES

NATALITY
An Overview, 1994
Table 1.1 Live Births and Crude Birth Rates, Michigan and United States Residents, Selected
Years, 1900-1994
Table 1.2 Live Births and Percent Distribution by Age, Race and Ancestry of Mother,
Michigan Residents, 1994
Table 1.3 Fertility Rates, Michigan and United States Residents, Selected Years, 1900-1994 100
Table 1.4 Fertility Rates by Race of Mother, Michigan Residents, Selected Years, 1970-1994 100
Table 1.5 Live Births to Women Reporting Prior Pregnancy Terminations by Time Span
Between Last and Current Termination and by Whether Prior Termination Resulted in a
Live Birth or a Fetal Death, Michigan Residents, 1994
Table 1.6 Numbers and Percents of Live Births with Prenatal Care Beginning in the First
Trimester by Age, Race and Ancestry of Mother, Michigan Residents, 1994
Table 1.7 Live Births and Birth Ratios with No Prenatal Care by Age and Race of Mother,
Michigan Residents, 1994
Table 1.8 Numbers and Percents of Live Births by Level of Prenatal Care, Race and Ancestry
of Mother, Michigan Residents, 1994
Table 1.9 Numbers and Percents of Live Births by Birth Weight, Race and Ancestry of
Mother, Michigan Residents, 1994
Table 1.10 Low Weight Live Births and Low Birth Weight Percentages by Level of Prenatal
Care, Race and Ancestry of Mother, Michigan Residents, 1994
Table 1.11 Live Births with Congenital Anomalies Reported and Congenital Anomaly Rates
by Age and Race of Mother, Michigan Residents, 1994
Table 1.12 Numbers and Percents of Live Births by Complications of Labor/Delivery, Race
and Ancestry of Mother, Michigan Residents, 1994
Table 1.13 Numbers and Percents of Live Births by Maternal Risk Factors, Race and Ancestry
of Mother, Michigan Residents, 1994
Table 1.14 Numbers and Percents of Live Births by Medical Risk Factors, Race and Ancestry
of Mother, Michigan Residents, 1994
Table 1.15 Numbers and Percents of Live Births by Method of Delivery, Race and Ancestry of
Mother, Michigan Residents, 1994
Table 1.16 Numbers and Percents of Live Births with Abnormal Conditions by Race and
Ancestry of Mother, Michigan Residents, 1994
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, 1994 11
Table 1.18 Fetal Deaths and Fetal Death Ratios, Michigan and United States Residents Selected Years, 1900-1994
Table 1.19 Fetal Deaths and Fetal Death Ratios by Underlying Cause of Death, Michigan
Residents, 1994
NOSIUGIIS, 1777

Table 1.20 Fetal Deaths, Total Births and Fetal Death Rates by Age, Race and Ancestry of
Mother, Michigan Residents, 1994
Table 1.21 Fetal Deaths by Fetal Weight, Michigan Residents, 1994
Table 1.22 Numbers and Percents of Fetal Deaths, and Fetal Death Rates by Medical and
Other Risk Factors, Michigan Residents, 1994
Table 1.23 Fetal Deaths, Total Births and Fetal Death Rates by Level of Prenatal Care and
Race of Mother, Michigan Residents, 1994
MORTALITY
An Overview, 1994
Table 2.1 Number of Deaths and Crude Death Rates, Michigan and United States Residents,
1970-1994
Table 2.2 Number of Deaths by Race and Ancestry, Michigan Residents, Selected Years, 1980-1994 13
Table 2.3 Number of Deaths by Age, Race and Sex, Michigan Residents, 1994
Table 2.4 Death Rates by Age and Race, Michigan Residents, 1994
Table 2.5 Death Rates by Age and Race, Michigan Male Residents, 1994
Table 2.6 Death Rates by Age and Race, Michigan Female Residents, 1994
Table 2.7 Life Expectancy at Birth by Sex, Michigan and United States Residents, Selected Years, 1901-1994
Table 2.8 Life Expectancy at Birth by Sex and Race, Michigan Residents, Selected Years, 1950-1994
Table 2.9 Deaths by Sex and Marital Status, Michigan Residents, 1994
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, 1994 13
Table 2.11 Leading Causes of Death and Cause-Specific Rates, Michigan and United States
Residents, 1994
Table 2.12 Leading Causes of Death by Race and Sex, Michigan Residents, 1994
Table 2.13 Leading Causes of Death and Crude Death Rates by Race and Sex, Michigan
Residents, 1994
Table 2.14 Leading Causes of Death and Age-Adjusted Death Rates by Race and Sex,
Michigan Residents, 1994
Table 2.15 Leading Causes of Death and Cause-Specific Rates by Age, Michigan Residents, 1994 14
Table 2.16 Leading Causes of Death and Cause-Specific Rates by Age, Michigan Resident White Males, 1994
Table 2.17 Leading Causes of Death and Cause-Specific Rates by Age, Michigan Resident
Black Males, 1994
Table 2.18 Leading Causes of Death and Cause-Specific Rates by Age, Michigan Resident
White Females, 1994
Table 2.19 Leading Causes of Death and Cause-Specific Rates by Age, Michigan Resident
Black Females, 1994
Table 2.20 Deaths from Selected Infectious and Parasitic Diseases, Michigan Residents, 1994 14

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, 1994
Table 2.22 Infant Deaths and Infant Death Rates, Michigan and United States Residents, Selected Years, 1950-1994
Table 2.23 Infant Deaths and Infant Death Rates by Age at Death, Michigan Residents,
Selected Years, 1970-1994
Table 2.24 Infant, Hebdomadal, Fetal and Perinatal Death Rates by Specified Race and Ancestry,
Michigan Residents, 1994
Table 2.25 Infant Deaths by Age at Death and Underlying Cause, Michigan Residents, 1994
Table 2.26 Infant Deaths and Infant Death Rates by Race and Underlying Cause, Michigan
Residents, 1994
Table 2.27 Infant Deaths and Infant Death Rates by Sex of Infant and Underlying Cause,
Michigan Residents, 1994
Table 2.28 Infant Deaths, Live Births and Infant Death Rates by Age and Race of Mother,
Michigan Residents, 1994
Table 2.29 Infant Deaths, Live Births and Infant Death Rates by Level of Prenatal Care and
Race, Michigan Residents, 1994
Table 2.30 Live Births, Infant Deaths and Infant Death Rates by Birth Weight, Age at Death
and Race, Michigan Residents, 1994
Table 2.31 Infant Deaths and Infant Death Rates by Race of Mother, Smoking Status During
Pregnancy and Underlying Cause of Death, Michigan Residents, 1994
Table 2.32 Perinatal Deaths, Total Births and Perinatal Death Rates by Age and Race of
Mother, Michigan Residents, 1994
Table 2.33 Perinatal Deaths, Total Births and Perinatal Death Rates by Level of Prenatal Care
and Race of Mother, Michigan Residents, 1994
MARRIAGE AND DIVORCE
An Overview, 1994
Table 3.1 Marriages and Marriage Rates, Michigan and United States Occurrences, Selected
Years, 1900-1994
Table 3.2 Number of Marriages and Marriage Rates by Age and Sex, Michigan Occurrences,
1974, 1984 and 1994
Table 3.3 Number of Marriages of Brides by Age and Order of Marriage, Michigan
Occurrences, 1984 and 1994
Table 3.4 Number of Marriages of Grooms by Age and Order of Marriage, Michigan
Occurrences, 1984 and 1994
Table 3.5 Number of Divorces and Annulments, Divorce and Annulment Rates, Michigan and
United States Occurrences, Selected Years, 1900-1994
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 1960-1994

REFERENCE APPENDIX

Table 4.1 Population, Live Births, Deaths (All Ages, Infant, Neonatal, Postneonatal, Permatal,
Fetal and Maternal), Marriages and Divorces, Michigan, 1900-1994
Table 4.2 Live Birth Rates, Death Rates (All Ages, Infant, Neonatal, Postneonatal, Perinatal
and Maternal), Fetal Death Ratios, Marriage and Divorce Rates, Michigan, 1900-1994 175
Table 4.3 Number of Live Births by Age of Mother, Michigan Residents, 1920-1994
Table 4.4 Live Birth Rates by Age of Mother, Michigan Residents, 1920-1994
Table 4.5 Reported Cases of Certain Communicable Diseases, Michigan Residents, 1900-1994 184
Table 4.6 Case Rates of Certain Reported Communicable Diseases, Michigan Residents, 1900-1994 180
Table 4.7 Number of Deaths and Death Rates for Certain Communicable Diseases, Michigan
Residents, 1900-1994
Table 4.8 Number of Deaths and Death Rates by Specified Causes, Michigan Residents, 1900-1994 192
Table 4.9 Selected Vital Statistics by County, Michigan Residents, 1994
Table 4.10 Selected Vital Statistics Rates by County, Michigan Residents, 1994
Table 4.11 Live Births with Selected Risk Factors by County, Michigan Residents, 1994 200
Table 4.12 Live Births by Age of Mother and County, Michigan Residents, 1994
Table 4.13 Vital Statistics for Residents of Selected Michigan Cities, Michigan Residents, 1994 20
Table 4.14 Number of Deaths by Underlying Cause and County, Michigan Residents, 1994 20
Table 4.15 Reported Cases of Certain Communicable Diseases by County, Michigan Residents, 1994 21
Table 4.16 Number of Deaths by Cause, Michigan Residents, 1994
Table 4.17 Population Changes by County, Michigan, 1982 and 1992
Table 4.18 Population by Age, Race and Sex, Michigan Residents, 1992
Table 4.19 Abridged Life Table, Michigan Residents, 1994
Table 4.20 Abridged Life Table for Males, Michigan Residents, 1994
Table 4.21 Abridged Life Table for Females, Michigan Residents, 1994
Table 4.22 Abridged Life Table for Whites, Michigan Residents, 1994
Table 4.23 Abridged Life Table for White Males, Michigan Residents, 1994
Table 4.24 Abridged Life Table for White Females, Michigan Residents, 1994
Table 4.25 Abridged Life Table for Blacks, Michigan Residents, 1994
Table 4.26 Abridged Life Table for Black Males, Michigan Residents, 1994
Table 4.27 Abridged Life Table for Black Females, Michigan Residents, 1994
Table 4.28 Age-Adjusted Death Rates by Race and Sex, Michigan and United States
Residents, 1970-1994

LIST OF FIGURES

NATALITY
Figure 1.1 Live Births, Michigan Residents, 1900-1994 99
Figure 1.2 Live Birth Rates, Michigan Residents, 1900-1994 and United States Residents, 1909-1994 99
Figure 1.3 Live Births by Mother's Race or National Origin, Michigan Residents, 1974 and 1994 100
Figure 1.4 Total Fertility Rates, Michigan Residents, 1920-1994 and United States Residents,
1920-1993
Figure 1.5 Age-Specific Live Birth Rates, Michigan Residents, 1970-1994
Figure 1.6 Age-Specific Live Birth Rates to White Mothers, Michigan Residents, 1980-1994 105
Figure 1.7 Age-Specific Live Birth Rates to Black Mothers, Michigan Residents, 1980-1994 105
Figure 1.8 First Births as a Percentage of All Live Births, Michigan Residents, 1960-1994 and
United States Residents, 1960-1993
Figure 1.9 Percent of Women Having Live Births Who Received Care Prior to the 4th Month
and 6th Month of Pregnancy, Michigan Residents, 1970-1994
Figure 1.10 Low Birth Weight Ratios, Michigan Residents by Race, 1960-1994 and United
States Residents, 1960-1993
Figure 1.11 Fetal Deaths, Michigan Residents, 1900-1994
Figure 1.12 Fetal Death Ratios, Michigan Residents 1900-1994 and United States Residents 1922-1991. 120
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, 1970-1994
A CODE AT LETY
MORTALITY 2.1 Co.d. Death Peter Mishings and United States Penidents, 1900-1904
Figure 2.1 Crude Death Rates, Michigan and United States Residents, 1900-1994
Figure 2.2 Total Age-Adjusted Death Rates by Sex, Michigan and United States Residents, 1970-1994. 130
Figure 2.3 White Age-Adjusted Death Rates by Sex, Michigan and United States Residents, 1970-1994
Figure 2.4 Black Age-Adjusted Death Rates by Sex, Michigan and United States Residents,
1970-1994
Figure 2.5 Remaining Years of Life by Age, Sex and Race, Michigan Residents, 1994
Figure 2.6 Leading Causes of Death, Michigan Residents, 1994
Figure 2.6 Leading Causes of Death, Michigan Residents, 1994
1915-1994
Figure 2.8 Infant Death Rates by Race, Michigan Residents, 1980-1994
Figure 2.6 illiant Death Rates by Race, Michigan Residents, 1960 1997
MARRIAGE AND DIVORCE
Figure 3.1 Marriage Rates, Michigan and United States Occurrences, 1900-1994
Figure 3.2 Marriages by Month, Michigan Occurrences, 1994
Figure 3.3 Median Age at First Marriage by Sex, Michigan Occurrences, 1953-1994 169
Figure 3.4 Percent of All Marriages that are Remarriages, Michigan Occurrences, 1960-1994 169
Figure 3.5 Divorce Rates, Michigan and United States Occurrences, 1900-1994

x List of Figures

REFERENCE APPENDIX	
Figure 4.1 Rate of Natural Increase, Michigan, 1906-1994 and the United States, 1909-1994	175
Figure 4.2 Michigan Live Birth Certificate	235
Figure 4.3 Michigan Fetal Death Certificate	236
Figure 4.4 Michigan Death Certificate	237
Figure 4.5 Michigan Marriage License	238
Figure 4.6 Michigan Divorce Record	239

INTRODUCTION

The 1994 edition of Michigan Health Statistics is a statistical summary of vital events for calendar year 1994. 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 1994, 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, 1995, and all in-state certificates and records received prior to March 15, 1995. Although a few additional records for the calendar year 1994 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.

Office of the State Registrar and Division of Health Statistics Michigan Department of Public Health 3423 N. Martin L. King Jr., Blvd. P.O. Box 30195 Lansing, Michigan 48909 Area Code (517) 335-8705

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 -

nqx = 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).

lx =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.

nLx = The number of person-years that would belived 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.

Tx = 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.

ex = 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 town-ship.

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.

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 x 1,000.

AGE-SPECIFIC DEATH RATE - Number of resident deaths in specific age group divided by total resident population in specific age group x 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 x 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 x 1,000.

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

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

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

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

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

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

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

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

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

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

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

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

MARRIAGE RATE - Number of occurrent marriages divided by total resident population x 1,000.

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

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

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

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

RELIABILITY OF RATES

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

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

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

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 underreporting 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 nqx. 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 Division of 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 1970-1994 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 1993 and 1994 provisional data are based on the 1990 census enumeration and therefore are comparable to those used for the 1992 and 1993 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 of 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.

POPULATION As of April 1, 1992: Rank Among Counties: Per Square Mile:	9,433,666 165.6	NATALITY Total Live Births: Teenage Mothers: Low Weight Births: First Births:	137,844 17,448 10,765 54,548	MORTALITY Total Deaths: Infant Deaths: Neonatal Deaths: Postneonatal Deaths: Perinatal Deaths: Fetal Deaths:	82,644 1,184 775 409 1,388 731	
---	--------------------	---	---------------------------------------	--	---	--



MARRIAGE DIVORCE 70,966 Divorces:

Marriages: Marriage Rate: 39,795 15.0 Divorce Rate:

NATALITY BY RACE OF MOTHER

	Total		w	'hite	ві	ack	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Live Births	137,844	14.6	106,828	13.5	27,129	20.3	3,137	17.5	
	Total		White		Black		Other		
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio	
Teenage Mothers	17,448	126.6	10,509	98.4	6,591	243.0	308	98.2	
Low Weight	10,765	78.1	6,580	61.6	3,902	143.8	222	70.8	
Under 1,500 Grams	2.201	16.0	1,216	11.4	943	34.8	29	9.2	
< 38 Weeks Gestation	24,486	177.6	16,769	157.0	7,058	260.2	551	175.6	
Prenatal Care Began in 1st Trimester	110,250	799.8	89,972	842.2	17,368	640.2	2,434	775.9	

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Bla	ck	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Infant Deaths	1.184	8.6	670	6.3	495	18.2	19	6.1	
Neonatal Deaths	775	5.6	428	4.0	334	12.3	13	4.1	
Postneonatal Deaths	409	3.0	242	2.3	161	5.9	6	1.9	
Perinatal Deaths	1.388	10.0	853	7.9	482	17.6	36	11.4	
Fetal Deaths	431	5.3	496	4.6	194	7.1	24	7.6	

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

Deaths	Total 82,644	All Races Male 41,747	Fer	naie ,890	Total 69,409	White Male 34,427	Female 34,978	Total 12,572	Black Male 6,951	Female 5,618	Total 631	Other Male 349	Female 282
						А	ge 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	1,184	263	123	191	609	742	740	2,564	4,116	6,377	13,040	52,688	7
White Male	357	91	52	97	273	321	346	1,216	1,779	2,967	6,356	20,569	3
White Female	310	70	29	43	117	112	118	492	978	1,926	4,394	26,387	2
Black Male	265	51	25	29	171	241	203	548	813	847	1,220	2,537	1
Black Female	227	41	14	18	39	52	63	274	489	550	909	2,941	1
Other Male	9	5		2	5	8	7	18	24	52	91	128	-
Other Female	10	5	3	2	4	7	3	13	30	29	65	111	-

LEADING CAUSES OF DEATH

	To	tal	Wh	ite	Bla	ack	Children Ag	jes 1-19
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	82.644	876.1	69,409	876.7	12,572	940.0	1,186	45.1
Diseases of the Heart	28,195	298.9	24.237	306.1	3,785	283.0	24	0.9
Malignant Neoplasms	19,410	205.8	16,600	209.7	2.643	197.6	105	4.0
Cerebrovascular Diseases	5,680	60.2	4,845	61.2	792	59.2	8	0.3
Accidents and Adverse Effects	2,928	31.0	2,451	31.0	412	30.8	488	18.6
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	3,447	36.5	3,126	39.5	298	22.3	10	0.4
Pneumonia and Influenza	2,877	30.5	2,477	31.3	385	28.8	15	0.6
Diabetes Mellitus	2,224	23.6	1,824 *	23.0	375	28.0	-	-
Chronic Liver Disease and Cirrhosis	1,035	11.0	789	10.0	232	17.3	1	•
Homicide	1.023	10.8	289	3.7	727	54.4	191	7.3
Suicide	1,022	10.8	901	11.4	111	8.3	86	3.3
Atherosclerosis	805	8.5	743	9.4	57	4.3	-	-
Alds	757	8.0	353	4.5	402	30.1	9	0.3

Profile of Alcona County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1992:	10,254	Total Live Births:	105	Total Deaths:	167
Rank Among Counties:	74	Teenage Mothers:	22	Infant Deaths:	-
Per Square Mile:	15.1	Low Weight Births:	5	Neonatal Deaths:	-
		First Births:	44	Postneonatal Deaths:	
				Perinatal Deaths:	-
				Fetal Deaths:	-
MARRIAGE		DIVORCE			
Marriages:	76	Divorces:	44		
Marriage Rate:	14.8	Divorce Rate:	8.6		



NATALITY BY RACE OF MOTHER

	То	Total		hite	Bl	ack	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Live Births	105	10.2	102	10.1	-	•	2	*	
	Тс	otal	w	hite	BI	ack	Ott	ner	
ŀ	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio	
Teenage Mothers	22	209.5	21	205.9	-	•	1	*	
Low Weight	5	*	4	•	-	-	•	-	
Under 1,500 Grams	1	*	1	•	-	-	-	-	
< 38 Weeks Gestation Prenatal Care Began in	13	123.8	13	127.5	-	-	•	-	
1st Trimester	91	866.7	90	882.4	-	-	1	*	

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		Whi	ite	Blac	ck	Other		
1	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 1994 in specified group.

MORTALITY

		Ali Rac	es			White			Biack			Other	
	Total	Male	Fer	male	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	167	93	7	74	167	93	74	-	•	•	-	-	•
						A	ge in Years						
	<1	1-4	5-9	10-14	15-19	20-24		30-39	40-49	50-59	60-69	70+	Unk
Total Deaths			-	1	1	-	-	1	8	11	27	118	-
White Male		_	-	1	-	-	-	1	5	6	19	61	-
White Female		-	-	-	1	-	-	-	3	5	8	57	•
Black Male		_	-	-	-	-	-	-	•	-	-	-	-
Black Female		-	-	-	-	-	-	-	-	-	-	•	-
Other Male	-	-	-	-	•	-	-	•	•	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	•	•	-	-

LEADING CAUSES OF DEATH

	T	otal	W	'hite	Bla	ck	Children Ag	jes 1-19
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	167	1,628.6	167	1,649.7	•	-	2	*
Diseases of the Heart	47	458.4	47	464.3	-	•	-	
Malignant Neoplasms	43	419.4	43	424.8	-	-	1	•
Cerebrovascular Diseases	16	156.1	16	158.1	-	•	-	
Accidents and Adverse Effects	7	68.3	7	69.1	-	-	1	
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	8	78.0	8	79.0	•	-	-	-
Pneumonia and Influenza	11	107.3	11	108.7	•	-	-	-
Diabetes Mellitus	1	*	1	•	-	-	-	-
Chronic Liver Disease and Cirrhosis	3	•	3	•	-	-	-	-
Homicide	-	-	-	-	-		-	-
Suicide	2	•	2	•	-	-	-	-
Atherosclerosis	1		1	•	-	-	-	
AIDS		-	-	-	-	-	-	

POPULATION		NATALITY		MORTALITY	
As of April 1, 1992:	9.349	Total Live Births:	82	Total Deaths:	101
Rank Among Counties:	76	Teenage Mothers:	13	Infant Deaths:	1
Per Square Mile:	10.3	Low Weight Births:	3	Neonatal Deaths:	1
		First Births:	34	Postneonatal Deaths:	-
				Perinatal Deaths:	1
				Fetal Deaths:	-
MARRIAGE		DIVORCE			
Marriages:	78	Divorces:	31		
Marriage Rate:	16.7	Divorce Rate:	6.6		



NATALITY BY RACE OF MOTHER

	To	otal	w	hite	Bl	ack	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Live Births	82	8.8	78	8.9	-	-	3	•	
	To	xtal	w	hite	В	ack	Ott	ner	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio	
Teenage Mothers	13	158.5	13	166.7	•	-	-	-	
Low Weight	3	*	3	*	-	-	-	-	
Under 1,500 Grams	-	-	-	-	-	-	-	-	
< 38 Weeks Gestation	8	97.6	8	102.6	-	-	-	-	
Prenatal Care Began in									
1st Trimester	66	804.9	62	794.9	-	-	3	•	

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		Wh	ite	Bla	ck	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Infant Deaths	1	*	1	•	-	-	-	-	
Neonatal Deaths	1		1	*	-	-	-	•	
Postneonatal Deaths	•	-	-	-	•	-	-	-	
Perinatal Deaths	1	•	1	*	-	-	•	-	
Fetal Deaths	-	-	-	-	-	•	•	•	

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

Deaths	Total 101	All Race Male 48	Fer	nale 3	Total 99	White Male 46	Female 53	Total 1	Black Male 1	Female -	Total 1	Other Male 1	Female -
						A	ge 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	4	12	78	-
White Male	1	-	-	-	-	-	1	1	2	2	8	31	-
White Female		-	-	-		-	-	-	1	2	3	47	-
Black Male	-	-		-	-	-	1	-	-	-	-	-	-
Black Female		-		-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-		-	-	-	-	-	-	1	•	-
Other Female	-	-	-	-	-	-	-	-	-	-	•	-	-

LEADING CAUSES OF DEATH

	T	otal	W	'hite	Bla	ck	Children Ag	jes 1-19
1	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	101	1,080.3	99	1,134.7	1	•	•	•
Diseases of the Heart	36	385.1	36	412.6	-	-	-	•
Malignant Neoplasms	25	267.4	25	286.5	•	•	-	
Cerebrovascular Diseases	9	96.3	9	103.2	-	-	-	
Accidents and Adverse Effects	2	*	2	•	-	•	•	
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	5	*	4	•	-	-	•	
Pneumonia and Influenza	3	•	3	•	-	-	-	
Diabetes Mellitus	5	•	5	•	-	-	-	
Chronic Liver Disease and Cirrhosis	3	*	3	*	•	-	-	
Homicide	-	-	-	-	-	-	•	
Suicide	1	•	1	•	-	-	-	
Atherosclerosis	2	•	2	*	-	-	-	
AIDS	1	*	1	•	-	-	-	•

POPULATION		NATALITY		MORTALITY	
As of April 1, 1992:	93.078	Total Live Births:	1,399	Total Deaths:	746
Rank Among Counties:	21	Teenage Mothers:	183	Infant Deaths:	7
Per Square Mile:	111.9	Low Weight Births:	89	Neonatal Deaths:	5
		First Births:	507	Postneonatal Deaths:	2
				Perinatal Deaths:	10
				Fetal Deaths:	5
MARRIAGE		DIVORCE			
Marriages:	770	Divorces:	441		
Маптаде Rate:	16.5	Divorce Rate:	9.5		



NATALITY BY RACE OF MOTHER

	To	tal	w	hite	81	ack	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Live Births	1,399	15.0	1,365	15.1	23	15.5	11	10.3	
	To	tal	w	hite	ВІ	ack	Oti	ner	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio	
Teenage Mothers	183	130.8	175	128.2	7	304.3	1	•	
Low Weight	89	63.6	84	61.5	3	*	2		
Under 1,500 Grams	18	12.9	17	12.5	1	•	-	-	
< 38 Weeks Gestation	217	155.1	205	150.2	9	391.3	3		
Prenatal Care Began in 1st Trimester	1,113	795.6	1,089	797.8	14	608.7	10	909.1	

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
1	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	7	5.0	6	4.4	-	-	1	•
Neonatal Deaths	5		4	*		-	1	*
Postneonatal Deaths	2	*	2	•	-	-	-	-
Perinatal Deaths	10	7.1	9	6.6	-	-	1	*
Fetal Deaths	5	*	5	•	-	-	•	-

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

Deaths	Total 746	Ali Rad Male 377	e Fer	nale 59	Total 732	White Male 371	Female 361	Total 11	Black Male 4	Female 7	Total 3	Other Male 2	Female 1
						A	ge in Years						
l	<1	1-4	5-9	10-14	15-19	20-24		30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	7	· 3	•	2	10	10	1	20	31	55	110	497	-
White Male	5	2	-	1	6	8	1	13	21	36	67	211	-
White Female	1	1		1	4	2	-	7	9	17	40	279	-
Black Male	-	-	-	-	-	-	-	-	-	1	1	2	-
Black Female		-	-	-		-	-	-	1	1	1	4	-
Other Male	-	-	-	-	-	-	-	-	-	-	1	1	-
Other Female	1	-	-	-	-	-	•	-	-	-	-	-	•

LEADING CAUSES OF DEATH

	Total		W	nite	Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	746	801.5	732	808.7	11	741.2	15	52.5
Diseases of the Heart	246	264.3	241	266.2	5	*	-	-
Malignant Neoplasms	175	188.0	173	191.1	1	•	1	•
Cerebrovascular Diseases	53	56.9	52	57.4	1	*	-	•
Accidents and Adverse Effects	44	47.3	43	47.5	1	*	12	42.0
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	24	25.8	24	26.5	•	-	-	-
Pneumonia and Influenza	44	47.3	43	47.5	1	•	-	-
Diabetes Mellitus	25	26.9	24	26.5	-	-	-	-
Chronic Liver Disease and Cirrhosis	3	*	3	*	•	-	-	-
Homicide	1	*	1	•	-	-	1	
Suicide	12	12.9	12	13.3	-	-	-	-
Atherosclerosis	5	*	5	*	-	-	-	-
AIDS	4	*	4	*	-	-	-	•

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

Profile of Alpena County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1992:	31,000	Total Live Births:	356	Total Deaths:	318
Rank Among Counties:	46	Teenage Mothers:	47	Infant Deaths:	1
Per Square Mile:	54.6	Low Weight Births:	33	Neonatal Deaths:	-
. 5. 5422.5		First Births:	138	Postneonatal Deaths:	1
l				Perinatal Deaths:	5
				Fetal Deaths:	5
MARRIAGE		DIVORCE			
Marriages:	253	Divorces:	149		
Marriage Rate:	16.3	Divorce Rate:	9.6		



NATALITY BY RACE OF MOTHER

	To	otal	w	hite	ВІ	ack	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Live Births	356	11.5	354	11.5	-	-	2	•	
	To	xtal	w	hite	ВІ	ack	Oti	ner	
l	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio	
Teenage Mothers	47	132.0	47	132.8	-	-	•	-	
Low Weight	33	92.7	33	93.2	•	-	-	-	
Under 1,500 Grams	1	*	1	*	-	•	-	-	
< 38 Weeks Gestation	80	224.7	80	226.0	•	-	•	-	
Prenatal Care Began in									
1st Trimester	323	907.3	321	906.8	•	•	2	*	

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Bla	ck	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Infant Deaths	1	*	1	*	•	-	-	-	
Neonatal Deaths	-	-	-	-	•	•	-	-	
Postneonatal Deaths	1	•	1	*	-	-	•	-	
Perinatal Deaths	5	•	5	•	•	-	-	•	
Fetal Deaths	5	*	5	*	-	-	-	-	

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

		All Rac	es			White			Black			Other	
]	Total	Male	Fer	nale	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	318	175	1.	43	315	172	143	•	-	-	3	3	-
						A	ge 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	6	13	22	46	226	-
White Male	1	-	-		1	-	2	5	8	15	25	115	-
White Female	-		-	-	•	-	1	1	5	6	20	110	- 1
Black Male	-	-	-	-	-	-	-	-	-	-	•	-	- 1
Black Female	-	-	-	-	-	•	-	-	-	-	-	-	-
Other Male	-	•	-	-	•	-	-	-	-	1	1	1	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	-

LEADING CAUSES OF DEATH

	T.	otal	w	'hite	Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	318	1,025.8	315	1,024.2	-	-	1	*
Diseases of the Heart	104	335.5	104	338.1	•	•	-	•
Malignant Neoplasms	80	258.1	78	253.6	-	-	-	-
Cerebrovascular Diseases	19	61.3	19	61.8	•	-	-	-
Accidents and Adverse Effects	15	48.4	15	48.8		-	1	*
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	17	54.8	17	55.3	-	-	-	-
Pneumonia and Influenza	15	48.4	15	48.8	-	•	-	-
Diabetes Mellitus	5	*	5	•	-	-	•	-
Chronic Liver Disease and Cirrhosis	-	•	-	•	-	•	-	-
Homicide	-	-	-	-	•	-	-	-
Suicide	2	•	2	*	-	-	-	-
Atherosclerosis	1	*	1	*	-	-	-	-
AIDS	-	-	-	-	-	-	-	-

Note: Rate is per 100,000 estimated population in 1992 in specified group. Office of the State Registrar and Division of Health Statistics, MDPH

POPULATION	* *	NATALITY		MORTALITY	
As of April 1, 1992:	18,897	Total Live Births:	258	Total Deaths:	217
Rank Among Counties:	63	Teenage Mothers:	36	Infant Deaths:	2
Per Square Mile:	39.4	Low Weight Births:	16	Neonatal Deaths:	1
1 - 1 - 1 - 1 - 1		First Births:	106	Postneonatal Deaths:	1
				Perinatal Deaths:	3
				Fetal Deaths:	2
MARRIAGE		DIVORCE		· can b cause.	_
Marriages:	167	Divorces:	86		
Маггіаде Rate:	17.7	Divorce Rate:	9.1		



NATALITY BY RACE OF MOTHER

	To	Total		hite	ВІ	ack	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Live Births	258	13.7	250	13.4	-	•	7	26.3	
	To	otal	w	'hite	Ві	ack	Ott	ner	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio	
Teenage Mothers	36	139.5	34	136.0	•	-	. 2	*	
Low Weight	16	62.0	15	60.0	-	-	1	*	
Under 1,500 Grams	2	*	2	*	-	•		-	
< 38 Weeks Gestation	44	170.5	44	176.0	-	-	-	-	
Prenatal Care Began in									
1st Trimester	186	720.9	181	724.0	•	•	4	*	

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		Whi	ite	Bla	ck	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 1994 in specified group.

MORTALITY

Deaths	Total 217	All Race Male 108	Fen	nale 09	Total 211	White Male 105	Female 106	Total -	Black Male -	Female -	Total 6	Other Male 3	Female 3
						A	ge 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		-	1	3	-	3	9	20	37	140	-
White Male	1	1	-	-	1	1	-	3	6	10	21	61	-
White Female	1	1	-	-	-	1	-	-	3	9	14	77	-
Black Male	-	-	-	-	•	-	-	•	•	-	-	-	-
Black Female		-	-	-	-	-	-	•	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	1	1	1	-
Other Female	-	-	-	-	-	1	-	-	•	-	1	1	-

LEADING CAUSES OF DEATH

	To	otal	W	hite	Bla	ck	Children Ag	es 1-19
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	217	1,148.3	211	1,134.3	-	-	3	*
Diseases of the Heart	74	391.6	71	381.7	•	-	-	-
Malignant Neoplasms	57	301.6	56	301.0	-	-	-	-
Cerebrovascular Diseases	16	84.7	16	86.0	-	-	•	-
Accidents and Adverse Effects	11	58.2	10	53.8	-	•	2	•
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	8	42.3	8	43.0	-	-	-	-
Pneumonia and Influenza	5	•	5	•	•	-	•	-
Diabetes Mellitus	3	*	3	•	-	-	-	-
Chronic Liver Disease and Cirrhosis	3	*	3	•	-	-	-	•
Homicide	-	-	-	-	-	-	-	-
Suicide	2	*	2	•	-	•	1	*
Atherosclerosis	5	*	4	•	-	-	-	-
AIDS	1	*	1	•	•	-	-	-

POPULATION		NATALITY		MORTALITY	
As of April 1, 1992:	15.625	Total Live Births:	194	Total Deaths:	188
Rank Among Counties:	66	Teenage Mothers:	20	Infant Deaths:	2
Per Square Mile:	42.5	Low Weight Births:	11	Neonatal Deaths:	2
. 0, 0444.0		First Births:	72	Postneonatal Deaths:	-
				Perinatal Deaths:	4
				Fetal Deaths:	3
MARRIAGE		DIVORCE			
Marriages:	107	Divorces:	61		
Marriage Rate:	13.7	Divorce Rate:	7.8		



NATALITY BY RACE OF MOTHER

	To	tal	w	hite	Bla	ack	Oth	er
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	194	12.4	193	12.5	-	-	•	-
	To	tal	w	hite	Bla	ack	Ott	er
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	20	103.1	20	103.6	-	-	•	-
Low Weight	11	56.7	11	57.0	-	-	-	•
Under 1,500 Grams	2	•	2	*	•	-	-	-
< 38 Weeks Gestation	34	175.3	34	176.2	-	-	-	-
Prenatal Care Began in								
1st Trimester	158	814.4	158	818.7	-	-	-	-

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tot	al	Wh	ite	Bla	ck	Oth	er
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	2	*	2	*	-	-	-	-
Neonatal Deaths	2	*	2	*	-	-	-	-
Postneonatal Deaths	-	-	-	-	•	•	-	-
Perinatal Deaths	4	*	4		-	-	-	•
Fetal Deaths	3	•	3	•	-	-	-	•

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

Deaths	Total 188	All Rac Male 116	Fer	nale '2	Totai 185	White Male 114	Female 71	Total -	Black Male -	Female	Total 3	Other Male 2	Female
						A	je 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	-	-	9	9	7	36	124	-
White Male	2	-	-	-		-	-	7	6	5	24	70	-
White Female	-	-	-	-	1	-	-	1	1	2	12	54	-
Black Male	-	-	-		-	-	-	•	-	•	-	-	-
Black Female			-		-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	1	1	-	-	-	-
Other Female	-	-	-	-	-	-	•	-	1	-	-	-	-

LEADING CAUSES OF DEATH

	To	otal	w	hite	Bia	ck	Children Ag	es 1-19
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	188	1,203.2	185	1,200.8	-	-	1	•
Diseases of the Heart	66	422.4	66	428.4	-	-	-	-
Malignant Neoplasms	42	268.8	42	272.6	-	•	•	-
Cerebrovascular Diseases	14	89.6	14	90.9	-	•	-	-
Accidents and Adverse Effects	15	96.0	12	77.9	-	-	-	-
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	12	76.8	12	77.9	-	-	-	-
Pneumonia and Influenza	5	•	5	•	-	-	-	-
Diabetes Mellitus	6	38.4	6	38.9	-	-	-	-
Chronic Liver Disease and Cirrhosis	2	*	2	•	-	-	-	-
Homicide	1	*	1	•	-	-	-	-
Suicide	1	*	1	*	-	-	-	-
Atherosclerosis	2	•	2	*	-	•	-	-
AIDS	1	*	1	*	•	-	•	-

Note: Rate is per 100,000 estimated population in 1992 in specified group.

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

Profile of Baraga County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1992:	7,828	Total Live Births:	99	Total Deaths:	109
Rank Among Counties:	81	Teenage Mothers:	13	Infant Deaths:	1
Per Square Mile:	8.7	Low Weight Births:	6	Neonatal Deaths:	-
		First Births:	42	Postneonatal Deaths:	1
				Perinatal Deaths:	-
				Fetal Deaths:	-
MARRIAGE		DIVORCE			
Marriages:	64	Divorces:	24		
Marriage Rate:	16.4	Divorce Rate:	6.1		



NATALITY BY RACE OF MOTHER

	To	otal	w	hite	ВІ	ack	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Live Births	99	12.6	81	11.9	-	-	18	18.5	
	To	xtal	w	hite	BI	ack	Oti	her	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio	
Teenage Mothers	13	131.3	8	98.8	-	•	5		
Low Weight	6	60.6	5	*	-	•	1	*	
Under 1,500 Grams	-	-	-	-	-	-	-	-	
< 38 Weeks Gestation	13	131.3	9	111.1	-	-	4	*	
Prenatal Care Began in									
1st Trimester	84	848.5	69	851.9	-	-	15	833.3	

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tot	al	Wh	ite	Bla	ck	Oth	er
	Number	Number Rate		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 1994 in specified group.

MORTALITY

Deaths	Total 109	All Race Male 55	Fen	nale i4	Total 101	White Male 50	Female 51	Total -	Black Male	Female -	Total 8	Other Male 5	Female 3
						A	ge 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	4	5	6	18	73	•
White Male	-	1	-	-	-	-	1	2	3	3	12	28	-
White Female	1	-	-	-	•	-	-	1	1	3	3	42	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	•	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	- "	-	-	•	-	-	1	-	2	2	-
Other Female	-	-	-	-	-	-	-	1	-	•	1	1	-

LEADING CAUSES OF DEATH

	T	otal	w	'hite	Bla	ck	Children Ag	es 1-19
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	109	1,392.4	101	1,484.6	•	-	1	*
Diseases of the Heart	44	562.1	41	602.7	-	-	•	•
Malignant Neoplasms	20	255.5	17	249.9	-	-	-	-
Cerebrovascular Diseases	8	102.2	8	117.6	-	•	-	-
Accidents and Adverse Effects	5	*	4	•	-	•	1	•
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	4	•	4	*	•	-	-	-
Pneumonia and Influenza	6	76.6	6	88.2	-	•	-	-
Diabetes Mellitus	6	76.6	6	88.2	-	-	•	-
Chronic Liver Disease and Cirrhosis	-	-	•	-	-	-	-	•
Homicide	1	•	1	•	•	-	•	•
Suicide	-	-	-	•	-	•	-	-
Atherosclerosis	-	-	-	•	•	-	-	•
AIDS	2	*	2	•	-	-	-	-

Profile of Barry County

					
POPULATION		NATALITY		MORTALITY	
As of April 1, 1992:	51.196	Total Live Births:	709	Total Deaths:	423
Rank Among Counties:	34	Teenage Mothers:	83	Infant Deaths:	5
Per Square Mile:	91.4	Low Weight Births:	33	Neonatal Deaths:	4
I el oquare ivine.	• • • • • • • • • • • • • • • • • • • •	First Births:	263	Postneonatal Deaths:	1
				Perinatal Deaths:	6
				Fetal Deaths:	2
MARRIAGE		DIVORCE			
Marriages:	434	Divorces:	237		
Marriage Rate:	17.0	Divorce Rate:	9.3		



NATALITY BY RACE OF MOTHER

	To	tal	w	hite	Bla	ack	Oth	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	709	13.8	703	13.9	1	•	4	-
	To	tal	w	hite	Bi	ack	Oth	er
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	83	117.1	83	118.1	-	-	-	-
Low Weight	33	46.5	33	46.9	-	•	-	•
Under 1,500 Grams	6	8.5	6	8.5	-	-	•	•
< 38 Weeks Gestation	94	132.6	93	132.3	•	-	1	•
Prenatal Care Began in 1st Trimester	602	849.1	596	847.8	1	•	4	•

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tof	al	Whi	ite	Bla	ck	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Infant Deaths	5	*	5	•	-	-	-	•	
Neonatal Deaths	4	*	4	•	-	-	•	•	
Postneonatal Deaths	1	•	1	*	-	-	-	-	
Perinatal Deaths	6	8.4	6	8.5	-	-	•	-	
Fetal Deaths	2	•	2	•	-	-	-	-	

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

Deaths	Total 423	All Race Male 234	Fe	nale 89	Total 422	White Male 234	Female 188	Total -	Black Male	Female	Total 1	Other Male -	Female 1
1						A	ge 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	4	6	6	7	17	38	73	266	-
White Male	3	-	-	-	1	4	5	7	11	24	44	135	-
White Female	2		-	1	3	2	1	-	6	14	28	131	-
Black Male	-		-	-	•	-	-	-	-	-	-	-	-
Black Female	-	•	-	-	-	•	-	-	-	-	-	-	-
Other Male	•	-	-	-	-	•	-	-	-	-	:	-	•
Other Female	-	-	-	-	•	-	-	-	•	-	1	•	-

LEADING CAUSES OF DEATH

	To	tal	W	nite	Bla	ck	Children Ag	es 1-19
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	423	826.2	422	832.2	•	•	5	•
Diseases of the Heart	130	253.9	130	256.4	-	-	-	-
Malignant Neoplasms	98	191.4	98	193.3	-	•	1	•
Cerebrovascular Diseases	35	68.4	35	69.0	-	•	-	•
Accidents and Adverse Effects	25	48.8	24	47.3	-	-	4	•
Chronic Obstructive Pulmonary Diseases	•							
and Allied Conditions	22	43.0	22	43.4	-	-	-	-
Pneumonia and Influenza	14	27.3	14	27.6	-	•	-	-
Diabetes Mellitus	15	29.3	15	29.6	-	-	•	-
Chronic Liver Disease and Cirrhosis	6	11.7	6	11.8	•	-	-	-
Homicide	•	-	-	-	-	-	•	-
Suicide	9	17.6	9	17.7	-	-	-	-
Atherosclerosis	2	•	2	•	-	-	•	-
AIDS	2	•	2	•	-	-	-	•
1								

Profile of Bay County

	MORTALITY	
1.413	Total Deaths:	1,035
165	Infant Deaths:	6
105	Neonatal Deaths:	3
579	Postneonatal Deaths:	3
	Perinatal Deaths:	12
	Fetal Deaths:	10
449		
8.0		
	165 105 579 449	1,413 Total Deaths: 165 Infant Deaths: 105 Neonatal Deaths: 579 Postneonatal Deaths: Perinatal Deaths: Fetal Deaths:



NATALITY BY RACE OF MOTHER

	To	xtal	w	hite	ВІ	ack	Ot	her
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	1,413	12.6	1,379	12.6	23	17.4	11	8.3
	Total		White		BI	ack	Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	165	116.8	159	115.3	5	*	1	*
Low Weight	105	74.3	100	72.5	5	*	-	-
Under 1,500 Grams	12	8.5	9	6.5	3	•	-	-
< 38 Weeks Gestation	228	161.4	220	159.5	4	*	4	•
Prenatal Care Began in								
1st Trimester	1,269	898.1	1240	899.2	18	782.6	11	1,000.0

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tot	al	Wh	ite	Bia	ck	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Infant Deaths	6	4.2	6	4.4	-	-	-	-	
Neonatal Deaths	3	•	3	•	-	-	-	-	
Postneonatal Deaths	3	•	3	•	-	-	-	-	
Perinatal Deaths	12	8.4	11	7.9	1	*	•	-	
Fetal Deaths	10	7.0	9	6.5	1	•	-	-	

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

		All Rac	es			White			Black			Other	
	Total	Male	Fer	nale	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	1,035	545	4	90	1,014	528	486	14	11	3	7	6	1
						A	ge in Years						
İ	<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	1	1	7	10	5	28	48	71	154	703	-
White Male	4	-	1	1	6	9	4	21	31	38	84	329	•
White Female	2	1	-	-	-	1	1	4	15	28	64	370	-
Black Male	-		-	-	1	-	-	2	1	3	3	1	-
Black Female		-	-	-	•	-	-	1	-	-	1	1	-
Other Male	-	-	_	-	-	-	-	-	1	2	2	1	-
Other Female	•	-	-	-	•	-	•	-	-	-	•	1	-

LEADING CAUSES OF DEATH

	To	tal	W	nite	В	ack	Children Ag	jes 1-19
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	1,035	923.0	1,014	926.2	14	1,057.4	10	32.8
Diseases of the Heart	356	317.5	351	320.6	2	*	1	*
Malignant Neoplasms	269	239.9	263	240.2	5	•	1	*
Cerebrovascular Diseases	58	51.7	57	52.1	-	-	•	-
Accidents and Adverse Effects	29	25.9	29	26.5	-	-	3	*
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	45	40.1	43	39.3	1	*	-	-
Pneumonia and Influenza	32	28.5	32	29.2	-	-	-	-
Diabetes Mellitus	38	33.9	38	34.7	-	-	-	-
Chronic Liver Disease and Cirrhosis	7	6.2	7	6.4	-	-	-	•
Homicide	2	•	1	•	1	•	-	-
Suicide	21	18.7	20	18.3	1	*	2	*
Atherosclerosis	32	28.5	32	29.2	-	-	-	-
AIDS	4	*	3	•	1	*	-	-

Profile of Benzie County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1992:	12,616	Total Live Births:	152	Total Deaths:	150
Rank Among Counties:	72	Teenage Mothers:	19	Infant Deaths:	1
Per Square Mile:	39.2	Low Weight Births:	10	Neonatal Deaths:	-
		First Births:	45	Postneonatal Deaths:	1
				Perinatal Deaths:	2
				Fetal Deaths:	2
MARRIAGE		DIVORCE			
Marriages:	128	Divorces:	79		
Marriage Rate:	20.3	Divorce Rate:	12.5		



NATALITY BY RACE OF MOTHER

	To	tal	W	hite	Bi	ack	Ott	ner
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	152	12.0	141	11.5	2	*	8	25.9
	To	tal	w	hite	Bi	ack	Oti	ner
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	19	125.0	16	113.5	1	•	2	*
Low Weight	10	65.8	8	56.7	1	*	1	•
Under 1,500 Grams	2	•	2	*	•	-	-	-
< 38 Weeks Gestation	22	144.7	20	141.8	1	•	1	•
Prenatal Care Began in 1st Trimester	116	763.2	112	794.3	1	•	3	•

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tot	ai	Whi	ite	Bla	ck	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Infant Deaths	1	*	1	•	-	-	-	-	
Neonatal Deaths	•	-	-	•	•	-	-	-	
Postneonatal Deaths	1	*	1	*	-	-	-	-	
Perinatal Deaths	2	*	2	*	-	-	-	-	
Fetal Deaths	2	•	2	•	-	-	-	-	

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

Deaths	Total 150	All Rac Male 77	Fer	nale 73	Total 143	White Male 73	Female 70	Total 2	Black Male 1	Female 1	Total 5	Other Male 3	Female 2
						Ag	ge 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	-	1	1	3	5	15	23	99	•
White Male	1	-	1	1	-	1	1	1	1	12	12	42	-
White Female		-	-			-	-	-	2	3	11	54	•
Black Male		-				-	•	1	-	-	-	-	•
Black Female		-		-	-	-	-	-	-	-	-	1	-
Other Male	-	-	-	-	-	-	-	1	1	-	-	1	-
Other Female	-	-	-	-	•	•	•	-	1	-	•	1	-

LEADING CAUSES OF DEATH

	т	otal	W	hite	Bla	ck	Children Ag	jes 1-19
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	150	1,189.0	143	1,165.4	2	*	2	•
Diseases of the Heart	61	483.5	58	472.7	-	•	-	-
Malignant Neoplasms	22	174.4	22	179.3	-	-	•	-
Cerebrovascular Diseases	15	118.9	15	122.2	-	•	-	•
Accidents and Adverse Effects	9	71.3	6	48.9	1	*	2	*
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	8	63.4	8	65.2	-	•	-	-
Pneumonia and Influenza	5	*	5	*	-	-	-	-
Diabetes Mellitus	5	*	5	•	-	-	-	-
Chronic Liver Disease and Cirrhosis	-	-	-	-	-	•	-	
Homicide	-	-	-	-	-	•	-	-
Suicide	3	*	3	•	-	-	-	-
Atherosclerosis	3	•	3	•	-	-	-	-
AIDS	1	•	1	*	-	-	•	-

Profile of Berrien County

POPULATION	· · · ·	NATALITY		MORTALITY	
As of April 1, 1992:	161,466	Total Live Births:	2,228	Total Deaths:	1,549
Rank Among Counties:	12	Teenage Mothers:	416	Infant Deaths:	16
Per Square Mile:	280.3	Low Weight Births:	197	Neonatal Deaths:	9
, c. equal o mino.		First Births:	902	Postneonatal Deaths:	7
				Perinatal Deaths:	18
				Fetal Deaths:	12
MARRIAGE		DIVORCE			
Marriages:	1.310	Divorces:	671		
Мапіаде Rate:	16.2	Divorce Rate:	8.3		



NATALITY BY RACE OF MOTHER

	To	tal	w	hite	BI	ack	Otl	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	2,228	13.8	1,584	11.8	611	24.1	26	11.0
	To	otal	w	hite	BI	ack	Oti	her
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	416	186.7	207	130.7	203	332.2	4	*
Low Weight	197	88.4	109	68.8	87	142.4	1	*
Under 1,500 Grams	23	10.3	16	10.1	7	11.5	•	-
< 38 Weeks Gestation	395	177.3	242	152.8	149	243.9	4	*
Prenatal Care Began in 1st Trimester	1,537	689.9	1,214	766.4	297	486.1	21	807.7

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tot	al	Wh	ite	Bla	ck	Oth	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate		
Infant Deaths	16	7.2	9	5.7	7	11.5	-	-		
Neonatal Deaths	9	4.0	7	4.4	2	•	•	-		
Postneonatal Deaths	7	3.1	2	•	5	•	-	-		
Perinatal Deaths	18	8.0	13	8.2	5	•	-	-		
Fetal Deaths	12	5.4	8	5.0	4	•	•	-		

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

		All Rac	es			White			Black			Other	
	Total	Male		nale	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	1,549	789	7	60	1,299	652	647	241	130	111	8	7	1
						A	ge 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	10	3	4	14	10	14	42	59	126	230	1,021	-
White Male	5	2	-	3	3	-	7	21	28	55	106	422	-
White Female	4	2	-	1	1	2	1	11	17	42	81	485	-
Black Male	3	3	2	-	7	4	5	7	10	15	20	54	-
Black Female	4	3	1	-	3	4	1	3	4	13	21	54	-
Other Male	-		-	_	-		-	-	-	1	2	4	-
Other Fernale	-	-	-	-	-	-	-	-	-	•	-	1	-

LEADING CAUSES OF DEATH

	To	tal	W	nite	Bla	ack	Children Ag	jes 1-19
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	1.549	959.3	1,299	971.6	241	948.9	31	68.1
Diseases of the Heart	488	302.2	418	312.7	67	263.8	1	•
Malignant Neoplasms	368	227.9	313	234.1	53	208.7	1	•
Cerebrovascular Diseases	111	68.7	99	74.0	11	43.3	1	•
Accidents and Adverse Effects	76	47.1	55	41.1	21	82.7	15	33.0
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	62	38.4	55	41.1	6	23.6	-	-
Pneumonia and Influenza	51	31.6	42	31.4	9	35.4	3	•
Diabetes Mellitus	51	31.6	44	32.9	6	23.6	-	-
Chronic Liver Disease and Cirrhosis	19	11.8	16	12.0	3	•	-	-
Homicide	20	12.4	1		19	74.8	6	13.2
Suicide	11	6.8	11	8.2	-	-	•	
Atherosclerosis	32	19.8	27	20.2	5	•		
AIDS	8	5.0	3	•	5	•	-	

Note: Rate is per 100,000 estimated population in 1992 in specified group.

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

POPULATION		NATALITY		MORTALITY	
As of April 1, 1992:	41.871	Total Live Births:	507	Total Deaths:	371
Rank Among Counties:	37	Teenage Mothers:	63	Infant Deaths:	5
Per Square Mile:	82.4	Low Weight Births:	23	Neonatal Deaths:	1
Per Square wine.	02.4	First Births:	187	Postneonatal Deaths:	4
		1 1101 1101		Perinatal Deaths:	5
i				Fetal Deaths:	4
MARRIAGE		DIVORCE			
Marriages:	332	Divorces:	237		
Marriage Rate:	15.9	Divorce Rate:	11.3		



NATALITY BY RACE OF MOTHER

	Total		w	hite	BI	ack	Other _		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Live Births	507	12.1	501	12.3	1	•	4	-	
	To	tal	w	hite	В	ack	Oth	ier	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio	
Teenage Mothers	63	124.3	62	123.8	-	-	1	*	
Low Weight	23	45.4	22	43.9	•	-	1	*	
Under 1,500 Grams	8	15.8	8	16.0	-	-	-	-	
< 38 Weeks Gestation	61	120.3	60	119.8	-	-	1	*	
Prenatal Care Began in									
1st Trimester	380	749.5	374	746.5	1	•	4	•	

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tot	al	Whi	ite	Bla	ck	Oth	er
	Number	Number Rate		Rate	Number	Rate	Number	Rate
Infant Deaths	5	•	5	•	-	-	-	-
Neonatal Deaths	1	*	1	•	-	-	-	-
Postneonatal Deaths	4	•	4	•	-	-	-	-
Perinatal Deaths	5	*	·5	•	-	-	-	-
Fetal Deaths	4	•	4	•	-	•	-	-

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

Deaths	Total 371	All Race Male 188	Fer	male 83	Total 366	White Male 184	Female 182	Total 2	Black Male 2	Female -	Total 3	Other Male 2	Female 1
i						A	ge in Years						
1	<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	4	2	12	15	30	68	231	-
White Male	4	_	3	-	-	2	2	6	13	19	38	97	-
White Female	1	-	_	-	1	2	-	6	2	11	26	133	•
Black Male		-	-		-	-	-	-	-	-	1	1	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	•	-
Other Male	-	-	-	-	•	-	•	-	-	-	2	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	1	•	-

LEADING CAUSES OF DEATH

	To	tal	Wi	nite	Bla	ck	Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	371	886.1	366	901.9	2	•	4	*
Diseases of the Heart	131	312.9	131	322.8	-	-	-	-
Malignant Neoplasms	80	191.1	77	189.7	1	•	-	-
Cerebrovascular Diseases	22	52.5	22	54.2	-	•	-	-
Accidents and Adverse Effects	18	43.0	18	44.4	•	•	2	•
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	20	47.8	20	49.3	-	-	-	-
Pneumonia and Influenza	14	33.4	14	34.5	-	-	-	-
Diabetes Mellitus	7	16.7	7	17.2	-	-	•	-
Chronic Liver Disease and Cirrhosis	5	*	5	•	-	-	-	-
Homicide	2	*	2	•	-	-	-	-
Suicide	9	21.5	9	22.2	-	-	-	-
Atherosclerosis	1	•	1	•	-	-	-	-
AIDS	2	*	2	•	-	-	-	-

Profile of Calhoun County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1992:	138,381	Total Live Births:	1.969	Total Deaths:	1,348
Rank Among Counties:	15	Teenage Mothers:	356	Infant Deaths:	14
Per Square Mile:	194.5	Low Weight Births:	149	Neonatal Deaths:	8
•		First Births:	832	Postneonatal Deaths:	6
				Perinatal Deaths:	13
				Fetal Deaths:	6
MARRIAGE		DIVORCE			
Marriages:	1,177	Divorces:	727		
Marriage Rate:	17.0	Divorce Rate:	10.5		



NATALITY BY RACE OF MOTHER

	To	rtal	W	hite	BI	ack	Other		
i	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Live Births	1,969	14.2	1,647	13.6	287	19.1	34	17.1	
	To	tal	w	hite	Bi	ack	Oth	ег	
1	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio	
Teenage Mothers	356	180.8	263	159.7	88	306.6	5	*	
Low Weight	149	75.7	108	65.6	38	132.4	3	•	
Under 1,500 Grams	22	11.2	16	9.7	6	20.9	-	-	
< 38 Weeks Gestation	350	177.8	269	163.3	73	254.4	8	235.3	
Prenatal Care Began in									
1st Trimester	1,491	757.2	1.295	786.3	169	588.9	27	794.1	

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tot	al	Wh	ite	Bla	ck	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Infant Deaths	14	7.1	11	6.7	2	*	1		
Neonatal Deaths	8	4.1	6	3.6	1	•	1	•	
Postneonatal Deaths	6	3.0	5	•	1	*	-		
Perinatal Deaths	13	6.6	10	6.1	3	*	-		
Fetal Deaths	6	3.0	4	•	2	•	-	-	

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

1		All Rac	es			White			Black			Other	
1	Total	Male	Fer	male	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	1,348	631	7	17	1,169	548	621	164	77	87	14	6	8
						A	ge 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	14	3	3	1	9	11	10	31	54	99	205	908	•
White Male	4	1	1	-	5	6	7	14	28	47	103	332	-
White Female	7	-	1	-	•	-	3	4	11	34	70	491	
Black Male	1	-	-	-	3	5	•	6	8	7	16	31	
Black Female	1	2	1	1	1	-	-	6	6	8	14	47	-
Other Male	1	-	-	-	-		-	-		2	1	2	-
Other Female	-	-	-	_		-	-	1	1	. 1	1	4	-

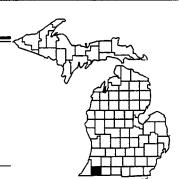
LEADING CAUSES OF DEATH

	To	tal	W!	nite	В	lack	Children Ag	jes 1-19
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	1,348	974.1	1,169	963.3	164	1,090.4	16	41.1
Diseases of the Heart	451	325.9	395	325.5	49	325.8	-	-
Malignant Neoplasms	324	234.1	281	231.6	39	259.3	1	*
Cerebrovascular Diseases	86	62.1	79	65.1	6	39.9	•	-
Accidents and Adverse Effects	58	41.9	49	40.4	8	53.2	7	18.0
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	64	46.2	61	50.3	2	*	-	-
Pneumonia and Influenza	61	44.1	54	44.5	6	39.9	-	
Diabetes Mellitus	41	29.6	25	20.6	16	106.4	-	-
Chronic Liver Disease and Cirrhosis	11	7.9	9	7.4	2	•	-	-
Homicide	11	7.9	3	*	8	53.2	4	*
Suicide	16	11.6	16	13.2	-	-	2	*
Atherosclerosis	18	13.0	17	14.0	1	•	•	
AIDS	6	4.3	5		1	*		

Note: Rate is per 100,000 estimated population in 1992 in specified group.

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

POPULATION		NATALITY		MORTALITY	
As of April 1, 1992:	49,112	Total Live Births:	554	Total Deaths:	446
Rank Among Counties:	35	Teenage Mothers:	114	Infant Deaths:	8
Per Square Mile:	99.0	Low Weight Births:	37	Neonatal Deaths:	5
		First Births:	231	Postneonatal Deaths:	3
				Perinatal Deaths:	7
				Fetal Deaths:	5
MARRIAGE		DIVORCE			
Marriages:	395	Divorces:	233		
Marriage Rate:	16.1	Divorce Rate:	9.5		



NATALITY BY RACE OF MOTHER

	Te	otal	w	hite	RI	ack	Oti	ner .
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	554	11.3	499	11.2	51	14.0	4	•
	To	xtal	w	hite	ВІ	ack	Oti	ner
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	114	205.8	104	208.4	9	176.5	1	•
Low Weight	37	66.8	31	62.1	6	117.6	•	-
Under 1,500 Grams	10	18.1	7	14.0	3	•	-	-
< 38 Weeks Gestation	83	149.8	70	140.3	12	235.3	1	*
Prenatal Care Began in								
1st Trimester	421	759.9	386	773.5	34	666.7	1	*

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tot	al	Whi	te	Bla	ck	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Infant Deaths	8	14.4	6	12.0	2	•	•	-	
Neonatal Deaths	5	*	4	•	1	•	•		
Postneonatal Deaths	3	*	2	*	1	*	•		
Perinatal Deaths	7	12.5	4	*	2	*	1	•	
Fetal Deaths	5	•	3	*	1	. •	1	•	

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

Deaths	Total 446	Ali Rad Male 222	Fer	nale 24	Total 387	White Male 192	Female 195	Total 49	Black Male 24	Female 25	Total 10	Other Male 6	Female 4
						A	ge in Years						
ļ	<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	-	-	4	7	1	-	10	10	35	76	295	•
White Male	6	-	-	1	5	1	-	4	3	20	39	113	-
White Female	-	-	-	3	1	-	•	3	5	14	27	142	-
Black Male	1	-	-	-	1	-	-	1	1	1	4	15	•
Black Female	1	-	-	-	-	-	-	1	1	-	3	19	-
Other Male	-	-	-	-	-	-	-	-	-	-	2	4	-
Other Female	-	-	-	-	-	-	-	1	-	•	1	2	•

LEADING CAUSES OF DEATH

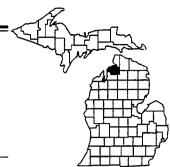
	To	tal	W	nite	В	ack	Children Ag	es 1-19
-	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	446	908.1	387	865.1	49	1,345.4	11	78.9
Diseases of the Heart	139	283.0	119	266.0	15	411.9	-	-
Malignant Neoplasms	113	230.1	93	207.9	16	439.3	1	•
Cerebrovascular Diseases	36	73.3	31	69.3	5	•	-	-
Accidents and Adverse Effects	23	46.8	21	46.9	2		6	43.0
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	25	50.9	25	55.9	-	-	-	•
Pneumonia and Influenza	20	40.7	17	38.0	3	•	•	-
Diabetes Mellitus	11	22.4	10	22.4	1	*	-	-
Chronic Liver Disease and Cirrhosis	3	•	2	•	-	-	-	-
Homicide	2	*	1	•	1	*	1	*
Suicide	7	14.3	7	15.6	-	-	2	*
Atherosclerosis	3	•	2	•	1	•	•	-
AIDS	1	*	-	-	1	•	-	-

Note: Rate is per 100,000 estimated population in 1992 in specified group.

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

Profile of Charlevoix County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1992:	22,225	Total Live Births:	321	Total Deaths:	206
Rank Among Counties:	56	Teenage Mothers:	41	Infant Deaths:	1
Per Square Mile:	52.8	Low Weight Births:	14	Neonatal Deaths:	1
'		First Births:	153	Postneonatal Deaths:	-
				Perinatal Deaths:	2
				Fetal Deaths:	1
MARRIAGE		DIVORCE			
Marriages:	209	Divorces:	117		
Marriage Rate:	18.8	Divorce Rate:	10.5		



NATALITY BY RACE OF MOTHER

	Total		w	hite	ВІ	ack	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Live Births	321	14.4	309	14.2	-	•	12	26.7	
	To	otal	w	hite	BI	ack	Oti	ner	
į	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio	
Teenage Mothers	41	127.7	39	126.2	-	-	2	*	
Low Weight	14	43.6	14	45.3	•	-	-	-	
Under 1,500 Grams	2	•	2	*	-	-	•	-	
< 38 Weeks Gestation	34	105.9	33	106.8	•	-	1	*	
Prenatal Care Began in									
1st Trimester	256	797.5	248	802.6	-	-	8	666.7	

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tot	ai	Wh	ite	Bla	ck	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 1994 in specified group.

MORTALITY

		All Race	:S			White			Black			Other	
	Total	Male	Fer	nale	Total	Male	Female	Totai	Maie	Female	Total	Male	Female
Deaths	206	120	8	86	204	119	85	-	•	•	2	1	1
						A	ge 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	5	1	6	10	17	24	137	-
White Male	1	-	-	1	1	5	-	4	10	15	15	67	-
White Female	-	-	- "	1	2	-	1	1	-	2	9	69	-
Black Male	-	-	-		-	-	-	-	-	_	-	•	-
Black Female	-		-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	•	•	-	-	1	-	-	-	-	-
Other Female	•	-	-	-	-	-	-	-	•	-	-	1	•

LEADING CAUSES OF DEATH

To	Total		nite	Bla	ck	Children Ages 1-19	
Number	Rate	Number	Rate	Number	Rate	Number	Rate
206	926.9	204	937.7	-	•	5	*
78	351.0	78	358.5	-	-	-	•
48	216.0	47	216.0	•	-	1	*
14	63.0	14	64.4	•	-	-	-
10	45.0	9	41.4	-	-	2	
7	31.5	7	32.2	-	-	-	•
4	*	4	*	•		-	-
3	•	3		•	•	-	
3	*	3	•	-		-	-
2	*	2	•	•	-	-	-
2	*	2	*	•		-	-
1	*	1	•	•	-	-	-
1	•	1	*	-	-	1	*
	Number 206 78 48 14	Number Rate 206 926.9 78 351.0 48 216.0 14 63.0 10 45.0	Number Rate Number 206 926.9 204 78 351.0 78 48 216.0 47 14 63.0 14 10 45.0 9	Number Rate Number Rate 206 926.9 204 937.7 78 351.0 78 358.5 48 216.0 47 216.0 14 63.0 14 64.4 10 45.0 9 41.4	Number Rate Number Rate Number 206 926.9 204 937.7 - 78 351.0 78 358.5 - 48 216.0 47 216.0 - 14 63.0 14 64.4 - 10 45.0 9 41.4 -	Number Rate Number Rate Number Rate 206 926.9 204 937.7 - - 78 351.0 78 358.5 - - 48 216.0 47 216.0 - - 14 63.0 14 64.4 - - 10 45.0 9 41.4 - -	Number Rate Number Rate Number Rate Number Rate Number 206 926.9 204 937.7 - - 5 78 351.0 78 358.5 - - - 48 216.0 47 216.0 - - 1 14 63.0 14 64.4 - - - 10 45.0 9 41.4 - - 2

Note: Rate is per 100,000 estimated population in 1992 in specified group. Source: Office of the State Registrar and Division of Health Statistics, MDPH

Profile of Cheboygan County

POPULATION As of April 1, 1992: Rank Among Counties: Per Square Mile:	21,780 58 30.2	NATALITY Total Live Births: Teenage Mothers: Low Weight Births: First Births:	254 33 18 110	MORTALITY Total Deaths: Infant Deaths: Neonatal Deaths: Postneonatal Deaths: Perinatal Deaths:	260 3 3 -
				Fetal Deaths:	1
MARRIAGE		DIVORCE			
Marriages:	222	Divorces:	86		
Marriage Rate:	20.4	Divorce Rate:	7.9		



NATALITY BY RACE OF MOTHER

1									
	To	tal	W	hite	BI	ack	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Live Births	254	11.7	243	11.5	2	•	9	14.9	
	To	tal	w	hite	Bi	ack	Ot	her	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio	
Teenage Mothers	33	129.9	30	123.5	-	-	3	*	
Low Weight	18	70.9	15	61.7	1	*	2	•	
Under 1,500 Grams	3	*	3	*	-	-	-	-	
< 38 Weeks Gestation	40	157.5	37	152.3	1	*	2	*	
Prenatal Care Began in							_		
1st Trimester	214	842.5	205	843.6	•	-	9	1,000.0	

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tot	al	Wh	ite	Bla	ck	Other		
1	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Infant Deaths	3	*	3	•	•	-	-	-	
Neonatal Deaths	3	*	3	•	-	-	-	•	
Postneonatal Deaths	-	-	-	-	-	-	-	-	
Perinatal Deaths	3	*	3	*	-	-	•	•	
Fetal Deaths	1	*	1	•	-	-	•	-	

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

Deaths	Total 260	All Rac Male 129	Fer	nale 31	Total 254	White Male 125	Female 129	Total -	Black Male	Female -	Total 5	Other Male 3	Female 2
						A	ge 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	1	3	1	4	9	18	45	175	- 1
White Male	1		-	-	1	2	1	2	4	9	17	88	-
White Female	ż	-	_	4	-	-	-	2	3	9	26	86	-
Black Male	-	-	_	-	-	-	-	-	-	-	-	-	-
Black Female	_	-	-		-	-	-	-	-	-	•	-	-
Other Male	-	-	-	-	-	-	-	•	1	-	1	1	-
Other Female	-	-	-	-	•	•	-	•	1	•	1	-	-

LEADING CAUSES OF DEATH

	T	otal	w	hite	Bla	ck	Children Ages 1-1	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	260	1,193.8	254	1,200.5	•	-	2	•
Diseases of the Heart	90	413.2	88	415.9	-	-	-	•
Malignant Neoplasms	73	335.2	71	335.6	-	-	-	•
Cerebrovascular Diseases	18	82.6	18	85.1	-	-	•	-
Accidents and Adverse Effects	8	36.7	7	33.1	-	-	•	-
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	11	50.5	11	52.0	-	-	-	-
Pneumonia and Influenza	8	36.7	8	37.8	-	-	-	-
Diabetes Mellitus	3	•	3	•	•	•	-	•
Chronic Liver Disease and Cirrhosis	3	•	3	•	-	•	-	•
Homicide	-	-	-	-	-	•	-	•
Suicide	4	*	4	•	-	•	1	*
Atherosclerosis	2	•	2	•	-	•	•	-
AIDS	1	*	1	•	-	•	-	-

DODUI ATION		NATALITY		MORTALITY	
POPULATION	35.640	Total Live Births:	420	Total Deaths:	285
As of April 1, 1992:					205
Rank Among Counties:	44	Teenage Mothers:	51	Infant Deaths:	4
Per Square Mile:	22.4	Low Weight Births:	22	Neonatal Deaths:	4
		First Births:	162	Postneonatal Deaths:	-
				Perinatal Deaths:	6
·				Fetal Deaths:	2
MARRIAGE		DIVORCE			
Marriages:	293	Divorces:	121		
Маггіаде Rate:	16.4	Divorce Rate:	6.8		



	Total		w	hite	ВІ	ack	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Live Births	420	11.8	323	11.2	4	*	89	20.6	
ļ	To	otai	w	hite	BI	ack	Oti	ner	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio	
Teenage Mothers	51	121.4	31	96.0	1	*	19	213.5	
Low Weight	22	52.4	21	65.0	1	*	•	-	
Under 1,500 Grams	6	14.3	5	*	1	•	•	-	
< 38 Weeks Gestation	54	128.6	42	130.0	1	•	11	123.6	
Prenatal Care Began in									
1st Trimester	332	790.5	261	808.0	3	*	67	752.8	

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tot	al	Whi	ite	Bla	ck	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Infant Deaths	4	*	3	•	-	-	1	*	
Neonatal Deaths	4	•	3	•	-	-	1	•	
Postneonatal Deaths	•	•	•	-	-	-	-	-	
Perinatal Deaths	6	14.2	4	*		-	2	•	
Fetal Deaths	2	•	1	•	-	-	1	•	

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

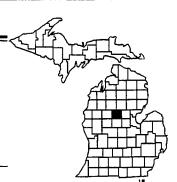
MORTALITY

		All Rac	es			White			Black			Other	
l i	Total	Male	Fer	nale	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	285	142	1	43	268	132	136	•	-	-	17	10	7
						A	ge 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	1	6	5	17	44	204	•
White Male	-	-	-	-	2	-	-	2	1	11	26	90	-
White Female	3	1	-	-	-	1	-	4	4	6	14	103	•
Black Male	-	-	-	-	•	-	-	-	-	-	-	-	•
Black Female		-	-	-	-	-	-	-	-	-	-	-	-
Other Male		-	-	-	-	-	1	-	-	-	3	6	•
Other Female	1	-	-	-	•	-	-	-	-	•	1	5	-

LEADING CAUSES OF DEATH

	То	tal	W	nite	Bla	ck	Children Ag	es 1-19
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	285	799.7	268	932.7	-	-	3	•
Diseases of the Heart	100	280.6	91	316.7	-	-	•	•
Malignant Neoplasms	60	168.3	56	194.9	-	-	1	•
Cerebrovascular Diseases	24	67.3	23	80.0	-	-	-	•
Accidents and Adverse Effects	9	25.3	9	31.3	-	-	1	•
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	16	44.9	16	55.7	-	-	-	•
Pneumonia and Influenza	8	22.4	8	27.8	-	-	-	-
Diabetes Mellitus	15	42.1	14	48.7	-	-	-	-
Chronic Liver Disease and Cirrhosis	5	*	5	*	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	2	*	2		-	-	-	•
Atherosclerosis	2	*	2	•	•	•	-	-
AIDS	•	-	•	-	-	-	-	-

POPULATION		NATALITY		MORTALITY	
As of April 1, 1992:	26,384	Total Live Births:	369	Total Deaths:	350
Rank Among Counties:	51	Teenage Mothers:	61	Infant Deaths:	3
Per Square Mile:	46.3	Low Weight Births:	39	Neonatal Deaths:	3
		First Births:	137	Postneonatal Deaths:	-
				Perinatal Deaths:	6
				Fetal Deaths:	3
MARRIAGE		DIVORCE			
Marriages:	242	Divorces:	149		
Marriage Rate:	18.3	Divorce Rate:	11.3		



1								
1	To	tal	W	hite	BI	ack	Oth	ner
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	369	14.0	360	13.8	1	*	8	32.8
	To	tal	w	hite	ВІ	ack	Oti	ner
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	61	165.3	57	158.3	-	-	4	•
Low Weight	39	105.7	37	102.8	-	-	2	*
Under 1.500 Grams	8	21.7	6	16.7	-	-	2	•
< 38 Weeks Gestation	71	192.4	67	186.1	-	•	4	*
Prenatal Care Began in								
1st Trimester	297	804.9	289	802.8	1	•	7	875.0

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tot	al	Whi	ite	Bla	ck	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Infant Deaths	3	*	3	•	•	-	-	-	
Neonatal Deaths	3	*	3	•	•	-	-	•	
Postneonatal Deaths	-	-	-	-	•	-	-	-	
Perinatal Deaths	6	16.1	6	16.5	•	-	•	-	
Fetal Deaths	3	•	3	•	-	-	-	-	

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

		Ail Rac				White			Black			Other	
	Total	Male		nale	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	350	189	1	61	348	188	160	-	-	-	2	1	1
						A	ge 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	1	1	2	2	-	6	8	36	65	225	-
White Male	1	-	1	-	2	2	-	4	7	21	37	113	-
White Female	2	1	-	1	-	•	-	2	1	14	27	112	-
Black Male		•	-	-	-	•	-	-	-	-	-	-	-
Black Female		-	-	. -	•	-	-	-	-	-	-	-	-
Other Male	•	-	-	-	-	-	-	-	-	-	1	-	- 1
Other Female	-	-	-	-	•	-	-	-	-	1	-	-	-

LEADING CAUSES OF DEATH

Number - - -	Rate -	Number 5	Rate
•	-	5	*
-	-	-	
-			-
	-	-	•
•	-	-	•
-	•	3	•
-	•	•	-
•	-	-	-
•	-	-	-
•	-	-	-
•	-	1	•
-	•	•	-
•		-	-
-	-	-	-
	-		3

POPULATION		NATALITY		MORTALITY	
As of April 1, 1992:	59,397	Total Live Births:	809	Total Deaths:	391
Rank Among Counties:	28	Teenage Mothers:	69	Infant Deaths:	4
Per Square Mile:	103.6	Low Weight Births:	42	Neonatal Deaths:	1
! '		First Births:	328	Postneonatal Deaths:	3
				Perinatal Deaths:	5
				Fetal Deaths:	4
MARRIAGE		DIVORCE			
Marriages:	425	Divorces:	276		
Marriage Rate:	14.3	Divorce Rate:	9.3		



	Total		100	'hite	DI.	ack	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
l					MUINDE	Nate			
Live Births	809	13.6	798	13.6	-	-	8	14.9	
	To	otal	w	hite	BI	ack	Ot	ner	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio	
Teenage Mothers	69	85.3	68	85.2	•	-	1	•	
Low Weight	42	51.9	42	52.6	-	-	•	-	
Under 1,500 Grams	7	8.7	7	8.8	•	-	-	-	
< 38 Weeks Gestation	110	136.0	108	135.3	•	•	2	•	
Prenatal Care Began in									
1st Trimester	694	857.8	686	859.6	-	-	6	750.0	

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tot	al	Wh	ite	Bia	ck	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Infant Deaths	4	*	4	*	-	-	•	•	
Neonatal Deaths	1	•	1	*	-	-	•	-	
Postneonatal Deaths	3	•	3	•	•	-	-	-	
Perinatal Deaths	5	•	5	•	•	-	-	•	
Fetal Deaths	4	•	4	•	-	-	•	•	

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

Deaths	Total 391	All Race Male 184	Fe	male 07	Total 389	White Male 183	Female 206	Total -	Black Male	Female -	Total 2	Other Male 1	Female 1
						A	ge 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	12	14	25	64	266	-
White Male	2	-	-	1		2	1	8	8	11	29	121	-
White Female	2	-	1	1	-		-	4	6	14	34	144	-
Black Male	-	-	-	-	-	-	-	-	•	-	-	-	•
Black Female		-	-	-	-		-	-	-	-	-	-	•
Other Male	-	-	-	•	-	-	-	-	-	-	1	•	•
Other Female	-	-	-	-	-	-	-	-	-	•	-	1	-

LEADING CAUSES OF DEATH

	To	tal	W	nite	Bla	ck	Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	391	658.3	389	663.6	-	-	3	•
Diseases of the Heart	134	225.6	133	226.9	-	-	•	•
Malignant Neoplasms	92	154.9	91	155.2	•	-	•	•
Cerebrovascular Diseases	28	47.1	28	47.8	-	-	•	-
Accidents and Adverse Effects	6	10.1	6	10.2	•	•	1	*
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	29	48.8	29	49.5	•	-	-	•
Pneumonia and Influenza	19	32.0	19	32.4	•	-	1	•
Diabetes Mellitus	6	10.1	6	10.2	-	-	-	-
Chronic Liver Disease and Cirrhosis	5	*	5	*	-	•	-	•
Homicide	3	•	3	•	-	-	-	•
Suicide	7	11.8	7	11.9	-		-	-
Atherosclerosis	5	*	5	*	-	-	-	-
AIDS	1	•	1	•	•	-	•	-

Profile of Crawford County

POPULATION		NATALITY		MORTALITY	-
As of April 1, 1992:	12.972	Total Live Births:	161	Total Deaths:	120
Rank Among Counties:	70	Teenage Mothers:	30	Infant Deaths:	1
Per Square Mile:	23.2	Low Weight Births:	16	Neonatal Deaths:	1
1 51 545575 1111151		First Births:	71	Postneonatal Deaths:	-
				Perinatal Deaths:	9
l		**		Fetal Deaths:	8
MARRIAGE		DIVORCE			
Мапіадев:	104	Divorces:	65		
Маптаде Rate:	16.0	Divorce Rate:	10.0		



NATALITY BY RACE OF MOTHER

	To	Total	White Black _			ack	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Live Births	161	12.4	158	12.7	1	•	2	*	
	To	otai	w	hite	BI	ack	Oth	ier	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio	
Teenage Mothers	30	186.3	29	183.5	1	•	•	-	
Low Weight	16	99.4	16	101.3	-	-	-	-	
Under 1,500 Grams	3		3	•	-	•	•	-	
< 38 Weeks Gestation	28	173.9	28	177.2	-	•	-	-	
Prenatal Care Began in									
1st Trimester	125	776.4	122	772.2	1	*	2	•	

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tot	ai	Whi	White		ck	Oth	ег
1	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	1	*	1	*	-	-	-	•
Neonatal Deaths	1	•	1	•	-	-	-	•
Postneonatal Deaths	-	•	•	-	•	-	•	-
Perinatal Deaths	9	53.3	9	54.2	-	-	-	-
Fetal Deaths	8	47.3	8	48.2	-	-	-	•

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

Deaths	Total 120	All Race Male 62	Fer	nale 8	Total 116	White Male 59	Female 57	Total -	Black Male -	Female -	Total 4	Other Male 3	Female 1
						A	ge 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	1	-	2	1	3	13	26	71	-
White Male	1	-			1		-	1	1	8	16	31	-
White Female	· ·	1	_	1	-		1	-	2	4	10	38	-
Black Male		-	-		-	-	-	-		-	-	-	•
Black Female		-	-	-	-	-	-	-	-	-	-	-	-
Other Male		-	_	-	-	-	1	-	-	1	-	1	-
Other Female	-	-	•	-	-	-	-	•	•	-	-	1	-

LEADING CAUSES OF DEATH

	To	tal	Wi	iite	Bla	ck	Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	120	925.1	116	932.5	-	-	3	•
Diseases of the Heart	35	269.8	35	281.4	-	-	-	•
Malignant Neoplasms	35	269.8	33	265.3	-	-	•	•
Cerebrovascular Diseases	9	69.4	8	64.3	-	-	-	-
Accidents and Adverse Effects	4	•	4	*	-	-	-	•
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	6	46.3	6	48.2	-	-	-	•
Pneumonia and Influenza	4	*	4	•	-	-	1	*
Diabetes Mellitus	3	*	3	•	-	-	-	•
Chronic Liver Disease and Cirrhosis		-	•	-	-	•	-	•
Homicide	-	-	-	-	-	-	-	•
Suicide	4		3	•	-	-	1	•
Atherosclerosis	2	•	2	•	-	-	•	-
AIDS	-	-	•	•	•	-	•	-

Profile of Delta County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1992:	38,208	Total Live Births:	429	Total Deaths:	377
Rank Among Counties:	42	Teenage Mothers:	57	Infant Deaths:	9
Per Square Mile:	32.6	Low Weight Births:	20	Neonatal Deaths:	7
•		First Births:	180	Postneonatal Deaths:	2
				Perinatal Deaths:	7
				Fetal Deaths:	1
MARRIAGE		DIVORCE			
Marriages:	347	Divorces:	176		
Marriage Rate:	18.2	Divorce Rate:	9.2		



NATALITY BY RACE OF MOTHER

	To	otal	w	hite	BI	ack	Ott	ner
1	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	429	11.2	413	11.1	1	•	15	14.7
	To	xtai	w	hite	ВІ	ack	Oti	ner
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	57	132.9	55	133.2	•	-	2	*
Low Weight	20	46.6	20	48.4	•	-	-	-
Under 1,500 Grams	8	18.6	8	19.4	-	-	-	-
< 38 Weeks Gestation	49	114.2	46	111.4	-	-	3	•
Prenatal Care Began in								
1st Trimester	272	634.0	261	632.0	-	-	11	733.3

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tot	ai	Wh	ite	Bla	ck	Oth	er
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	_ 9	21.0	9	21.8	-	-	-	-
Neonatal Deaths	7	16.3	7	16.9	-	-	-	-
Postneonatal Deaths	2	•	2	*	-	-	-	-
Perinatal Deaths	7	16.3	7	16.9	-	-	•	•
Fetal Deaths	1	•	1	*	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

Deaths	Total 377	All Rac Maie 173	Fer	nale 04	Total 371	White Male 170	Female 201	Total 1	Black Male	Female 1	Total 5	Other Male 3	Female 2
						A	ge 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	-	1	1	3	4	9	27	61	260	-
White Male	4	-	2	-	1	-	2	1	3	15	38	104	-
White Female	5		-	-	-	1	1	3	5	12	21	153	•
Black Male		-	-	-	-	-	-	-	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	1	-
Other Male		-	-		-	-	-	-	-	•	2	1	-
Other Female	-	-	•	-	-	-	-	-	1	•	-	1	-

LEADING CAUSES OF DEATH

To	tai	WI	nite	Bia	ck	Children Ag	es 1-19
Number	Rate	Number	Rate	Number	Rate	Number	Rate
377	986.7	371	998.1	1	*	3	•
133	348.1	129	347.0	-	•	•	-
95	248.6	94	252.9	1	•	-	•
24	62.8	24	64.6	-	•	-	•
17	44.5	16	43.0	-	-	3	•
11	28.8	11	29.6	-	-	-	-
9	23.6	9	24.2	-	-	-	-
14	36.6	14	37.7	-	-	-	-
3		3	•	-	-	-	-
2	*	2	•	-	•	-	-
5	*	5	•	•	•	-	-
5	•	5	•	-	•	-	•
-	•	-	•	-	-	-	-
	Number 377 133 95 24 17	377 986.7 133 348.1 95 248.6 24 62.8 17 44.5 11 28.8 9 23.6	Number Rate Number 377 986.7 371 133 348.1 129 95 248.6 94 24 62.8 24 17 44.5 16 11 28.8 11 9 23.6 9 14 36.6 14 3 * 3 2 * 2 5 * 5	Number Rate Number Rate 377 986.7 371 998.1 133 348.1 129 347.0 95 248.6 94 252.9 24 62.8 24 64.6 17 44.5 16 43.0 11 28.8 11 29.6 9 23.6 9 24.2 14 36.6 14 37.7 3 * 3 3 2 * 2 * 5 * 5 *	Number Rate Number Rate Number 377 986.7 371 998.1 1 133 348.1 129 347.0 - 95 248.6 94 252.9 1 24 62.8 24 64.6 - 17 44.5 16 43.0 - 11 28.8 11 29.6 - 9 23.6 9 24.2 - 14 36.6 14 37.7 - 3 * 3 * - 5 * 5 * -	Number Rate Number Rate Number Rate Number Rate 377 986.7 371 998.1 1 * 133 348.1 129 347.0 - - 95 248.6 94 252.9 1 * 24 62.8 24 64.6 - - 17 44.5 16 43.0 - - 11 28.8 11 29.6 - - 9 23.6 9 24.2 - - 14 36.6 14 37.7 - - 3 * 3 * - - 5 * 5 * - -	Number Rate Number Rate Number Rate Number Rate Number 377 986.7 371 998.1 1 * 3 133 348.1 129 347.0 - - - 95 248.6 94 252.9 1 * - 24 62.8 24 64.6 - - - - 17 44.5 16 43.0 - - 3 3 11 28.8 11 29.6 - - - - - 9 23.6 9 24.2 - - - - 14 36.6 14 37.7 - - - - 3 * 3 * - - - - 14 36.6 14 37.7 - - - - 2 * 2

Profile of Dickinson County

	NATALITY		MORTALITY	
27.014	Total Live Births:	308	Total Deaths:	292
	Teenage Mothers:	32	Infant Deaths:	1
		17	Neonatal Deaths:	-
00.1	- •	128	Postneonatal Deaths:	1
	1 1101 211 11101		Perinatal Deaths:	-
			Fetal Deaths:	-
	DIVORCE			
215		127		
15.9	Divorce Rate:	9.4		
	27,014 49 35.1 215 15.9	27,014 Total Live Births: 49 Teenage Mothers: 35.1 Low Weight Births: First Births: DIVORCE 215 Divorces:	27,014 Total Live Births: 308 49 Teenage Mothers: 32 35.1 Low Weight Births: 17 First Births: 128 DIVORCE 215 Divorces: 127	27,014 Total Live Births: 308 Total Deaths: 49 Teenage Mothers: 32 Infant Deaths: 35.1 Low Weight Births: 17 Neonatal Deaths: First Births: 128 Postneonatal Deaths: Perinatal Deaths: Perinatal Deaths: Fetal Deaths: Fetal Deaths:



NATALITY BY RACE OF MOTHER

ł	To	xal	w	hite	Bl	ack	Ott	ner
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	308	11.4	302	11.3	-	-	6	20.4
	To	xtal	w	hite	ВІ	ack	Oti	ner
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	32	103.9	31	102.6	-	•	1	*
Low Weight	17	55.2	17	56.3	-	•	-	-
Under 1,500 Grams	1	*	1	•	•	•	•	-
< 38 Weeks Gestation	47	152.6	45	149.0	-	•	2	*
Prenatal Care Began in							_	
1st Trimester	276	896.1	271	897.4	-	-	5	-

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		Wh	ite	Bla	ck	Oth	er
1	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 1994 in specified group.

MORTALITY

Deaths	Total 292	Ali Rac Male 150	e Fer	nale 42	Total 292	White Male 150	Female 142	Total -	Biack Male	Female -	Total -	Other Male	Female
						A	ge 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	10	20	30	224	-
White Male		- 1	_		1		-	2	5	15	16	110	-
White Female	1	•	_		i		-	1	5	5	14	114	-
Black Male		'		-		_	-			-	-	-	-
Black Female		_	_		_		-	_	-	-	-	-	-
Other Male			_	_	-	_		-	-	-	-	-	-
Other Female	-	-	-	•	-	•	-	-	-	-	-	•	-

LEADING CAUSES OF DEATH

								OL 11-1 4	4 40
İ		T-	otal	W	hite	Bla		Children Ag	
		Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes		292	1,080.9	292	1,094.0	-	-	4	*
Diseases of the	Heart	90	333.2	90	337.2	-	-	•	-
Malignant Neople		73	270.2	73	273.5	-	-	1	•
Cerebrovascular	Diseases	27	99.9	27	101.2	-	-	-	-
Accidents and A		12	44.4	12	45.0	-	-	3	•
Chronic Obstruc	tive Pulmonary Diseases								
and Allied Cond		15	55.5	15	56.2	-	-	-	-
Pneumonia and	Influenza	11	40.7	11	41.2	•	-	-	-
Diabetes Mellitus		7	25.9	7	26.2	-	-	•	-
	sease and Cirrhosis	-	-	-	-	-	•	•	•
Homicide		-	-	-	-	-	-	-	-
Suicide		6	22.2	6	22.5	-	-	•	-
Atherosclerosis		6	22.2	6	22.5	•	•	-	•
AIDS		-	•	-	-	-	•	-	-
l i									

	NATALITY		MORTALITY	
95,253	Total Live Births:	1,159	Total Deaths:	696
19	Teenage Mothers:	120	Infant Deaths:	7
164.4		64	Neonatal Deaths:	3
	First Births:	471	Postneonatal Deaths:	4
			Perinatal Deaths:	6
			Fetal Deaths:	3
	DIVORCE			
746	Divorces:	761		
15.7	Divorce Rate:	16.0		
	19 164.4 746	95,253 Total Live Births: 19 Teenage Mothers: Low Weight Births: First Births: DIVORCE 746 Divorces:	95,253 Total Live Births: 1,159 19 Teenage Mothers: 120 164.4 Low Weight Births: 64 First Births: 471 DIVORCE 746 Divorces: 761	95,253 Total Live Births: 1,159 Total Deaths: 19 Teenage Mothers: 120 Infant Deaths: 164.4 Low Weight Births: 64 Neonatal Deaths: First Births: 471 Postneonatal Deaths: Perinatal Deaths: Perinatal Deaths: Fetal Deaths:



	To	Total		White		ack	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Live Births	1,159	12.2	1,100	12.2	45	12.2	11	10.0	
	Total		White		ВІ	ack	Other		
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio	
Teenage Mothers	120	103.5	113	102.7	5	•	1	*	
Low Weight	64	55.2	58	52.7	6	133.3	-	-	
Under 1,500 Grams	12	10.4	11	10.0	1	•	-	-	
< 38 Weeks Gestation	185	159.6	172	156.4	11	244.4	2	*	
Prenatal Care Began in 1st Trimester	979	844.7	935	850.0	34	755.6	9	818.2	

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Bla	ck	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Infant Deaths	7	6.0	6	5.5	1	*	-	•	
Neonatal Deaths	3	•	2	*	1	*	-	-	
Postneonatal Deaths	4	•	4	*	-	-	-	-	
Perinatal Deaths	6	5.2	5	•	1	*	•	-	
Fetal Deaths	3	*	3	•	-	-	-	-	

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

Deaths	Total 696	All Rad Male 342	e Fer	nale 54	Total 683	White Male 337	Female 346	Total 11	Black Male 4	Female 7	Total 1	Other Male -	Female 1
						A	ge 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	2	5	2	4	17	28	57	94	476	-
White Male	2	1	-	2	3	1	2	12	18	30	53	213	-
White Female	4	1	2	_	2	1	1	5	8	26	38	258	-
Black Male	1	·	-	-	-	-	-	-	2	-	1	-	-
Black Female		_	-	-	_		1		-	-	1	5	-
Other Male		-	-		-	-		-	-	-	-		-
Other Female	-	-	-	-	-	-	-	-	•	-	1	-	-

LEADING CAUSES OF DEATH

	To	ıtal	Wi	nite	Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	696	730.7	683	754.9	11	299.4	11	39.8
Diseases of the Heart	232	243.6	228	252.0	3	•	-	-
Malignant Neoplasms	151	158.5	150	165.8	1	•	1	*
Cerebrovascular Diseases	56	58.8	55	60.8	1	•	-	•
Accidents and Adverse Effects	30	31.5	29	32.1	1	*	7	25.3
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	32	33.6	32	35.4	•	-	-	•
Pneumonia and Influenza	31	32.5	30	33.2	1	*	-	-
Diabetes Mellitus	7	7.3	7	7.7	-	-	-	-
Chronic Liver Disease and Cirrhosis	4	*	4	•	-	-	•	
Homicide	3	*	3	*	-	-	1	*
Suicide	4	*	4	•	-	-	-	-
Atherosclerosis	11	11.5	11	12.2	-	-	-	-
AIDS	4	*	4	*	-	-	•	-

Profile of Emmet County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1992:	26.057	Total Live Births:	366	Total Deaths:	283
Rank Among Counties:	52	Teenage Mothers:	36	Infant Deaths:	-
Per Square Mile:	55.7	Low Weight Births:	22	Neonatal Deaths:	-
1 cr oquare isine.		First Births:	133	Postneonatal Deaths:	-
4				Perinatal Deaths:	4
				Fetal Deaths:	4
MARRIAGE		DIVORCE			
Marriages:	280	Divorces:	149		
Marriage Rate:	21.5	Divorce Rate:	11.4		



NATALITY BY RACE OF MOTHER

	To	tal	w	hite	В	ack	Ott	er
Live Births	Number 366	Rate 14.0	Number 341	Rate 13.6	Number 1	Rate	Number 24	Rate 29.8
	To	ital	w	hite	В	ack	Oth	ner
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	36	98.4	34	99.7	-	•	2	*
Low Weight	22	60.1	21	61.6	-	•	1	*
Under 1,500 Grams	3		3	•	-	-	•	-
< 38 Weeks Gestation	69	188.5	61	178.9	•	-	8	333.3
Prenatal Care Began in 1st Trimester	306	836.1	288	844.6	1	•	17	708.3

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tot	al	White		Bla	ck	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Infant Deaths	-	-	-	•	-	-	•	-	
Neonatal Deaths	•	-	•	•	-	•	•	-	
Postneonatal Deaths	•	-	-	-	•	-	•	-	
Perinatal Deaths	4	•	4	•	-	-	-	-	
Fetal Deaths	4	*	4	*	-	•	-	-	

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

Deaths	Total 283	All Rac Male 140	Fer	nale 43	Total 270	White Male 134	Female 136	Total 2	Black Male 2	Female -	Total 10	Other Male 4	Female 6
						A	ge 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	6	4	15	17	47	189	-
White Male	-	-	1	-	1	-	4	1	8	9	30	80	-
White Female	-	•	-	-	-	2	2	3	4	7	13	105	-
Black Male		•	-	-	-	-	-	-	1	-	1	-	-
Black Female		-	-	-	-		-	-	-	-	-	-	-
Other Male		-	-	-	-	1	•	•	1	-	2	-	-
Other Female	-	-	-	-	-	-	-	-	1	1	1	3	-

LEADING CAUSES OF DEATH

	T	otal	w	hite	Bla	ıck	Children Ag	jes 1-19
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	283	1,086.1	270	1,075.4	2	*	2	•
Diseases of the Heart	96	368.4	93	370.4	1	•	-	•
Malignant Neoplasms	52	199.6	49	195.2	-	-	1	•
Cerebrovascular Diseases	15	57.6	15	59.7	-	-	-	-
Accidents and Adverse Effects	15	57.6	14	55.8	-	-	1	•
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	16	61.4	16	63.7	-	-	-	•
Pneumonia and Influenza	19	72.9	18	71.7	•	-	-	•
Diabetes Mellitus	4	•	3	•	-	-	-	-
Chronic Liver Disease and Cirrhosis	3	*	2	•	-	•	-	•
Homicide	-	-	-	-	-	-	-	-
Suicide	5	•	5	•	-	-	-	-
Atherosclerosis	1	*	1	•	-	-	-	-
AIDS	3	*	2	•	1	•	-	-
1								

Profile of Genesee County

r					
POPULATION		NATALITY		MORTALITY	
As of April 1, 1992:	433,508	Total Live Births:	6,610	Total Deaths:	3,629
Rank Among Counties:	[′] 5	Teenage Mothers:	1,138	Infant Deaths:	96
Per Square Mile:	675.7	Low Weight Births:	631	Neonatal Deaths:	63
		First Births:	2.594	Postneonatal Deaths:	33
			•	Perinatal Deaths:	83
				Fetal Deaths:	27
MARRIAGE		DIVORCE			
Marriages:	3,320	Divorces:	1,881		
Marriage Rate:	15.3	Divorce Rate:	8.7		



NATALITY BY RACE OF MOTHER

	To	Total		'hite	BI	ack	Other	
ŀ	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	6,610	15.2	4,484	13.2	2,033	23.3	87	13.3
	To	otal	w	'hite	ВІ	ack	Oti	her
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	1,138	172.2	583	130.0	541	266.1	12	137.9
Low Weight	631	95.5	330	73.6	296	145.6	5	*
Under 1.500 Grams	137	20.7	68	15.2	67	33.0	2	*
< 38 Weeks Gestation	1,243	188.0	755	168.4	468	230.2	18	206.9
Prenatal Care Began in	•							
1st Trimester	5,493	831.0	3,950	880.9	1,467	721.6	71	816.1

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tot	al	Wh	ite	Bla	ck	Oth	er
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	96	14.5	43	9.6	51	25.1	2	•
Neonatal Deaths	63	9.5	30	6.7	31	15.2	2	•
Postneonatal Deaths	33	5.0	13	2.9	20	9.8	-	-
Perinatal Deaths	- 83	12.5	43	9.6	37	18.1	2	*
Fetal Deaths	27	4.1	15	3.3	11	5.4	-	-

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

	Total	All Rac Male	Fer	male	Total	White Male	Female	Total	Black Male	Female	Total	Other Male	Female
Deaths	3,629	1,814	1,8	815	2,884	1,405	1,479	725	395	330	20	14	6
							ge 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	96	13	7	10	27	44	40	127	202	327	642	2,094	-
White Male	25	3	1	4	12	13	15	55	82	154	302	739	-
White Female	18	2	2	2	-	7	8	25	48	90	199	1,078	-
Black Male	28	4	4	4	12	19	11	26	43	47	76	121	-
Black Female	23	2	-	-	3	4	6	20	28	31	62	151	
Other Male	-	1	-	-		1	-	-	1	4	2	5	-
Other Female	2	1	•	•	-	-	-	1	•	1	1	-	-

LEADING CAUSES OF DEATH

	To	tal	Wt	nite	Bla	ack	Children Ages 1-19		
•	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
All Causes	3,629	837.1	2,884	848.9	725	831.1	57	45.2	
Diseases of the Heart	1,303	300.6	1,096	322.6	200	229.3	•	-	
Malignant Neoplasms	792	182.7	636	187.2	151	173.1	3	•	
Cerebrovascular Diseases	238	54.9	193	56.8	45	51.6	•	-	
Accidents and Adverse Effects	147	33.9	105	30.9	38	43.6	22	17.4	
Chronic Obstructive Pulmonary Diseases									
and Allied Conditions	168	38.8	144	42.4	24	27.5	2		
Pneumonia and Influenza	84	19.4	74	21.8	9	10.3	1		
Diabetes Mellitus	96	22.1	71	20.9	25	28.7	-	-	
Chronic Liver Disease and Cirrhosis	43	9.9	29	8.5	14	16.0	-	-	
Homicide	64	14.8	15	4.4	49	56.2	13	10.3	
Suicide	46	10.6	39	11.5	7	8.0	1	*	
Atherosclerosis	23	5.3	22	6.5	1	•			
AIDS	21	4.8	14	4.1	7	8.0	-		

Profile of Gladwin County

POPULATION As of April 1, 1992:	23.007	NATALITY Total Live Births:	270	MORTALITY Total Deaths:	291
Rank Among Counties:	54	Teenage Mothers:	47	Infant Deaths:	1
Per Square Mile:	45.5	Low Weight Births:	19	Neonatal Deaths:	1
i or oqual o timo.		First Births:	101	Postneonatal Deaths:	-
				Perinatal Deaths:	1
				Fetal Deaths:	1
MARRIAGE		DIVORCE			
Marriages:	177	Divorces:	105		
Marriage Rate:	15.4	Divorce Rate:	9.1		



NATALITY BY RACE OF MOTHER

	To	tal	w	hite	81	ack	Oth	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	270	11.7	268	11.8	-	-	2	•
	To	tal	w	hite	Bi	ack	Ott	ner
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	47	174.1	47	175.4	-	-	-	-
Low Weight	19	70.4	19	70.9	•	-	•	-
Under 1,500 Grams	6	22.2	6	22.4	•	•	-	-
< 38 Weeks Gestation	49	181.5	49	182.8	•	-	-	-
Prenatal Care Began in 1st Trimester	213	788.9	212	791.0	-	-	1	•

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tot	al	Wh	ite	Blac	ck	Oth	er
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	1	•	1	•	-	-	-	•
Neonatal Deaths	1	*	1	*	-	-	•	•
Postneonatal Deaths	-	-	-	-	-	-	-	•
Perinatal Deaths	1	•	1	*	-	-	-	-
Fetal Deaths	1	•	1	•		-	-	-

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

Deaths	Total 291	Ali Race Male 157	Fer	nale 34	Total 291	White Male 157	Female 134	Total -	Black Male -	Female	Total -	Other Maie -	Female
							ge in Years		40.40	50-59	60-69	70+	Unk
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49				Offic
Total Deaths	1	-	1	-	2	-	1	6	5	27	50	198	-
White Male	1	_	1		2	_	1	4	4	17	33	94	-
White Female				_		_	-	2	1	10	17	104	-
	-	•	_	-	-			-				-	-
Black Male	-	-	-	-	-	-	-	-	-	_	_	_	-
Black Fernale	-	-	-	-	-	-	•	-	-	-	-	•	•
Other Male	•	-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	•

LEADING CAUSES OF DEATH

	- т	otal	W	hite	Bla	ck	Children Ag	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	291	1.264.8	291	1,276.0	-	-	3	•
Diseases of the Heart	107	465.1	107	469.2	-	-	•	
Malignant Neoplasms	68	295.6	68	298.2	-	-	-	
Cerebrovascular Diseases	22	95.6	22	96.5	-	-	-	
Accidents and Adverse Effects	7	30.4	7	30.7	-	-	2	•
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	13	56.5	13	57.0	-	-	-	
Pneumonia and Influenza	11	47.8	11	48.2	-	-	-	
Diabetes Mellitus	7	30.4	7	30.7	-	-	-	
Chronic Liver Disease and Cirrhosis	5		5	*	-	-	-	
Homicide	1	*	1	*	•	-	•	
Suicide	4	*	4	*	-	-	1	,
Atherosclerosis	5	•	5	•	-	•	-	
AIDS	-	-	-	-	-	-	-	

Profile of Gogebic County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1992:	17,891	Total Live Births:	167	Total Deaths:	228
Rank Among Counties:	64	Teenage Mothers:	16	Infant Deaths:	1
Per Square Mile:	16.2	Low Weight Births:	12	Neonatal Deaths:	1
		First Births:	70	Postneonatal Deaths:	-
				Perinatal Deaths:	3
				Fetal Deaths:	2
MARRIAGE		DIVORCE			
Marriages:	134	Divorces:	65		
Marriage Rate:	15.0	Divorce Rate:	7.3		



NATALITY BY RACE OF MOTHER

	To	xtal	w	hite	BI	ack	Ott	ner
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	167	9.3	157	9.1	-	-	10	30.0
	To	otai	w	hite	ВІ	ack	Ott	er
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	16	95.8	14	89.2	-	-	2	*
Low Weight	12	71.9	12	76.4	-		-	-
Under 1,500 Grams	3	•	3	*	-	•	•	-
< 38 Weeks Gestation	34	203.6	33	210.2	-	-	1	*
Prenatal Care Began in								
1st Trimester	139	832.3	134	853.5	•	-	5	*

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		Wh	ite	Bla	ck	Oth	er
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	1	•	1	•	-	-	-	-
Neonatal Deaths	1	*	1	*	-	-	•	•
Postneonatal Deaths	•	-	-	-	-	-	-	•
Perinatal Deaths	3	•	3	*	•	-	-	•
Fetal Deaths	2	*	2	*	•	-	-	-

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

Deaths	Total 228	All Rac Male 116	Fer	nale 12	Total 226	White Male 115	Female 111	Total -	Black Male	Female -	Total 2	Other Male 1	Female 1
1						A	ge 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	1	3	1	10	37	171	-
White Male		-	-		1	3	1	2	1	5	22	80	-
White Female	1	-	-		-	-	-	1	-	4	15	90	-
Black Male	-	-	-	-	-	-	-	-	-	-	-		-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	1	-	-	-
Other Female	-	-	-	•	-	-	•	-	•	-	-	1	-

LEADING CAUSES OF DEATH

	т	otal	W	hite	Bla	ck	Children Ag	es 1-19
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	228	1,274.4	226	1,307.2	-	-	1	*
Diseases of the Heart	81	452.7	80	462.7	•	-	-	-
Malignant Neoplasms	54	301.8	53	306.6		•	-	-
Cerebrovascular Diseases	13	72.7	13	75.2	-	•	-	•
Accidents and Adverse Effects	9	50.3	9	52.1	-	-	-	-
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	9	50.3	9	52.1	-	•	-	-
Pneumonia and Influenza	15	83.8	15	86.8	•	•	-	-
Diabetes Mellitus	4	*	4	•	-	-	-	-
Chronic Liver Disease and Cirrhosis	1	•	1	•	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	4	•	4	•	•	•	1	•
Atherosclerosis	-	-	-	-	-	-	-	-
AIDS	-	-	-	•	-	-	-	-

Profile of Grand Traverse County

POPULATION	<u>-</u>	NATALITY		MORTALITY	
As of April 1, 1992:	67.290	Total Live Births:	903	Total Deaths:	551
Rank Among Counties:	27	Teenage Mothers:	73	Infant Deaths:	3
Per Square Mile:	144.3	Low Weight Births:	40	Neonatal Deaths:	-
, or oqual o mino.		First Births:	334	Postneonatal Deaths:	3
				Perinatal Deaths:	3
ł				Fetal Deaths:	3
MARRIAGE		DIVORCE			
Marriages:	653	Divorces:	386		
Малтіаде Rate:	19.4	Divorce Rate:	11.5		



NATALITY BY RACE OF MOTHER

	To	tal	w	hite	BI	ack	Oti	ner
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	903	13.4	880	13.3	3	•	19	19.7
	To	ta!	w	hite	Bi	ack	Ott	ner
į	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	73	80.8	69	78.4	1	•	3	*
Low Weight	40	44.3	38	43.2	1	•	1	•
Under 1,500 Grams	7	7.8	7	8.0	-	-	-	-
< 38 Weeks Gestation	142	157.3	140	159.1	-	-	2	*
Prenatal Care Began in 1st Trimester	735	814.0	723	821.6	2	•	10	526.3

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tot	al	Whi	ite	Blac	ck	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Infant Deaths	3	*	3	*	-	-	-	-	
Neonatal Deaths		-	-	-	-	-	-	-	
Postneonatal Deaths	3	*	3	*	\ -	-	-	-	
Perinatal Deaths	3	•	3	*	-	-	•	•	
Fetal Deaths	3	•	3	•	•	-	-	-	

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

Deaths	Total 551	All Race Male 268	Fer	nale 83	Total 544	White Male 265	Female 279	Totai 1	Black Male -	Female 1	Total 5	Other Male 3	Female 2
						A	ge 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	2	-		4	3	2	8	24	46	70	389	-
White Male	1	Ĩ	-	_	4	2	2	6	14	31	37	167	•
White Female	2	-	-	_	-	1	•	2	10	14	33	217	-
Black Male	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Female		1	-		-		-	-	-	-	-	-	-
Other Male			-	-	-	-	-	•	-	1	-	2	-
Other Female	-	-	-	-	-	-	-	-	-	-	•	2	-

LEADING CAUSES OF DEATH

	To	tal	Wi	rite	Bla	ck	Children Ag	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	551	818.8	544	823.8	1	*	6	31.1
Diseases of the Heart	174	258.6	173	262.0	-	-	-	
Malignant Neoplasms	143	212.5	141	213.5	-	-	-	
Cerebrovascular Diseases	43	63.9	43	65.1	-	-	-	
Accidents and Adverse Effects	24	35.7	24	36.3	-	•	4	•
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	28	41.6	27	40.9	-	-	-	
Pneumonia and Influenza	16	23.8	16	24.2	-	-	•	
Diabetes Mellitus	9	13.4	8	12.1	-	-	-	
Chronic Liver Disease and Cirrhosis	3	*	3	*	-	-	-	
Homicide	1	•	1	*	•	-	-	
Suicide	9	13.4	9	13.6	-	-	1	•
Atherosclerosis	6	8.9	6	9.1	-	•	-	
AIDS	2	*	2	•	-	-	-	

Note: Rate is per 100,000 estimated population in 1992 in specified group. Office of the State Registrar and Division of Health Statistics, MDPH Source:

Profile of Gratiot County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1992:	39,450	Total Live Births:	515	Total Deaths:	394
Rank Among Counties:	40	Teenage Mothers:	76	Infant Deaths:	4
Per Square Mile:	69.2	Low Weight Births:	33	Neonatal Deaths:	2
		First Births:	209	Postneonatal Deaths:	2
				Perinatal Deaths:	6
				Fetal Deaths:	4
MARRIAGE		DIVORCE			
Marriages:	288	Divorces:	176		
Marriage Rate:	14.6	Divorce Rate:	8.9		



NATALITY BY RACE OF MOTHER

	To	xtal	W	hite	Bl	ack	Ott	ner
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	515	13.1	511	13.2	1	•	3	•
	To	otal	w	hite	BI	ack	Ott	ner
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	76	147.6	76	148.7	•	-	-	-
Low Weight	33	64.1	31	60.7	•	•	2	*
Under 1,500 Grams	6	11.7	6	11.7	•	-	-	-
< 38 Weeks Gestation	83	161.2	83	162.4	-	-	•	-
Prenatal Care Began in								
1st Trimester	413	801.9	410	802.3	1	*	2	•

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tot	al	Wh	ite	Blad	ck	Oth	er
	Number	Number Rate		Rate	Number	Rate	Number	Rate
Infant Deaths	4	•	4	*	-	-	•	•
Neonatal Deaths	2	•	2	*	-	-	-	•
Postneonatal Deaths	2	•	2	*	-	-	-	-
Perinatal Deaths	6	11.6	5	*	1	*	•	•
Fetal Deaths	4	•	3	•	1	*	•	-

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

Deaths	Total 394	All Rac Male 214	Fer	nale 80	Total 393	White Male 214	Female 179	Total 1	Black Male -	Female 1	Total -	Other Male	Female
						A	ge 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	-	-	-	7	2	-	6	7	21	60	287	-
White Male	1	-	-	-	5	2	-	5	5	15	38	143	•
White Female	3	-	-		2	-	-	1	2	6	22	143	•
Black Male		-	-	-	-	-	-	-	-	-	-	-	-
Black Female	•	-	-		-	-	-	-	-	-	-	1	-
Other Male	-	-	-	-	-	-	-	•	-	-	-	-	•
Other Female	-	-	•	-	-	-	-	-	-	-	-	-	-

LEADING CAUSES OF DEATH

	To	tal	W	hite	Bla	ck	Children Ag	jes 1-19
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	394	998.7	393	1,013.9	1	*	7	61.1
Diseases of the Heart	141	357.4	141	363.8	-	-	•	-
Malignant Neoplasms	80	202.8	80	206.4	•	-	-	
Cerebrovascular Diseases	38	96.3	38	98.0	•	-	•	•
Accidents and Adverse Effects	15	38.0	15	38.7	-	-	5	•
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	17	43.1	17	43.9	-	-	-	
Pneumonia and Influenza	36	91.3	36	92.9	_	-	1	•
Diabetes Mellitus	7	17.7	7	18.1	-	-	-	
Chronic Liver Disease and Cirrhosis	3	•	3	•	•	•	-	
Homicide	-	-	-	-	•	-	-	
Suicide	3	*	3	•	-	•	1	•
Atherosclerosis	2	*	2	•	-	-	•	
AIDS	1	•	1	•	-	•	-	

Note: Rate is per 100,000 estimated population in 1992 in specified group.

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

Profile of Hillsdale County

POPULATION As of April 1, 1992: Rank Among Counties: Per Square Mile:	44,407 36 73.7	NATALITY Total Live Births: Teenage Mothers: Low Weight Births: First Births:	582 107 34 242	MORTALITY Total Deaths: Infant Deaths: Neonatal Deaths: Postneonatal Deaths: Perinatal Deaths: Fetal Deaths:	403 9 4 5 9 6
MARRIAGE Marriages: Marriage Rate:	337 15.2	DIVORCE Divorces: Divorce Rate:	248 11.2		



NATALITY BY RACE OF MOTHER

	To	tal	w	hite	Bla	ack	Ott	er
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	582	13.1	575	13.1	-	•	7	23.8
	To	tal	w	hite	Bl	ack	Oth	er
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	107	183.8	104	180.9	-	•	3	*
Low Weight	34	58.4	33	57.4	-	-	1	*
Under 1.500 Grams	5	*	5	•	-	-	-	-
< 38 Weeks Gestation	98	168.4	93	161.7	-	-	5	•
Prenatal Care Began in 1st Trimester	428	735.4	422	733.9	-	-	6	857.1

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tot	ai	Wh	ite	Blac	ck	Oth	er
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	9	15.5	9	15.7	•	-	-	-
Neonatal Deaths	4	•	4	•	•	-	•	-
Postneonatal Deaths	5	*	5	•	-	-	-	-
Perinatal Deaths	9	15.3	9	15.5	-	-	-	-
Fetal Deaths	6	10.2	6	10.3	-	-	-	•

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

Deaths	Total 403	All Race: Male 208	Fer	nale 95	Total 402	White Male 207	Female 195	Total -	Black Male -	Female -	Total 1	Other Male 1	Female -
						A	ge in Years						
1	<1	1-4	5-9	10-14	15-19	20-24		30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	`` <u>9</u>	4	٠.	2	4	4	2	8	21	29	50	270	-
White Male	7	1		2	2	2	-	4	14	18	35	122	-
	2	3		-	2		2	4	7	11	15	147	-
White Female	2	3	•	-	_	-	-	_	_			-	-
Black Male	•	•	•	-	-	•	-	•	_			_	_
Black Female	-	-	-	-	-	-	-	-	-	•	-	- 4	Ĭ
Other Male	-	-	-	-	-	-	-	•	-	-	•	1	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	•	-

LEADING CAUSES OF DEATH

	To	tal	Wi	nite	Bla	ck	Children Ag	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	403	907.5	402	913.9	-	•	10	74.5
Diseases of the Heart	119	268.0	119	270.5	-	-	-	
Malignant Neoplasms	88	198.2	88	200.1	•	-	3	•
Cerebrovascular Diseases	28	63.1	28	63.7	•	-	-	
Accidents and Adverse Effects	22	49.5	22	50.0	•	-	4	1
Chronic Obstructive Pulmonary Diseases and Allied Conditions	20	45.0	20	45.5		•	-	
and Allied Conditions Pneumonia and Influenza	14	31.5	13	29.6	-	-	-	
Diabetes Mellitus	9	20.3	9	20.5	-	-	•	
Chronic Liver Disease and Cirrhosis	5	*	5	•	-	-	-	
Homicide	2	*	2	*	-	-	-	
Suicide	2	•	2	•		-	-	
Atherosclerosis	2		2	*	-	-	-	
AIDS	1	•	1	*	-	-	-	

Profile of Houghton County

		· · · · · · · · · · · · · · · · · · ·			
POPULATION		NATALITY		MORTALITY	
As of April 1, 1992:	35.831	Total Live Births:	395	Total Deaths:	401
Rank Among Counties:	43	Teenage Mothers:	35	Infant Deaths:	1
Per Square Mile:	35.4	Low Weight Births:	12	Neonatal Deaths:	1
		First Births:	124	Postneonatal Deaths:	-
1				Perinatal Deaths:	4
				Fetal Deaths:	3
MARRIAGE		DIVORCE			
Marriages:	232	Divorces:	117		
Marriage Rate:	12.9	Divorce Rate:	6.5		



NATALITY BY RACE OF MOTHER

	To	tal	w	hite	BI	ack	Oti	ner
1	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	395	11.0	378	10.9	3	•	14	15.9
	To	tal	w	'hite	ВІ	ack	Oti	ner
1	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	35	88.6	34	89.9	1	*	-	-
Low Weight	12	30.4	12	31.7	•	•	-	-
Under 1,500 Grams	1	•	1	•		•	-	-
< 38 Weeks Gestation	50	126.6	47	124.3	1	*	2	•
Prenatal Care Began in 1st Trimester	311	787.3	298	788.4	-	-	13	928.6

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tot	al	Whi	ite	Blad	:k	Oth	er
1	Number	Number Rate		Rate	Number	Rate	Number	Rate
Infant Deaths	1	*	1	•	-	-	-	-
Neonatal Deaths	1	•	1	*	-	-	-	-
Postneonatal Deaths	-	-	•	-	-	-	-	-
Perinatal Deaths	4	•	4	•	-	-	-	-
Fetal Deaths	3	•	3	•	-	•	-	-

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

Deaths	Total 401	Ail Rac Male 212	Fer	nale 89	Total 399	White Male 211	Female 188	Total	Biack Male	Female	Total 2	Other Male 1	Female 1
			•										
						Δ	ge in Years						
	<1	1-4	5-9	10-14	15-19	20-24		30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	1	1	-	-	3	2	-	5	12	26	41	310	-
White Male	1	1	-	-	2	1	•	4	9	18	29	146	-
White Female	-	-	-		1	-	-	1	3	8	12	163	•
Black Male	-	-	-	-	-	-	•	-	-	•	-		•
Black Female	-	-	-	-	•	-	-	-	-	-	-	-	_
Other Male		-	-	-	-	-	-	•	-	-	-	1	•
Other Female	-	-	-	-	-	1	•	-	-	-	•	-	•

LEADING CAUSES OF DEATH

	Total		w	hite	Bla	ck	Children Ag	es 1-19
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	401	1,119.1	399	1,147.2	-	-	4	*
Diseases of the Heart	163	454.9	163	468.7	•	-	-	-
Malignant Neoplasms	79	220.5	79	227.1	•	-	•	-
Cerebrovascular Diseases	35	97.7	34	97.8	-	-	•	-
Accidents and Adverse Effects	12	33.5	11	31.6	-	-	4	*
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	15	41.9	15	43.1	-	-	-	•
Pneumonia and Influenza	18	50.2	18	51.8	-	-	-	•
Diabetes Mellitus	7	19.5	7	20.1	-	-	-	-
Chronic Liver Disease and Cirrhosis	2	•	2	•	-	-	-	-
Homicide	-	-	•	-	-	-	-	-
Suicide	2	•	2	•	-	-	-	-
Atherosclerosis	4	*	4		•	•	•	-
AIDS	-	-	•	•	•	-	-	-

Note: Rate is per 100,000 estimated population in 1992 in specified group. Office of the State Registrar and Division of Health Statistics, MDPH

Profile of Huron County

POPULATION As of April 1, 1992: Rank Among Counties: Per Square Mile:	34,977 45 42.2	NATALITY Total Live Births: Teenage Mothers: Low Weight Births: First Births:	448 37 21 164	MORTALITY Total Deaths: Infant Deaths: Neonatal Deaths: Postneonatal Deaths: Perinatal Deaths: Fetal Deaths:	424 2 1 1 3
MARRIAGE Marriages: Marriage Rate:	235 13.4	DIVORCE Divorces: Divorce Rate:	131 7.5		



NATALITY BY RACE OF MOTHER

	To	xtal	w	'hite	Bia	ack	Oth	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	448	12.8	442	12.7	-	•	3	*
	To	otal	w	hite	Bla	ack	Oth	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	37	82.6	37	83.7	•	-	•	-
Low Weight	21	46.9	21	47.5	-	-	-	-
Under 1,500 Grams	2	•	2	•	•	-	•	-
< 38 Weeks Gestation	60	133.9	60	135.7	•	-	•	•
Prenatal Care Began in 1st Trimester	377	841.5	372	841.6	-	-	3	*

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tot	al	Whi	ite	Bla	ck	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 1994 in specified group.

MORTALITY

Deaths	Total 424	All Races Male 211	Fer	nale 13	Total 419	White Male 207	Female 212	Total 1	Black Male 1	Female -	Total 4	Other Male 3	Female 1
							ge in Years						11-1
1	<1	1-4	:-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	2	2		-	3	2	1	9	9	15	60	321	-
White Male	- 4	2	_		3	2	1	5	7	8	34	144	-
	- :	_	_		_	_	_	4	2	6	26	173	-
White Female	1	•	-	•	-	_	_	•	_	-		1	_
Black Male	-	•	-	-	-	-	•	•	-	_	_	•	_
Black Female	-	-	-	-	-	-	-	-	-	-	-		•
Other Male	_	-	-	-	-	-	-	-	-	1	-	2	-
Other Female	•	-	-	-	-	-	•	-	-	•	-	1	•

LEADING CAUSES OF DEATH

	Total		w	hite	Bla	ck	Children Ag	
·	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	424	1,212.2	419	1,204.8	1	*	5	
Diseases of the Heart	161	460.3	159	457.2	-	-	-	•
Malignant Neoplasms	89	254.5	87	250.2	1	•	•	-
Cerebrovascular Diseases	44	125.8	44	126.5	-	-	-	-
Accidents and Adverse Effects	12	34.3	11	31.6	-	•	1	•
Chronic Obstructive Pulmonary Diseases								_
and Allied Conditions	18	51.5	18	51.8	-	-	1	•
Pneumonia and Influenza	17	48.6	17	48.9	-	-	1	•
Diabetes Mellitus	11	31.4	11	31.6	-	-	-	•
Chronic Liver Disease and Cirrhosis	3		3	*	-	-	-	-
Homicide	1		1	*	-	-	1	•
Suicide	8	22.9	8	23.0	-	-	1	•
Atherosclerosis	3		3	•	-	-	-	•
AIDS	1	*	1	•	-	-	-	-

Note: Rate is per 100,000 estimated population in 1992 in specified group.

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

POPULATION	·	NATALITY		MORTALITY	
As of April 1, 1992:	281.798	Total Live Births:	4,051	Total Deaths:	1,859
Rank Among Counties:	7	Teenage Mothers:	529	Infant Deaths:	39
Per Square Mile:	503.5	Low Weight Births:	304	Neonatal Deaths:	23
1		First Births:	1,787	Postneonatal Deaths:	16
				Perinatal Deaths:	26
				Fetal Deaths:	7
MARRIAGE		DIVORCE			
Marriages:	2,334	Divorces:	1,165		
Marriage Rate:	16.6	Divorce Rate:	8.3		



	To	otal	w	hite	ВІ	ack	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Live Births	4,051	14.4	3,222	13.4	600	20.2	223	20.4	
	To	otal .	w	hite	ВІ	ack	Oti	her	
ĺ	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio	
Teenage Mothers	529	130.6	351	108.9	162	270.0	16	71.7	
Low Weight	304	75.0	216	67.0	72	120.0	15	67.3	
Under 1.500 Grams	58	14.3	40	12.4	16	26.7	1	*	
< 38 Weeks Gestation	674	166.4	497	154.3	133	221.7	42	188.3	
Prenatal Care Began in									
1st Trimester	3,353	827.7	2,768	859.1	416	693.3	166	744.4	

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

1	Total		Wh	ite	Bia	ck	Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	39	9.6	29	9.0	9	15.0	1	*
Neonatal Deaths	23	5.7	17	5.3	6	10.0	-	-
Postneonatal Deaths	16	3.9	12	3.7	3	•	1	*
Perinatal Deaths	26	6.4	19	5.9	7	11.6	•	-
Fetal Deaths	7	1.7	6	1.9	1	•	-	-

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

		All Rac		_		White			Black			Other	
	Total	Male		nale	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	1,859	892	9	67	1,663	781	882	174	97	77	22	14	8
													1
						Α	ge 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	9	4	6	10	16	17	67	95	145	272	1179	-
White Male	17	1	-	5	8	7	12	37	51	72	139	432	-
White Female	12	5	1 -	1	-	7	3	16	22	48	101	666	-
Black Male	4	-	2	-	1	2	2	10	15	16	16	29	-
Black Female	5	1	1	-	1	-	-	2	7	8	11	41	•
Other Male	1	1	-	-	-	-	-	1	-	1	5	5	•
Other Female	-	1	-	•	-	-	-	1	-	•	-	6	-

LEADING CAUSES OF DEATH

	Total		Wi	nite	Bla	ick	Children Ag	es 1-19
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	1,859	659.7	1,663	689.7	174	585.1	29	35.9
Diseases of the Heart	597	211.9	546	226.4	49	164.8	2	*
Malignant Neoplasms	423	150.1	384	159.3	33	111.0	3	*
Cerebrovascular Diseases	124	44.0	110	45.6	10	33.6	-	-
Accidents and Adverse Effects	82	29.1	73	30.3	8	26.9	14	17.3
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	81	28.7	80	33.2	1	*	1	•
Pneumonia and Influenza	64	22.7	59	24.5	5	•	-	-
Diabetes Mellitus	52	18.5	42	17.4	8	26.9	•	-
Chronic Liver Disease and Cirrhosis	14	5.0	12	5.0	1	*	•	-
Homicide	10	3.5	4	*	6	20.2	2	
Suicide	29	10.3	26	10.8	2	*	3	
Atherosclerosis	15	5.3	13	5.4	2	*	-	-
AIDS	15	5.3	10	4.1	5	•	-	-

Profile of Ionia County

POPULATION As of April 1, 1992: Rank Among Counties: Per Square Mile:	57,986 30 100.5	NATALITY Total Live Births: Teenage Mothers: Low Weight Births: First Births:	818 109 56 333	MORTALITY Total Deaths: Infant Deaths: Neonatal Deaths: Postneonatal Deaths: Perinatal Deaths: Fetal Deaths:	433 5 2 3 8 6
---	-----------------------	---	-------------------------	--	------------------------------



Marriages: 426 Divorces: Marriage Rate: 14.7 Divorce Rate:

			NATALITY	BY RACE OF	MOTHER		_		
	То	otal	w	hite	Bla	ack	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Live Births	818	14.1	797	14.7	3	•	16	42.2	
	To	xtal	w	hite	Bla	ack	Oth	ner	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio	
Teenage Mothers	109	133.3	104	130.5	1		4	*	
Low Weight	56	68.5	53	66.5	-	-	3	*	
Under 1,500 Grams	8	9.8	8	10.0	-	-	-	-	
< 38 Weeks Gestation	134	163.8	132	165.6	-	-	2	*	
Prenatal Care Began in 1st Trimester	657	803.2	644	808.0	2	•	9	562.5	

288

9.9

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tot	al	Whi	ite	Bla	ck	Oth	er
1	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	5	•	5	*	-	-	-	•
Neonatal Deaths	2	•	2	*	•	-	-	-
Postneonatal Deaths	3	*	3	*	-	-	-	-
Perinatal Deaths	8	9.7	8	10.0	-	-	•	-
Fetal Deaths	6	7.3	6	7.5	-	-	-	•

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

Deaths	Total 433	All Race Male 223	Fer	nale . 10	Total 427	White Male 219	Female 208	Total 3	Black Male 3	Female -	Total 3	Other Male 1	Female 2
1						Ag	ge 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	2	2	1	8	18	32	65	296	- 1
White Male	3	ì	-	1	-	2	1	7	10	15	41	138	-
White Female	2	1	-	-	2	-	-	1	8	16	24	154	-
Black Male	-	•	-	-	-	-	-	-	-	-	-	3	- 1
Black Female	•	-	-	-	-	-	-	-	•	-	-	-	-
Other Male		1	-	-	-	-	-	-	-	-	-	-	•
Other Female	-	-	-	-	•	-	-	•	•	1	•	1	-

LEADING CAUSES OF DEATH

	Total		Wh	White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
All Causes	433	746.7	427	786.3	3	*	6	34.2	
Diseases of the Heart	134	231.1	131	241.2	1	•	-	-	
Malignant Neoplasms	105	181.1	103	189.7	2	*	-	-	
Cerebrovascular Diseases	35	60.4	34	62.6	-	-	1	•	
Accidents and Adverse Effects	21	36.2	21	38.7	-	•	4	•	
Chronic Obstructive Pulmonary Diseases									
and Allied Conditions	28	48.3	28	51.6	-	-	-	•	
Pneumonia and Influenza	16	27.6	16	29.5	•	-	-	-	
Diabetes Mellitus	10	17.2	10	18.4	-	-	-		
Chronic Liver Disease and Cirrhosis	8	13.8	8	14.7	-	-	-	•	
Homicide	2	*	2	•	-	-	•		
Suicide	9	15.5	9	16.6	-	-	-		
Atheroscierosis	1	•	1	*	-	-	-		
AIDS	-	-	-	-	-	•	-		

Profile of losco County

					
POPULATION		NATALITY		MORTALITY	
As of April 1, 1992:	30,211	Total Live Births:	268	Total Deaths:	378
Rank Among Counties:	47	Teenage Mothers:	35	Infant Deaths:	6
Per Square Mile:	55.3	Low Weight Births:	24	Neonatal Deaths:	4
		First Births:	94	Postneonatal Deaths:	2
				Perinatal Deaths:	5
				Fetal Deaths:	2
MARRIAGE		DIVORCE			
Маггіages:	182	Divorces:	96		
Marriage Rate:	12.0	Divorce Rate:	6.4		



NATALITY BY RACE OF MOTHER

	To	Total		'hite	ВІ	ack	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Live Births	268	8.9	260	9.0	1	•	6	11.0	
	To	otal	w	hite	ВІ	ack	Oti	ner	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio	
Teenage Mothers	35	130.6	35	134.6	-	-	•	-	
Low Weight	24	89.6	22	84.6	•	•	1	•	
Under 1,500 Grams	6	22.4	5	*	•	•	-	-	
< 38 Weeks Gestation	50	186.6	48	184.6	•	-	1		
Prenatal Care Began in									
1st Trimester	212	791.0	207	796.2	1	•	4	•	

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tot	al	White		Bla	ck	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Infant Deaths	6	22.4	6	23.1	•	-	-	-	
Neonatal Deaths	4	•	4	•	-	-	-	-	
Postneonatal Deaths	2	•	2	•	•	-	-	•	
Perinatal Deaths	5	•	5	*	-	-	-	•	
Fetal Deaths	2	*	2	*	-	•	-	-	

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

		All Race	es			White			Black			Other	
	Total	Maie	Fer	nale	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	378	200	1	78	375	198	177	•	•	-	3	2	1
						A	ge 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	-	-	-	2	1	1	2	7	23	81	255	-
White Male	4	•	-	-	1	1	1	1	6	13	48	123	-
White Female	2	-	-	•	1	-	•	1	1	9	32	131	-
Black Male	-	-	-		-	-	•	-	-	-	-	-	-
Black Female		-	-		-	-	-	-	-	-	-	-	•
Other Male		-	-		-		-	-	-	1	-	1	-
Other Female	-	-	-	•	-	-	-	-	-	•	1	-	•

LEADING CAUSES OF DEATH

	τ.	otal	W	hite/	Bla	ck	Children Ag	es 1-19
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	378	1,251.2	375	1,291.1	-	-	2	•
Diseases of the Heart	124	410.4	123	423.5	-	-	•	-
Malignant Neoplasms	77	254.9	77	265.1	-	-	•	-
Cerebrovascular Diseases	25	82.8	25	86.1	•	•	-	-
Accidents and Adverse Effects	11	36.4	11	37.9	•	-	1	*
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	20	66.2	20	68.9	-	•	-	-
Pneumonia and Influenza	21	69.5	20	68.9		-	-	-
Diabetes Mellitus	7	23.2	7	24.1	-	-	-	-
Chronic Liver Disease and Cirrhosis	2	•	2	*	-	-	-	-
Homicide	1	•	1	*	-	-	1	•
Suicide	4	*	4	•	-	-	-	-
Atherosclerosis	17	56.3	17	58.5	-	•	•	-
AIDS	1		1	•	•	-	-	-

Note: Rate is per 100,000 estimated population in 1992 in specified group. Office of the State Registrar and Division of Health Statistics, MDPH Source:

Profile of Iron County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1992:	13,136	Total Live Births:	121	Total Deaths:	240
Rank Among Counties:	69	Teenage Mothers:	23	Infant Deaths:	-
Per Square Mile:	11.3	Low Weight Births:	7	Neonatal Deaths:	-
ret Square iville.	11.5	First Births:	51	Postneonatal Deaths:	-
1		i iist Diittis.	٠.	Perinatal Deaths:	-
				Fetal Deaths:	
		DIVORCE		i ciai boaine.	
MARRIAGE			59		
Marriages:	93	Divorces:			
Marriage Rate:	14.2	Divorce Rate:	9.0		



NATALITY BY RACE OF MOTHER

	To	Total		White		ack	Other		
Live Births	Number 121	Rate 9.2	Number 118	Rate 9.1	Number -	Rate -	Number 3	Rate	
	To	otal	w	hite	ВІ	ack	Oth	er	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio	
Teenage Mothers	23	190.1	22	186.4	-	-	1	*	
Low Weight	7	57.9	7	59.3	-	•	•	•	
Under 1,500 Grams	-	•	-	-	-	-	-	-	
< 38 Weeks Gestation	20	165.3	20	169.5	•	-	-	•	
Prenatal Care Began in 1st Trimester	96	793.4	94	796.6	-	-	2	*	

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tot	Total		White		ck	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 1994 in specified group.

MORTALITY

Deaths	Total 240	All Races Male 111	Fe	male 29	Total 238	White Male 111	Female 127	Total -	Black Male	Female -	Total 2	Other Male -	Female 2
						A	ge in Years						
1	<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	٠.		٠.			1	-	1	3	8	20	207	-
White Male	_	_	_			-	-	1	3	2	12	93	-
White Female	_	_		_			-	_	-	6	8	113	-
	-	•	-	-			_	_		_	-	-	-
Black Male	•	•	•		-		_	_	_	_	-	-	-
Black Female	•	•	•	-	-	•	•		-	-		_	_
Other Male	•	-	•	-	-	•	-	-	•	-	-		_
Other Female	-	-	-	-	-	1	-	•	-	-	•	1	•

LEADING CAUSES OF DEATH

	T	otal	W	hite	Bla	ck	Children Ag	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	240	1,827.0	238	1,834.3	•	-	-	-
Diseases of the Heart	86	654.7	86	662.8	-	-	-	•
Malignant Neoplasms	53	403.5	53	408.5	-	-	-	-
Cerebrovascular Diseases	34	258.8	33	254.3	-	-	•	-
Accidents and Adverse Effects	4	•	4	*	-	•	•	-
Chronic Obstructive Pulmonary Diseases and Allied Conditions	6	45.7	6	46.2	-	-	•	
Pneumonia and Influenza	14	106.6	14	107.9	-	-	-	
Diabetes Mellitus	12	91.4	12	92.5	•	-	-	
Chronic Liver Disease and Cirrhosis	1	*	1	*	-	-	-	
Homicide	-	-	-	-	-	-	•	
Suicide	2	*	2	*	•	-	-	
Atherosclerosis	1	•	1	•	-	-	-	
AIDS	1	•	1	•	-	-	-	•

POPULATION		NATALITY		MORTALITY	
As of April 1, 1992:	56,212	Total Live Births:	615	Total Deaths:	344
Rank Among Counties:	31	Teenage Mothers:	63	Infant Deaths:	6
Per Square Mile:	97.5	Low Weight Births:	29	Neonatal Deaths:	5
		First Births:	245	Postneonatal Deaths:	1
				Perinatal Deaths:	6
				Fetal Deaths:	2
MARRIAGE		DIVORCE			
Marriages:	457	Divorces:	231		
Marriage Rate:	16.3	Divorce Rate:	8.2		



NATALITY BY RACE OF MOTHER

	To	tal	w	hite	RI	ack	Ott	ner
Live Births	Number 615	Rate 10.9	Number 572	Rate 10.6	Number 10	Rate 14.6	Number 33	Rate 19.8
	To	tai	w	hite	Bi	ack	Oth	ier
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	63	102.4	56	97.9	1	•	6	181.8
Low Weight	29	47.2	28	49.0	-	-	1	*
Under 1,500 Grams	4	*	4	•		-	-	-
< 38 Weeks Gestation Prenatal Care Began in	90	146.3	81	141.6	-	-	9	272.7
1st Trimester	494	803.3	465	812.9	6	600.0	23	697.0

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tot	al	Wh	ite	Bla	ck	Oth	er
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	6	9.8	6	10.5	-	-	-	-
Neonatal Deaths	5	•	5	*	-	-	•	•
Postneonatal Deaths	1	*	1	*	-	-	•	-
Perinatal Deaths	6	9.7	5	*	-	-	1	•
Fetal Deaths	2	•	1	*	-	-	1	

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

Deaths	Total 344	All Race Male 186	Fei	nale 58	Total 331	White Male 178	Female 153	Total 2	Black Male 1	Female 1	Total 11	Other Male 7	Female 4
						A	ge in Years						
ť	<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	2	1	1	5	5	2	13	15	27	46	221	-
White Male	1	1	-	-	3	2	1	9	9	15	32	105	-
White Female	5	1	1	1	2	2	1	2	4	11	12	111	-
Black Male	_	-	-	-	-	-	-	-	-	•	-	1	•
Black Female	-	-	-	-	•		-		-	-	-	1	•
Other Male	-	-	-	-	-	•	-	2	2	-	1	2	•
Other Female	-	-	-	-	-	1	-	-	-	1'	1	1	•

LEADING CAUSES OF DEATH

	To	xtal	Wi	nite	Bla	ck	Children Ag	ges 1-19
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	344	612.0	331	614.6	2		9	53.4
Diseases of the Heart	108	192.1	106	196.8	1	*	-	-
Malignant Neoplasms	83	147.7	79	146.7	-	•	-	-
Cerebrovascular Diseases	33	58.7	32	59.4	-	•	-	-
Accidents and Adverse Effects	12	21.3	11	20.4	-	-	3	•
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	16	28.5	15	27.9	-	-	-	-
Pneumonia and Influenza	16	28.5	16	29.7	-	-	•	-
Diabetes Mellitus	8	14.2	7	13.0	-	-	•	-
Chronic Liver Disease and Cirrhosis	3	*	2	•	•	-	-	-
Homicide	3	*	2	•	-	-	•	-
Suicide	6	10.7	6	11.1	-	-	1	•
Atherosclerosis	5		5	•	-	-	-	-
AIDS	2		2		•	_	-	-

Profile of Jackson County

POPULATION As of April 1, 1992: Rank Among Counties: Per Square Mile:	151,740 13 215.3	NATALITY Total Live Births: Teenage Mothers: Low Weight Births: First Births:	2,063 323 155 840	MORTALITY Total Deaths: Infant Deaths: Neonatal Deaths: Postneonatal Deaths: Perinatal Deaths:	1,365 16 13 3 25
				Fetal Deaths:	13
MARRIAGE		DIVORCE			
Marriages:	1,207	Divorces:	779		
Marriage Rate:	15.9	Divorce Rate:	10.3	_	



NATALITY BY RACE OF MOTHER

İ								
	То	tal	W	hite	Bi	ack	Oth	er
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	2,063	13.6	1,824	13.2	206	16.6	19	13.5
	To	tal	w	hite	BI	ack	Oti	er
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	323	156.6	258	141.4	64	310.7	1	•
Low Weight	155	75.1	130	71.3	23	111.7	1	*
Under 1,500 Grams	37	17.9	29	15.9	8	38.8	•	-
< 38 Weeks Gestation	309	149.8	261	143.1	46	223.3	2	*
Prenatal Care Began in 1st Trimester	1,477	715.9	1,346	737.9	110	534.0	15	789.5

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tot	al	Wh	ite	Bla	ck	Oth	er
,	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	16	7.8	11	6.0	5	•	-	-
Neonatal Deaths	13	6.3	8	4.4	5	*	-	-
Postneonatal Deaths	3	*	3	*	-	-	-	-
Perinatal Deaths	25	12.0	17	9.3	7	33.7	1	•
Fetal Deaths	13	6.3	10	5.5	2	*	1	•

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

Deaths	Total 1,365	All Race Male 685	Fer	nale 80	Total 1,272	White Male 630	Female 642	Total 88	Black Male 54	Female 34	Total 5	Other Male 1	Female 4
						A	ge in Years						
1	<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	5	5	2	9	9	9	40	72	109	194	895	-
White Male	4	2	4	1	5	6	5	19	40	55	112	377	-
White Female	7	2	1	1	3	-	1	11	19	42	72	483	-
Black Male	•	-		-	-	2	2	7	10	7	6	19	•
Black Female	4				1		1	3	3	4	4	14	•
Other Male			_	_	-	1	-	-	-	-	-	-	-
Other Female	•	1	-	-	-	-	-	-	-	1	-	2	•

LEADING CAUSES OF DEATH

	To	tal	Wh	ite	Bla	ick	Children Ag	es 1-19
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	1.365	899.6	1,272	922.3	88	709.0	21	51.7
Diseases of the Heart	422	278.1	401	290.7	21	169.2	1	•
Malignant Neoplasms	333	219.5	319	231.3	14	112.8	3	•
Cerebrovascular Diseases	88	58.0	82	59.5	6	48.3	-	-
Accidents and Adverse Effects	42	27.7	36	26.1	4		6	14.8
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	77	50.7	74	53.7	2	•	1	•
Pneumonia and Influenza	75	49.4	70	50.8	5	•	-	•
Diabetes Mellitus	20	13.2	17	12.3	3		-	•
Chronic Liver Disease and Cirrhosis	10	6.6	8	5.8	2		-	•
Homicide	7	4.6	5	*	2	*	1	
Suicide	12	7.9	10	7.3	2	•	3	*
Atherosclerosis	13	8.6	13	9.4	•	-	•	•
AIDS	19	12.5	9	6.5	10	80.6	-	-

Profile of Kalamazoo County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1992:	225.648	Total Live Births:	3,168	Total Deaths:	1,669
Rank Among Counties:	8	Teenage Mothers:	342	Infant Deaths:	16
Per Square Mile:	401.5	Low Weight Births:	202	Neonatal Deaths:	11
. c. equal o mino.		First Births:	1.292	Postneonatal Deaths:	5
				Perinatal Deaths:	27
				Fetal Deaths:	19
MARRIAGE		DIVORCE			
Marriages:	1.958	Divorces:	1,046		
Marriage Rate:	17.4	Divorce Rate:	9.3		



NATALITY BY RACE OF MOTHER

	To	ntai	w	hite	BI	ack	Ott	ner
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	3,168	14.0	2,643	13.2	464	22.1	60	12.8
	To	otal	w	hite	В	ack	Oti	ner
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	342	108.0	212	80.2	121	260.8	9	150.0
Low Weight	202	63.8	150	56.8	48	103.4	4	*
Under 1.500 Grams	33	10.4	19	7.2	14	30.2	-	-
< 38 Weeks Gestation	489	154.4	363	137.3	113	243.5	13	216.7
Prenatal Care Began in 1st Trimester	2,724	859.8	2,348	888.4	324	698.3	51	850.0

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		Wh	ite	Bla	ck	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Infant Deaths	16	5.1	9	3.4	6	12.9	1	•	
Neonatal Deaths	11	3.5	6	2.3	5	•	-	-	
Postneonatal Deaths	5	•	3	*	1	•	1		
Perinatal Deaths	27	8.5	22	8.3	5	*	-	-	
Fetal Deaths	19	6.0	18	6.8	1	*	-	-	

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

		All Rac	es			White			Black			Other	
	Total	Male		nale	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	1,669	749	9:	20	1,530	678	852	128	65	63	11	6	5
						A	ge 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	3	-	4	14	12	19	50	63	107	238	1,143	-
White Male	5	-	-	2	7	9	10	31	29	49	110	426	-
White Female	4	2	-	1	5	3	3	12	21	41	103	657	-
Black Male	3	1	-	1	2	-	3	6	7	6	10	26	-
Black Female	3	-	-	-	-	-	1	1	6	8	14	30	-
Other Male	-	-	-	-	•		1	-	•	3	1	1	•
Other Female	1	-	-	-	•	-	1	-	-	•	•	3	-

Number 1,669 499 381 119	Rate 739.6 221.1 168.8	Number 1,530 465 342	Rate 765.1 232.5	Number 128 32	Rate 609.7 152.4	Number 21	Rate 34.0
499 381	221.1 168.8	465	232.5	32		21	34.0
381	168.8				152.4		_
		342					_
119			171.0	33	157.2	1	•
	52.7	107	53.5	12	57.2	-	-
74	32.8	71	35.5	2	•	12	19.4
81	35.9	76	38.0	5	•	1	•
68	30.1	65	32.5	3	*	•	
50	22.2	46	23.0	4	*	-	-
20	8.9	18	9.0	2	*	-	-
12	5.3	8	4.0	4	*	1	*
21	9.3	19	9.5	2	*	1	*
9	4.0	8	4.0	1	•	-	
13	5.8	13	6.5	-	-	•	-
	81 68 50 20 12 21	81 35.9 68 30.1 50 22.2 20 8.9 12 5.3 21 9.3 9 4.0	81 35.9 76 68 30.1 65 50 22.2 46 20 8.9 18 12 5.3 8 21 9.3 19 9 4.0 8	81 35.9 76 38.0 68 30.1 65 32.5 50 22.2 46 23.0 20 8.9 18 9.0 12 5.3 8 4.0 21 9.3 19 9.5 9 4.0 8 4.0	81 35.9 76 38.0 5 68 30.1 65 32.5 3 50 22.2 46 23.0 4 20 8.9 18 9.0 2 12 5.3 8 4.0 4 21 9.3 19 9.5 2 9 4.0 8 4.0 1	81 35.9 76 38.0 5 * 68 30.1 65 32.5 3 * 50 22.2 46 23.0 4 * 20 8.9 18 9.0 2 * 12 5.3 8 4.0 4 * 21 9.3 19 9.5 2 * 9 4.0 8 4.0 1	81 35.9 76 38.0 5 1 1 68 30.1 65 32.5 3 1 - 50 22.2 46 23.0 4 1 - 20 8.9 18 9.0 2 12 5.3 8 4.0 4 1 1 21 9.3 19 9.5 2 1 1 9 4.0 8 4.0 1 1 1

Profile of Kalkaska County

POPULATION		NATALITY	404	MORTALITY	135
As of April 1, 1992:	14,038	Total Live Births:	191	Total Deaths:	133
Rank Among Counties:	67	Teenage Mothers:	36	Infant Deaths:	1
Per Square Mile:	24.9	Low Weight Births:	16	Neonatal Deaths:	1
1 of equality trings		First Births:	81	Postneonatal Deaths:	-
				Perinatal Deaths:	1
				Fetal Deaths:	-
MARRIAGE		DIVORCE			
Marriages:	122	Divorces:	85		
Marriage Rate:	17.4	Divorce Rate:	12.1		



NATALITY BY RACE OF MOTHER

	To	tal	w	hite	ВІ	ack	Oth	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	191	13.6	182	13.1	1	*	8	48.5
	To	xal	w	hite	ВІ	ack	Ott	ner
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	36	188.5	32	175.8	-	-	4	•
Low Weight	16	83.8	16	87.9	-	-	-	-
Under 1.500 Grams	7	36.6	7	38.5	-	-	•	-
< 38 Weeks Gestation	30	157.1	29	159.3	-	•	1	•
Prenatal Care Began in 1st Trimester	128	670.2	124	681.3	-	-	4	•

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tot	al	Wh	ite	Bla	ck	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Infant Deaths	1	*	1	•	-	-	-	-	
Neonatal Deaths	1	•	1	*	-	-	-	-	
Postneonatal Deaths	-	-	-	-	-	•	-	-	
Perinatal Deaths	1	•	1	*	-	-	-	-	
Fetal Deaths	•	-	-	-	-	-	-	-	

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

Deaths	Total 135	All Race Maie 74		nale 1	Total 132	White Male 72	Female 60	Total -	Black Maie -	Female -	Total 3	Other Male 2	Female 1
						Ac	ge 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	•		-	4	1	-	5	10	13	24	77	-
White Male	i	_	-	-	1	1	-	5	5	7	15	37	-
White Female				-	2		-	-	4	6	8	40	-
Black Male			-	-	-	_	-	•	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-		-	1	-	-	-	-	-	1	•	-
Other Female	-	-	-	-	-	-	-	-	1	-	-	-	-

LEADING CAUSES OF DEATH

	Total		W	nite	Bla	ck	Children Ag	jes 1-19
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	. 135	961.7	132	952.4	-	-	4	•
Diseases of the Heart	39	277.8	39	281.4	-	-	-	
Malignant Neoplasms	28	199.5	28	202.0	•	-	•	
Cerebrovascular Diseases	4	•	4	*	-	-	-	
Accidents and Adverse Effects	15	106.9	14	101.0	-	-	2	•
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	5	•	5	•	-	-	-	•
Pneumonia and Influenza	7	49.9	7	50.5	-	-	-	•
Diabetes Mellitus	7	49.9	5	*	-	-	•	
Chronic Liver Disease and Cirrhosis	3	•	3	•	•	-	-	•
Homicide	-	-	-	-	-	-	-	
Suicide	2	*	2	•	-	-	1	•
Atherosclerosis	5	•	5	*	-	-	-	
AIDS	-	•	-	-	•	-	-	

Profile of Kent County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1992:	511,997	Total Live Births:	8,778	Total Deaths:	3,884
Rank Among Counties:	4	Teenage Mothers:	1,031	Infant Deaths:	67
Per Square Mile:	594.1	Low Weight Births:	602	Neonatal Deaths:	45
		First Births:	3,436	Postneonatal Deaths:	22
İ				Perinatal Deaths:	107
				Fetal Deaths:	72
MARRIAGE		DIVORCE			
Marriages:	4,777	Divorces:	2,094		
Marriage Rate:	18.7	Divorce Rate:	8.2		



NATALITY BY RACE OF MOTHER

	To	Total		/hite	RI	ack	Other		
ì	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Live Births	8,778	17.1	7,511	16.4	1,074	24.7	188	19.8	
	To	otal	w	/hite	ВІ	ack	Ott	her	
}	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio	
Teenage Mothers	1,031	117.5	694	92.4	322	299.8	15	79.8	
Low Weight	602	68.6	443	59.0	148	137.8	11	58.5	
Under 1,500 Grams	132	15.0	95	12.6	35	32.6	2	*	
< 38 Weeks Gestation	1,427	162.6	1,132	150.7	263	244.9	32	170.2	
Prenatal Care Began in									
1st Trimester	6,600	751.9	5,888	783.9	591	550.3	116	617.0	

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Bla	ck	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Infant Deaths	67	7.6	52	6.9	14	13.0	1	*	
Neonatal Deaths	45	5.1	38	5.1	7	6.5	-	-	
Postneonatal Deaths	22	2.5	14	1.9	7	6.5	1	•	
Perinatal Deaths	107	12.1	71	9.4	30	27.3	3	*	
Fetal Deaths	72	8.1	41	5.4	25	22.7	3	•	

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

		All Rac				White			Black			Other	
	Total	Male	Fei	male	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	3,884	1,921	1,9	963	3,574	1,750	1,824	278	157	121	31	13	18
						А	ge in Years						
li	<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	67	17	7	16	40	25	37	114	156	242	554	2,609	•
White Male	22	6	2	7	18	9	19	72	89	126	299	1,081	•
White Female	30	3	3	6	8	7	7	26	41	71	203	1,419	-
Black Male	5	3	1	2	12	6	8	7	14	29	26	44	-
Black Female	9	4	1	1	2	2	1	7	8	11	16	59	-
Other Male	1	-	-	-	-	1	2	1	-	3	4	1	-
Other Female	-	1	-	-	-	-	-	1	4	2	6	4	-

LEADING CAUSES OF DEATH

İ	To	tal	W	nite	Bla	ıck	Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	3,884	758.6	3,574	778.6	278	639.4	80	53.1
Diseases of the Heart	1,312	256.3	1,222	266.2	86	197.8	•	-
Malignant Neoplasms	897	175.2	836	182.1	51	117.3	8	5.3
Cerebrovascular Diseases	239	46.7	224	48.8	12	27.6	-	
Accidents and Adverse Effects	159	31.1	138	30.1	17	39.1	37	24.6
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	135	26.4	129	28.1	6	13.8	•	-
Pneumonia and Influenza	170	33.2	161	35.1	8	18.4	1	•
Diabetes Mellitus	95	18.6	84	18.3	11	25.3	-	
Chronic Liver Disease and Cirrhosis	29	5.7	27	5.9	1		-	
Homicide	29	5.7	9	2.0	19	43.7	11	7.3
Suicide	52	10.2	47	10.2	4		6	4.0
Atherosclerosis	23	4.5	23	5.0	-	-	-	
AIDS	35	6.8	26	5.7	8	18.4	-	

Note: Rate is per 100,000 estimated population in 1992 in specified group. Office of the State Registrar and Division of Health Statistics, MDPH Source:

Profile of Keweenaw County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1992:	1.706	Total Live Births:	16	Total Deaths:	28
Rank Among Counties:	83	Teenage Mothers:	•	Infant Deaths:	-
Per Square Mile:	3.1	Low Weight Births:	-	Neonatal Deaths:	-
Per oquare ivine.	•	First Births:	8	Postneonatal Deaths:	-
i				Perinatal Deaths:	-
				Fetal Deaths:	-
MARRIAGE		DIVORCE			
Marriages:	19	Divorces:	8		
Marriage Rate:	22.3	Divorce Rate:	9.4		



NATALITY BY RACE OF MOTHER

	To	Total _		hite	Bla	ack	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Live Births	16	9.4	16	9.5	•	-	-	-	
	To	tal	w	hite	Bi	ack	Oth	er	
•	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio	
Teenage Mothers	-	-	-	-	-	•	-	-	
Low Weight	•	-	-	-	-	-	•	-	
Under 1,500 Grams	•	-	-	-	•	-	-	-	
< 38 Weeks Gestation	3	*	3	•	•	-	-	-	
Prenatal Care Began in									
1st Trimester	13	812.5	13	812.5	-	-	-	•	

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Blac	ck	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 1994 in specified group.

MORTALITY

Deaths	Total 28	All Rac Male 19			Total 28	White Male 19	Female 9	Total -	Black Male -	Female -	Total -	Other Male	Female -
						A	ge 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	4	19	-
White Male	_	_				_	-	-	1	2	3	13	-
White Female		_	_	_	-	-	-	1	-	1	1	6	-
Black Male	_		_	_	_				-	-	-	-	-
Black Female		_	_	_	-		-		-	-	-	-	-
	-	•	_	_	-	_			_	-	-	-	-
Other Male	-	-	-	•	_	_	_	_		-		-	-
Other Female	•	-	•	-	•	•	_	_					

LEADING CAUSES OF DEATH

	Total		w	White		Black		jes 1-19
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	28	1,641.3	28	1,653.9	-	-	-	
Diseases of the Heart	12	703.4	12	708.8	- '	-	-	
Malignant Neoplasms	9	527.5	9	531.6	-	-	-	
Cerebrovascular Diseases	-	-	-	_	-	-	-	
Accidents and Adverse Effects	-		-	-	-	-	•	
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	1		1	*	•	-	-	
Pneumonia and Influenza	1	•	1	•	-	-	•	
Diabetes Mellitus	2	•	2	•	-	-	•	
Chronic Liver Disease and Cirrhosis	-	-	•	-	-	-	•	
Homicide	-	-	-	-	-	-	-	
Suicide	-	-	-	-	•	-	-	
Atherosclerosis	-	•	-	-	•	-	-	
AIDS	-	-	-	-	-	-	-	

Profile of Lake County

					
POPULATION		NATALITY		MORTALITY	
As of April 1, 1992:	9,029	Total Live Births:	114	Total Deaths:	141
Rank Among Counties:	77	Teenage Mothers:	22	Infant Deaths:	1
Per Square Mile:	15.9	Low Weight Births:	7	Neonatal Deaths:	1
'		First Births:	52	Postneonatal Deaths:	-
				Perinatal Deaths:	1
1				Fetal Deaths:	-
MARRIAGE		DIVORCE			
Marriages:	67	Divorces:	37		
Marriage Rate:	14.8	Divorce Rate:	8.2		



NATALITY BY RACE OF MOTHER

	To	Total		hite	Bi	ack	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Live Births	114	12.6	91	11.7	20	17.3	3	•	
	To	xtal	w	'hite	ВІ	ack	Ott	ner	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio	
Teenage Mothers	22	193.0	12	131.9	8	400.0	2	*	
Low Weight	7	61.4	6	65.9	1	•	-	-	
Under 1,500 Grams	1	*	1	•	•	-	•	-	
< 38 Weeks Gestation	18	157.9	13	142.9	5	•	•	-	
Prenatal Care Began in									
1st Trimester	78	684.2	65	714.3	12	600.0	1	*	

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tol	al	Wh	ite	Bla	ck	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Infant Deaths	1	*	1	*	-	-	-	•	
Neonatal Deaths	1	•	1	*	•	•	-	-	
Postneonatal Deaths	•	-	-	-	-	•	•	-	
Perinatal Deaths	1	•	1	*	-	-	-		
Fetal Deaths	-	-	-	-	-	-	-	-	

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

Deaths	Total 141	All Race Male 73	Fei	nale 68	Total 110	White Male 59	Female 51	Total 28	Black Male 13	Female 15	Total 3	Other Male 1	Female 2
						A	ge in Years						
1	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50 -5 9	60-69	70+	Unk
Total Deaths	1	2	-	2	1	•	1	2	9	10	25	88	-
White Male	1	1	-	1	1	-	-	2	4	5	11	33	•
White Female	-	-	-	1	-	-	1	•	4	3	10	32	-
Black Male	-		-		-		-	-		-	3	10	-
Black Female	-	1	-	-	-	-	-	•	-	1	1	12	•
Other Male	-	-	-	-	-	-	-	-	-	-	-	1	•
Other Female	-	-	-	-	-	•	-	-	1	1	-		-

LEADING CAUSES OF DEATH

	T	otal	W	hite	В	lack	Children Ag	jes 1-19
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	141	1,561.6	110	1,416.2	28	2,424.2	5	*
Diseases of the Heart	55	609.1	40	515.0	14	1,212.1	-	-
Malignant Neoplasms	35	387.6	27	347.6	7	606.1	-	-
Cerebrovascular Diseases	11	121.8	8	103.0	3	*	-	•
Accidents and Adverse Effects	5	•	4	*	1	*	4	•
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	6	66.5	6	77.2	-	-	-	-
Pneumonia and Influenza	1	*	1	•	-	-	-	-
Diabetes Mellitus	3	*	2	•	1	•	-	-
Chronic Liver Disease and Cirrhosis	1	•	-	•	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	3	•	2	•	1	*	-	-
Atherosclerosis	-	-	-	-	-	-	-	-
AIDS	-	-	-	-	-	-	•	-

660

16.8

Marriages:

Marriage Rate:

Profile of Lapeer County

POPULATION As of April 1, 1992: Rank Among Counties: Per Square Mile:	78,526 22 119.3	NATALITY Total Live Births: Teenage Mothers: Low Weight Births: First Births:	1,093 115 55 402	MORTALITY Total Deaths: Infant Deaths: Neonatal Deaths: Postneonatal Deaths: Perinatal Deaths: Fetal Deaths:	519 4 1 3 7 6
MARRIAGE		DIVORCE	244		

Divorces:

Divorce Rate:



NATALITY BY RACE OF MOTHER

	To	tal	w	hite	BI	ack	Oth	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	1,093	13.9	1,084	14.0	3	•	3	•
	To	otal	w	hite	В	ack	Oth	
1	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	115	105.2	114	105.2	1	*	-	-
Low Weight	55	50.3	55	50.7	•	•	-	-
Under 1,500 Grams	7	6.4	7	6.5	•	-	-	-
< 38 Weeks Gestation	168	153.7	168	155.0	-	•	•	-
Prenatal Care Began in 1st Trimester	900	823.4	893	823.8	2	•	2	•

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tot	al	Wh	ite	Bia	ck	Oth	er
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	4	•	3	•	-	-	1	*
Neonatal Deaths	1	•	1	*	-	-	-	•
Postneonatal Deaths	3	•	2	•	-	-	1	•
Perinatal Deaths	7	6.4	7	6.4	-	-	-	•
Fetal Deaths	6	5.5	6	5.5	-	-	•	•

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

Deaths	Total 519	All Race Male 263	Fer	nale 56	Total 515	White Male 261	Female 254	Total 1	Black Male 1	Female -	Total 3	Other Male 1	Female 2
						A	ge 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		5	9	3	13	36	49	77	321	•
White Male	2	_	2	_	3	5	3	12	21	26	46	141	-
White Female	1		-		2	4	-	1	14	23	29	180	-
Black Male		_	_	_	-	_	-	-	-	-	1	-	-
Black Female			_	_	-		-	-	-	-	-	•	-
Other Male	1				-	_	_	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	-	-	1	•	1	-	-

LEADING CAUSES OF DEATH

	To	tai	W	nite	Bia	ck	Children Ag	jes 1-19
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	519	660.9	515	666.5	1	•	7	28.9
Diseases of the Heart	171	217.8	171	221.3	-	-	1	•
Malignant Neoplasms	125	159.2	122	157.9	1	•	-	-
Cerebrovascular Diseases	39	49.7	39	50.5	-	•	•	-
Accidents and Adverse Effects	33	42.0	33	42.7	-	-	4	*
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	22	28.0	22	28.5	-	-	•	•
Pneumonia and Influenza	16	20.4	16	20.7	-	•	-	-
Diabetes Mellitus	11	14.0	11	14.2	-	•	-	•
Chronic Liver Disease and Cirrhosis	4	•	4	*	-	-	-	-
Homicide	1	*	1	•	-	•	•	•
Suicide	13	16.6	13	16.8	•	-	1	•
Atherosclerosis	8	10.2	8	10.4	-	•	-	•
AIDS	-	-	•	-	-	-	-	-
ļ								

Profile of Leelanau County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1992:	17,292	Total Live Births:	211	Total Deaths:	159
Rank Among Counties:	65	Teenage Mothers:	15	Infant Deaths:	1
Per Square Mile:	50.7	Low Weight Births:	10	Neonatal Deaths:	1
		First Births:	78	Postneonatal Deaths:	-
				Perinatal Deaths:	1
				Fetal Deaths:	•
MARRIAGE		DIVORCE			
Marriages:	120	Divorces:	87		
Marriage Rate:	13.9	Divorce Rate:	10.1		



NATALITY BY RACE OF MOTHER

	To	xtal	W	'hite	Bi	ack	Ott	ner
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	211	12.2	199	11.9	-	•	10	17.2
	To	otal	w	hite	BI	ack	Oth	er
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	15	71.1	12	60.3	-	-	3	•
Low Weight	10	47.4	10	50.3		-	-	
Under 1,500 Grams	3	*	3	•		-		-
< 38 Weeks Gestation	31	146.9	28	140.7	-	-	2	*
Prenatal Care Began in							_	
1st Trimester	166	786.7	157	788.9		-	8	800.0

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tot	Total		ite	Bla	ck	Other		
	Number	Number Rate		Rate	Number	Rate	Number	Rate	
Infant Deaths	1	•	1	*	•	-	-	-	
Neonatal Deaths	1	•	1	*	-	-	-	-	
Postneonatal Deaths	•	•		•	•	-	-	-	
Perinatal Deaths	1	•	1	*		-	-	-	
Fetal Deaths	•	-	-	-	•	-	-	•	

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

		All Race	es			White			Black			Other	
	Total	Male	Fer	male	Total	Maie	Female	Total	Male	Female	Total	Male	Female
Deaths	159	78	8	31	156	77	79	-	•	-	3	1	2
						A	ge 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	1	-	7	6	10	24	108	- 1
White Male	1	-	-	1	-	1	-	4	2	6	12	50	-
White Female	-	-	-	-	-	-	-	3	4	4	12	56	-
Black Male	-	•	-	-		-	-		-	-	•	-	-
Black Female	-	-	-	-	-		-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	•	-	•	-	1	-
Other Female	-	-	-	-	1	-	-	-	•	-	-	1	-

LEADING CAUSES OF DEATH

	To	otal	WI	nite	Bla	ck	Children Ag	es 1-19
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	159	919.5	156	934.7	•	-	2	•
Diseases of the Heart	46	266.0	46	275.6	-	-	-	-
Malignant Neoplasms	38	219.8	38	227.7	-	-	-	-
Cerebrovascular Diseases	9	52.0	9	53.9	-	-	-	-
Accidents and Adverse Effects	9	52.0	7	41.9	-	-	2	•
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	8	46.3	8	47.9	-	-	-	-
Pneumonia and Influenza	1	•	1	*	-	•	-	-
Diabetes Mellitus	2		2	•	-	-	-	-
Chronic Liver Disease and Cirrhosis	2	*	2	*	-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	-	•	-	-	-	-	-	-
Atherosclerosis	3	*	3	•	-	•	•	-
AIDS	2	*	2	*	•	-	•	-
1								

Note: Rate is per 100,000 estimated population in 1992 in specified group. Office of the State Registrar and Division of Health Statistics, MDPH

Profile of Lenawee County

POPULATION As of April 1, 1992: Rank Among Counties: Per Square Mile:	94,132 20 125.1	NATALITY Total Live Births: Teenage Mothers: Low Weight Births: First Births:	1,168 155 61 445	MORTALITY Total Deaths: Infant Deaths: Neonatal Deaths: Postneonatal Deaths: Perinatal Deaths:	741 5 3 2 14
MARRIAGE Marriages: Marriage Rate:	648 13.8	DIVORCE Divorces: Divorce Rate:	429 9.1	Fetal Deaths:	11



NATALITY BY RACE OF MOTHER

	To	Total		White		ack	Other		
Live Births	Number 1,168	Rate 12.4	Number 1,143	Rate 12.5	Number 11	Rate 6.6	Number 6	Rate 6.4	
]	Total		w	hite	Black		Other		
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio	
Teenage Mothers	155	132.7	152	133.0	2	•	1	*	
Low Weight	61	52.2	60	52.5	-	-	-	-	
Under 1,500 Grams	10	8.6	10	8.7	-	-	-	-	
< 38 Weeks Gestation	192	164.4	185	161.9	3	•	3	•	
Prenatal Care Began in 1st Trimester	949	812.5	935	818.0	9	818.2	4	*	

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tot	al	Wh	ite	Bla	ck	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Infant Deaths	5	•	5	•	-	-	•	-	
Neonatal Deaths	3	*	3	•	-	-	-	-	
Postneonatal Deaths	2	*	2	•	-	-	-	-	
Perinatal Deaths	14	11.9	12	10.4	1	•	1	•	
Fetal Deaths	11	9.3	9	7.8	1	•	1	•	

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

Deaths	Total 741	All Race Male 324	Fer	nale 17	Total 730	White Male 320	Female 410	Total 6	Black Male 4	Female 2	Total 5	Other Male -	Female 5
						A	ge 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	2	2	3	6	7	1	19	34	51	117	494	-
White Male	3	1	2	2	4	7	-	11	20	29	62	179	-
White Female	2	i i	-	1	2	-	1	7	14	20	52	310	-
Black Male	-	•	_		-				-	1	-	3	-
Black Female	_	-	_	_	_	_	_	1				1	_
	•	-	-	_			_	•	_	_	_		
Other Maie	•	-	-	•	-	_	-	_	_	1	3	1	_
Other Female	-	-	-	•	-	-	-	•	-	'	3	•	_

LEADING CAUSES OF DEATH

	. To	tal	Wh	ite	Bla	ick	Children Ag	jes 1-19
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	741	787.2	730	797.4	6	362.5	13	46.1
Diseases of the Heart	248	263.5	245	267.6	3	•	-	-
Malignant Neoplasms	160	170.0	156	170.4	2	•	1	•
Cerebrovascular Diseases	65	69.1	64	69.9	-	-	-	-
Accidents and Adverse Effects	34	36.1	34	37.1	-	-	8	28.4
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	25	26.6	25	27.3	-	-	-	-
Pneumonia and Influenza	30	31.9	30	32.8	-	-	-	
Diabetes Mellitus	22	23.4	22	24.0	-	-	-	-
Chronic Liver Disease and Cirrhosis	5	*	5	•	-	-	-	
Homicide	1	*	1	•	-	-	-	
Suicide	8	8.5	8	8.7	-	-	-	
Atherosclerosis	26	27.6	26	28.4	-	-	-	
AIDS	6	6.4	6	6.6	-	-	1	•

Profile of Livingston County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1992:	122,658	Total Live Births:	1,728	Total Deaths:	791
Rank Among Counties:	17	Teenage Mothers:	84	Infant Deaths:	6
Per Square Mile:	213.6	Low Weight Births:	97	Neonatal Deaths:	3
• • • • • • • • • • • • • • • • • • • •		First Births:	698	Postneonatal Deaths:	3
				Perinatal Deaths:	10
				Fetal Deaths:	8
MARRIAGE		DIVORCE			
Marriages:	1.010	Divorces:	561		
Мапіage Rate:	16.5	Divorce Rate:	9.1		



NATALITY BY RACE OF MOTHER

	•	otal	384	16.14.0	61		Other		
	10	хaı	White		Black		Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Live Births	1,728	14.1	1,668	13.8	4	•	25	18.8	
	To	xtal	w	hite	ВІ	ack	Ott	ner	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio	
Teenage Mothers	84	48.6	82	49.2	-	-	1	*	
Low Weight	97	56.1	89	53.4	-	-	5	•	
Under 1,500 Grams	16	9.3	15	9.0	-	-	1	•	
< 38 Weeks Gestation	312	180.6	302	181.1	•	-	5	*	
Prenatal Care Began in									
1st Trimester	1,454	841.4	1,416	848.9	4	•	19	760.0	

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	6	3.5	5	*	-	-	1	•
Neonatal Deaths	3	*	2	*	•	-	1	
Postneonatal Deaths	3	*	3	*	-	-	-	-
Perinatal Deaths	10	5.8	8	4.8	•	-	1	
Fetal Deaths	8	4.6	7	4.2	-	-	-	•

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

		All Rad	es			White			Black			Other	
	Total	Male	Fen	nale	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	791	406	3	35	781	400	381	4	2	2	5	3	2
						A	ge 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	1	3	2	11	8	23	49	70	135	482	-
White Male	4	1	1	2	-	9	7	16	33	52	76	199	•
White Female	1			1	2	2	1	6	16	16	57	279	-
Black Male	-	-	-				•	1	-	-	-	1	-
Black Female	-	-	- "	•	-	-	-	-		1	-	1	-
Other Male	-	-	•	-	-	-	-	-		1	1	1	-
Other Female	1	•	-	-	-	-	-	-	-	-	•	1	-

LEADING CAUSES OF DEATH

	Total		W	nite	Bla	ck	Children Ag	es 1-19
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	791	644.9	781	647.7	4	*	7	19.2
Diseases of the Heart	285	232.4	285	236.3	•	-	-	-
Malignant Neoplasms	192	156.5	189	156.7	1	•	1	•
Cerebrovascular Diseases	42	34.2	42	34.8	-	-	-	-
Accidents and Adverse Effects	39	31.8	38	31.5	1		2	•
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	44	35.9	43	35.7	1	*	-	•
Pneumonia and Influenza	15	12.2	14	11.6	1		-	•
Diabetes Mellitus	23	18.8	23	19.1	-	-	-	-
Chronic Liver Disease and Cirrhosis	6	4.9	6	5.0	-	-	-	
Homicide	1	*	1		-	-	_	-
Suicide	10	8.2	10	8.3	-	•	-	•
Atherosclerosis	5	*	5		-	-	-	
AIDS	1	•	1	•	-	-	-	-

Note: Rate is per 100,000 estimated population in 1992 in specified group. Office of the State Registrar and Division of Health Statistics, MDPH Source:

Profile of Luce County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1992:	5.604	Total Live Births:	68	Total Deaths:	79
Rank Among Counties:	82	Teenage Mothers:	13	Infant Deaths:	-
Per Square Mile:	6.2	Low Weight Births:	7	Neonatal Deaths:	-
1 ci oquare iline.		First Births:	21	Postneonatal Deaths:	-
		7		Perinatal Deaths:	2
				Fetal Deaths:	2
MARRIAGE		DIVORCE			
Marriages:	39	Divorces:	27		
Marriage Rate:	13.9	Divorce Rate:	9.6		



NATALITY BY RACE OF MOTHER

	To	tal	w	hite	Bi	ack	Other		
Live Births	Number 68	Rate 12.1	Number 65	Rate 12.4	Number -	Rate -	Number 3	Rate	
	To	tal	w	hite	Bl	ack	Oth	er	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio	
Teenage Mothers	13	191.2	13	200.0	•	-	-	-	
Low Weight	7	102.9	7	107.7	-	-	-	-	
Under 1,500 Grams	1	•	1	*	-	•	-	-	
< 38 Weeks Gestation Prenatal Care Began in	11	161.8	11	169.2	-	•	•	-	
1st Trimester	57	838.2	54	830.8	-	•	3	•	

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tot	ai	Whi	ite	Bla	ck	Oth	er
	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 1994 in specified group.

MORTALITY

Deaths	Total 79	All Race Male 38	Fei	nale 1	Total 79	White Male 38	Female 41	Total -	Black Male	Female -	Total -	Other Male -	Female -
						A	ge 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	2	11	63	-
	-	-	_		_	_	_	1	2	2	8	25	-
White Male	-	•	-	•	-			•	-	-	3	38	
White Female	-	-	-	-	-	-	-	-	_	_	•	-	_
Black Male	-	-	-	-	-	-	-	•	-	•	•	_	-
Black Female	-	-	-	-	-	-	-	-	•	-	-	-	•
Other Male	-	-	-	-	-	-	-	-	•	-	-	-	-
Other Female	-	-	-	-	-	-	•	-	-	-	•	•	•

LEADING CAUSES OF DEATH

	T	otal	w	'hite	Bla	ck	Children Ag	
	Number	Rate	Number	Rate	Number	Rate	Number	Rat
All Causes	79	1,410.0	79	1,509.1	•	•	-	
Diseases of the Heart	24	428.3	24	458.5	-	-	•	
Malignant Neoplasms	20	357.0	20	382.0	-	-	-	
Cerebrovascular Diseases	3		3	*	-	-	-	
Accidents and Adverse Effects	1	•	1	•	-	-	-	
Chronic Obstructive Pulmonary Diseases and Allied Conditions	4		4		-	-		
Pneumonia and Influenza	5	*	5	*	-	-	-	
Diabetes Mellitus	3	•	3	•	-	-	-	
Chronic Liver Disease and Cirrhosis	2	*	2	*	-	-	-	
Homicide	-	-	-	-	-	-	-	
Suicide	-	-	-	-	-	-	-	
Atheroscierosis	1	*	1	*	-	-	-	
AIDS	1	•	1	•	-	-	-	

Profile of Mackinac County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1992:	10,752	Total Live Births:	137	Total Deaths:	132
Rank Among Counties:	73	Teenage Mothers:	15	Infant Deaths:	-
Per Square Mile:	10.5	Low Weight Births:	2	Neonatal Deaths:	-
•		First Births:	56	Postneonatal Deaths:	-
				Perinatal Deaths:	_
				Fetal Deaths:	-
MARRIAGE		DIVORCE			
Marriages:	185	Divorces:	51		
Marriage Rate:	34.4	Divorce Rate:	9.5		



NATALITY BY RACE OF MOTHER

	To	Total		hite	В	ack	Other		
1	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Live Births	137	12.7	108	12.2	•	•	28	14.9	
	To	xtal	w	hite	BI	ack	Oti	ner	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio	
Teenage Mothers	15	109.5	6	55.6	-	-	8	285.7	
Low Weight	2	*	•	-	-	•	2	*	
Under 1,500 Grams	-	-	-	-	-	-	-	-	
< 38 Weeks Gestation	11	80.3	8	74.1	-	-	3	*	
Prenatal Care Began in									
1st Trimester	107	781.0	89	824.1	•	-	17	607.1	

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tot	tal	Whi	ite	Bla	ck	Oth	er
	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 1994 in specified group.

MORTALITY

l I													
Deaths	Total 132	All Race Male 85	Fer	nale 17	Total 116	White Male 74	Female 42	Total -	Biack Male	Female -	Total 16	Other Male 11	Female 5
						A	ge 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	-	-	7	3	28	92	-
White Male		-	-	-	_	1	-	•	5	1	16	51	-
White Female		-	-	-	1		-	-	-	1	6	34	-
Black Male	-	-	-		_	-	-	-	-	-	-	-	•
Black Female	-	-	-	-	-	-	•	-	-	-	-	-	•
Other Male	-	-	-	-	-	-	•	-	1	1	4	5	•
Other Female	•	-	-	-	-	-	•	•	1	-	2	2	-

LEADING CAUSES OF DEATH

	T	otal	W	hite	Bla	ck	Children Ag	ges 1-19
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	132	1,227.7	116	1,309.1	•	-	1	•
Diseases of the Heart	43	399.9	38	428.8	-	•	-	-
Malignant Neoplasms	45	418.5	42	474.0	-	-	1	•
Cerebrovascular Diseases	11	102.3	10	112.9	-	•	-	•
Accidents and Adverse Effects	4	•	3	•	-		•	
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	4	*	2	*			•	
Pneumonia and Influenza	4	•	3	*	•		•	
Diabetes Mellitus	4	•	3	*	-	-	-	
Chronic Liver Disease and Cirrhosis	3	*	1	*	-	-	-	
Homicide	-	-	-	-	-		•	
Suicide	1	*	1	•			-	
Atherosclerosis	-	-	-	-	•	-	-	
AIDS		-		-		-	-	

6,045 16.6

Marriages: Marriage Rate:

POPULATION As of April 1, 1992: Rank Among Counties: Per Square Mile:	728,220 3 1,509.5	NATALITY Total Live Births: Teenage Mothers: Low Weight Births: First Births:	9,806 615 618 3,990	MORTALITY Total Deaths: Infant Deaths: Neonatal Deaths: Postneonatal Deaths: Perinatal Deaths:	6,254 59 40 19 89
MARRIAGE		DIVORCE	2.040	Fetal Deaths:	56

Divorces:

Divorce Rate:



NATALITY BY RACE OF MOTHER

	To	tal	w	'hite	В	ack	Oth	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	9,806	13.5	9,257	13.1	238	22.0	229	18.1
	To	xtal	w	hite	Bi	ack	Oti	ner
j	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	615	62.7	548	59.2	46	193.3	18	78.6
Low Weight	618	63.0	562	60.7	31	130.3	18	78.6
Under 1,500 Grams	125	12.7	114	12.3	9	37.8	1	*
< 38 Weeks Gestation	1,565	159.6	1,455	157.2	65	273.1	29	126.6
Prenatal Care Began in 1st Trimester	8,828	900.3	8,409	908.4	162	680.7	190	829.7

3,049

8.4

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tot	al	Whi	ite	Bla	ck	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Infant Deaths	59	6.0	53	5.7	5	*	1	•	
Neonatal Deaths	40	4.1	35	3.8	4	*	1	•	
Postneonatal Deaths	19	1.9	18	1.9	1	•	-	-	
Perinatal Deaths	89	9.0	79	8.5	7	29.0	3	•	
Fetal Deaths	56	5.7	51	5.5	3	•	2	•	

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

Deaths	Totai 6,254	All Race Male 3,070	Fer	nale 183	Total 6,143	White Male 3,016	Female 3,126	Total 72	Black Male 34	Female 38	Total 35	Other Male 18	Female 17
İ						A	ge 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	59	14	4	8	25	32	37	150	248	467	1,026	4,184	-
White Male	29	9	1	8	13	25	27	106	165	254	590	1,789	-
White Female	23	4	3		11	6	10	39	73	198	413	2,346	-
	23	7		_	1	1		3	2	5	5	16	-
Black Male	<u> </u>	-	_	_			_	2	5	5	6	16	_
Black Female	4	-	-	-	-	_	_	-	2	1	7	8	_
Other Male	-		•	•	-	-			_	3	5	7	
Other Female	1	1	-	-	-	-	-	•	•	3	3	•	_

LEADING CAUSES OF DEATH

	Totai		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	6.254	858.8	6,143	871.6	72	667.0	51	28.7
Diseases of the Heart	2,195	301.4	2,161	306.6	21	194.6	-	-
Malignant Neoplasms	1,644	225.8	1.619	229.7	16	148.2	7	3.9
Cerebrovascular Diseases	448	61.5	439	62.3	8	74.1	-	•
Accidents and Adverse Effects	158	21.7	158	22.4	-	-	22	12.4
Chronic Obstructive Pulmonary Diseases					_			
and Allied Conditions	283	38.9	277	39.3	2	•	•	:
Pneumonia and Influenza	203	27.9	200	28.4	2	•	1	•
Diabetes Mellitus	148	20.3	145	20.6	2	•	-	-
Chronic Liver Disease and Cirrhosis	86	11.8	84	11.9	2	•	•	-
Homicide	27	3.7	26	3.7	1		5	*
Suicide	65	8.9	64	9.1	-	-	4	•
Atheroscierosis	89	12.2	88	12.5	-	-	-	-
Alds	36	4.9	34	4.8	2	*	1	•

Profile of Manistee County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1992:	21,925	Total Live Births:	257	Total Deaths:	324
Rank Among Counties:	57	Teenage Mothers:	37	Infant Deaths:	1
Per Square Mile:	40.4	Low Weight Births:	16	Neonatal Deaths:	1
1		First Births:	103	Postneonatal Deaths:	-
				Perinatal Deaths:	3
				Fetal Deaths:	2
MARRIAGE		DIVORCE			
Marriages:	185	Divorces:	101		
Marriage Rate:	16.9	Divorce Rate:	9.2		



NATALITY BY RACE OF MOTHER

	Total		White		ВІ	ack	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Live Births	257	11.7	247	11.4	1	•	9	34.0	
	To	otal	w	hite	ВІ	ack	Oti	her	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio	
Teenage Mothers	37	144.0	36	145.7	-	-	1	*	
Low Weight	16	62.3	16	64.8	•	-	-	-	
Under 1,500 Grams	1	•	1	•	•	•	-	-	
< 38 Weeks Gestation	35	136.2	35	141.7	-	-	•	-	
Prenatal Care Began in									
1st Trimester	203	789.9	196	793.5	1	•	6	666.7	

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

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

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

	Total	All Rac Male	Fer	nale	Total	White Male	Female	Total	Black Male	Female	Total	Other Male	Female
Deaths	324	167	1:	57	318	163	155	1	-	1	5	4	1
						_							
I ŧ						A	ge 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	4	1	8	8	24	46	231	-
White Male	1	-	-	-	1	1	-	6	3	14	27	110	-
White Female	-	-	-	-	-	3	-	2	5	9	17	119	
Black Male	-	-	-	-	-	-	-	-	-	-	-		
Black Female	-	-	-	-	-	•	-	-	-	-	-	1	-
Other Male	-	-	-	-	-		1	-	-	1	1	1	-
Other Female	-	-	-	-	-	-	-	-	-	-	1	-	-

LEADING CAUSES OF DEATH

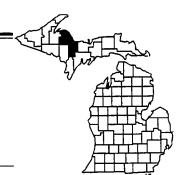
	T	otal	w	hite	Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	324	1,477.8	318	1,472.5	1	*	1	•
Diseases of the Heart	123	561.0	120	555.7	-	-	-	-
Malignant Neoplasms	82	374.0	81	375.1	-	-	-	-
Cerebrovascular Diseases	29	132.3	28	129.7	1	*	•	-
Accidents and Adverse Effects	9	41.0	9	41.7	•	-	1	
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	12	54.7	12	55.6	•	-	-	
Pneumonia and Influenza	5	*	5	*	-	-	-	
Diabetes Mellitus	10	45.6	10	46.3	-	-	-	
Chronic Liver Disease and Cirrhosis	6	27.4	6	27.8	-	-	-	•
Homicide	-	-	-	_	-	-	-	
Suicide	8	36.5	7	32.4	-	-	-	-
Atherosclerosis	10	45.6	10	46.3	-	-	-	
AIDS	•	•	-	-	•	-	-	-

641 17.9

Marriages: Marriage Rate:

71,428	NATALITY Total Live Births:	852	MORTALITY Total Deaths:	589
25	Teenage Mothers:	68	Infant Deaths:	7
39.2		51	Neonatal Deaths:	6
	First Births:	355	Postneonatal Deaths:	1
	• • • • • • • • • • • • • • • • • • • •		Perinatal Deaths:	9
			Fetal Deaths:	3
	DIVORCE			
	•	71,428 Total Live Births: 25 Teenage Mothers: 39.2 Low Weight Births: First Births:	71,428 Total Live Births: 852 25 Teenage Mothers: 68 39.2 Low Weight Births: 51 First Births: 355	71,428 Total Live Births: 852 Total Deaths: 25 Teenage Mothers: 68 Infant Deaths: 39.2 Low Weight Births: 51 Neonatal Deaths: First Births: 355 Postneonatal Deaths: Perinatal Deaths: Fetal Deaths:

Divorces: Divorce Rate:



NATALITY BY RACE OF MOTHER

	To	Total		'hite	Bi	ack	Other		
İ	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Live Births	852	11.9	798	11.6	10	8.6	42	25.8	
	To	tal	w	hite	ВІ	ack	Ott	ner	
1	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio	
Teenage Mothers	68	79.8	58	72.7	1	*	9	214.3	
Low Weight	51	59.9	45	56.4	2	*	4	*	
Under 1,500 Grams	8	9.4	7	8.8	-	-	1	•	
< 38 Weeks Gestation	136	159.6	126	157.9	2	*	7	166.7	
Prenatal Care Began in 1st Trimester	728	854.5	685	858.4	8	800.0	33	785.7	

353 9.9

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tot	al	Whi	ite	Bla	ck	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Infant Deaths	7	8.2	7	8.8	-	-	-	-	
Neonatal Deaths	6	7.0	6	7.5	-	-	-	•	
Postneonatal Deaths	1	*	1	•	-	-	-	-	
Perinatal Deaths	9	10.5	9	11.2	•	•	-	•	
Fetal Deaths	3	*	3	•	-	-	-	•	

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

Deaths	Total 589	All Race Male 299	Fer	nale 90	Total 585	White Male 297	Female 288	Total -	Black Male -	Female -	Total 4	Other Male 2	Female 2
						A	ge in Years						
ł	<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	-	6	6	4	10	11	43	73	428	-
White Male	4		1		4	5	4	5	7	29	45	193	•
White Female	3	-	-		2	1	-	5	4	14	27	232	-
Black Male	-	-	-	-	-	-	-	•	-	-	-	-	•
Black Female		-	-	-	-	-	-	-	-	-	-	-	-
Other Male	•	-	-	-	-	-	-	-	-	-	-	2	-
Other Female	-	-	-	-	-	-	-	•	•	•	1	1	•

LEADING CAUSES OF DEATH

	To	tal	Wi	nite	Bla	ck	Children Ag	es 1-19
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	589	824.6	585	852.4	•	-	7	34.2
Diseases of the Heart	175	245.0	175	255.0	-	-	•	
Malignant Neoplasms	127	177.8	127	185.0	-	-	2	•
Cerebrovascular Diseases	56	78.4	56	81.6	-	-	-	
Accidents and Adverse Effects	25	35.0	25	36.4	-	-	4	•
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	19	26.6	18	26.2	-	-	-	
Pneumonia and Influenza	24	33.6	24	35.0	-	-	-	
Diabetes Mellitus	20	28.0	20	29.1	-	-	•	
Chronic Liver Disease and Cirrhosis	8	11.2	8	11.7	-	-	•	
Homicide	-	-	•	-	-	•	•	
Suicide	8	11.2	8	11.7	-	-	-	
Atherosclerosis	2	*	2	*	•	-	-	
AIDS	1	•	1	•	-	-	-	

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

Profile of Mason County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1992:	26,420	Total Live Births:	320	Total Deaths:	282
Rank Among Counties:	50	Teenage Mothers:	36	Infant Deaths:	-
Per Square Mile:	53.4	Low Weight Births:	15	Neonatal Deaths:	-
		First Births:	112	Postneonatal Deaths:	-
				Perinatal Deaths:	2
				Fetal Deaths:	2
MARRIAGE		DIVORCE			
Marriages:	234	Divorces:	126		
Marriage Rate:	17.7	Divorce Rate:	9.5		



NATALITY BY RACE OF MOTHER

	To	Total		White		ack	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Live Births	320	12.1	300	11.6	1	•	18	58.8	
	To	otal	w	'hite	81	ack	Ott	ner	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio	
Teenage Mothers	36	112.5	34	113.3		-	2	*	
Low Weight	15	46.9	13	43.3	-	-	2	*	
Under 1,500 Grams	1			-	-	-	1	*	
< 38 Weeks Gestation	49	153.1	46	153.3	-	-	3	*	
Prenatal Care Began in 1st Trimester	256	800.0	237	790.0	1	•	17	944.4	

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tot	al	Wh	ite	Bla	ck	Oth	er
	Number	Number Rate		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 1994 in specified group.

MORTALITY

Deaths	Total 282	All Rac Male 142	Fer	nale 40	Total 280	White Male 140	Female 140	Total 1	Black Male 1	Female -	Total 1	Other Male 1	Female -
						A	ge 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	-	-	-	7	9	13	47	203	-
White Male		-	-	2	-	-	-	3	7	8	28	92	-
White Female		-	1	-	-	-	-	3	2	5	19	110	-
Black Male	-	-	-	-	-		-	1	-	-	-	-	-
Black Female		-	-		-	-	-	•	-	-	-	-	-
Other Male		-	-	-	•	-	-	-	-	-	-	1	-
Other Female	-	-	-	-	-	-	-	-	-	-	-	-	•

LEADING CAUSES OF DEATH

	T	otal	W	/hite	Bia	ck	Children Ag	es 1-19
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	282	1,067.4	280	1,079.3	1	*	3	•
Diseases of the Heart	93	352.0	93	358.5	-	-	-	-
Malignant Neoplasms	68	257.4	67	258.3	-	-	-	-
Cerebrovascular Diseases	18	68.1	18	69.4	•	-	•	-
Accidents and Adverse Effects	11	41.6	11	42.4	•	-	1	•
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	18	68.1	18	69.4	-	-	-	-
Pneumonia and Influenza	13	49.2	13	50.1	-	•	-	-
Diabetes Mellitus	10	37.9	10	38.5	•	•	•	-
Chronic Liver Disease and Cirrhosis	2		2	•	•	•	•	-
Homicide	1	*	1	•	•	-	1	•
Suicide	4	*	3	•	` 1	*	1	•
Atherosclerosis	2	*	2	•	-	-	•	•
AIDS	1	*	1	•	•	-	-	-

286

14.8

Marriages: Marriage Rate:

Profile of Mecosta County

POPULATION	20.552	NATALITY	401	MORTALITY Total Deaths:	295
As of April 1, 1992:	38,553	Total Live Births:			
Rank Among Counties:	41	Teenage Mothers:	65	Infant Deaths:	3
Per Square Mile:	68.8	Low Weight Births:	22	Neonatal Deaths:	3
, or oquare rame.		First Births:	156	Postneonatal Deaths:	-
				Perinatal Deaths:	5
				Fetal Deaths:	2
MARRIAGE		DIVORCE			

Divorces:

Divorce Rate:



NATALITY BY RACE OF MOTHER

	To	otal	w	hite	BI	ack	Other		
[Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Live Births	401	10.4	378	10.2	14	13.3	9	17.8	
	To	xtai	w	hite	ВІ	ack	Oti	ner	
1	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio	
Teenage Mothers	65	162.1	58	153.4	4	•	3	*	
Low Weight	22	54.9	22	58.2	-	•	-	-	
Under 1,500 Grams	6	15.0	6	15.9	•	-	-	-	
< 38 Weeks Gestation	57	142.1	54	142.9	2	•	1	*	
Prenatal Care Began in 1st Trimester	285	710.7	274	724.9	7	500.0	4	•,	

128

6.6

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tot	al	Wh	ite	Bla	ck	Oth	ег
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	3	. •	2	*	-	-	1	•
Neonatal Deaths	3	*	2	•	-	-	1	•
Postneonatal Deaths	-	-	-	-	-	-	-	•
Perinatal Deaths	5	•	3	•	-	-	2	•
Fetal Deaths	2	*	1	*	-	-	1	•

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

Deaths	Total 295	All Race Male 167	Fer	nale 28	Total 289	White Male 163	Female 126	Total -	Black Male	Female -	Total 5	Other Male 3	Female 2
						A	ge in Years						
ļ	<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	2	2	3	2	4	2	4	12	24	45	192	-
White Male	1	1	1	3	2	3	2	1	9	15	31	94	-
White Female	1	1	1	-	-	1	-	3	3	9	12	95	-
Black Male		-	-	-	-	-	-	-	-	-	-	-	•
Black Female	-	-	-	-		-	-	-	-	-	-	-	-
Other Male	1	-	-	-	-	-	-	-	-	-	. 2	-	-
Other Female	-	•	•	-	-	-	-	-	-	-	•	2	-

LEADING CAUSES OF DEATH

	To	tal	W	nite	Bla	ck	Children Ag	jes 1-19
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	295	765.2	289	781.2	-	-	9	77.5
Diseases of the Heart	94	243.8	92	248.7	-	-	-	-
Malignant Neoplasms	75	194.5	74	200.0	-	-	•	-
Cerebrovascular Diseases	· 17	44.1	16	43.3	-	-	-	-
Accidents and Adverse Effects	19	49.3	19	51.4	•	-	7	60.3
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	11	28.5	11	29.7	-	-	•	-
Pneumonia and Influenza	14	36.3	14	37.8	•	•	-	•
Diabetes Mellitus	8	20.8	8	21.6	-	-	-	-
Chronic Liver Disease and Cirrhosis	4	•	4	•	-	-	-	-
Homicide	-	-	-	-	-	•	•	-
Suicide	6	15.6	6	16.2	-	-	2	•
Atherosclerosis	1		1	•	-	-	-	-
AIDS	•	-	-	-	•	-	-	•

Profile of Menominee County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1992:	24,593	Total Live Births:	270	Total Deaths:	280
Rank Among Counties:	53	Teenage Mothers:	30	Infant Deaths:	3
Per Square Mile:	23.5	Low Weight Births:	15	Neonatal Deaths:	2
•		First Births:	98	Postneonatal Deaths:	1
i				Perinatal Deaths:	1
				Fetal Deaths:	-
MARRIAGE		DIVORCE			
Marriages:	236	Divorces:	85		
Marriage Rate:	19.2	Divorce Rate:	6.9		



NATALITY BY RACE OF MOTHER

į	To	Total	w	'hite	BI	ack	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Live Births	270	11.0	260	10.8	-	•	10	21.1	
	To	xtal	w	'hite	ВІ	ack	Oti	her	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio	
Teenage Mothers	30	111.1	27	103.8	•	-	3	*	
Low Weight	15	55.6	15	57.7	•	-	-	-	
Under 1,500 Grams	3	*	3	•	-	-	-		
< 38 Weeks Gestation	45	166.7	44	169.2	•	-	1	*	
Prenatal Care Began in									
1st Trimester	193	714.8	190	730.8			3	*	

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tot	al	Wh	ite	Bla	ck	Oth	er
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	3	•	3	*	-	-	•	-
Neonatal Deaths	2	•	2	*	•	-	-	-
Postneonatal Deaths	1	*	1	*	-	-		-
Perinatal Deaths	1	*	1	*	-	-	-	•
Fetal Deaths	-	-	-	-	-	-	-	-

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

		All Rad	:es			White			Black			Other	
	Total	Male	Fer	nale	Total	Male	Female	Total	Male	Female	Total	Maie	Female
Deaths	280	162	1	18	272	155	117	1	1	-	6	5	1
						A	ge 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	-	-	-	5	4	2	2	10	17	46	191	-
White Male	-	-	-	-	3	_	2	2	7	11	34	96	
White Female	3	-	-	-	1	2	-	-	2	4	11	94	-
Black Male	•	-	-	-	-	-	-	-	-	1	-	-	
Black Female	-	-	-	-	-	-	-	-	-	_	•	•	-
Other Male	-	-	-	•	1	2	-	-	1	-	-	1	-
Other Female	-	-	-	-	-	-	-	-	-	-	1	-	-

LEADING CAUSES OF DEATH

	Total		W	hite	Bla	ck	Children Ag	es 1-19
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	280	1,138.5	272	1,128.1	1	•	5	•
Diseases of the Heart	90	366.0	89	369.1	-	-	-	-
Malignant Neoplasms	64	260.2	63	261.3	-	-	-	
Cerebrovascular Diseases	23	93.5	23	95.4	-	-	•	-
Accidents and Adverse Effects	19	77.3	14	58.1	1	*	4	*
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	13	52.9	13	53.9	-	-	•	
Pneumonia and Influenza	13	52.9	13	53.9		-	-	-
Diabetes Mellitus	9	36.6	9	37.3	-	-	-	-
Chronic Liver Disease and Cirrhosis	1	•	1	•	-	-	-	
Homicide		-	-	-	-	-	-	
Suicide	3	*	3	*	•	-	-	-
Atherosclerosis	14	56.9	14	58.1	-	-	-	
AIDS	1	*	1	•	-		-	-

Profile of Midland County

	_				
POPULATION		NATALITY		MORTALITY	
As of April 1, 1992:	77.950	Total Live Births:	1,110	Total Deaths:	517
Rank Among Counties:	23	Teenage Mothers:	75	Infant Deaths:	12
Per Square Mile:	148.5	Low Weight Births:	70	Neonatal Deaths:	9
. c. cquair inne.		First Births:	408	Postneonatal Deaths:	3
				Perinatal Deaths:	13
				Fetal Deaths:	6
MARRIAGE		DIVORCE			
Marriages:	627	Divorces:	363		
Marriage Rate:	16.1	Divorce Rate:	9.3		



NATALITY BY RACE OF MOTHER

	To	tai	w	White			Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Live Births	1,110	14.2	1,083	14.3	16	20.7	11	8.8	
	To	tai	w	hite	BI	ack	Ot	her	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio	
Teenage Mothers	75	67.6	72	66.5	2	•	1	*	
Low Weight	70	63.1	69	63.7	1	•	-	-	
Under 1,500 Grams	18	16.2	17	15.7	1	•	-	-	
< 38 Weeks Gestation	160	144.1	157	145.0	3	•	-	-	
Prenatal Care Began in 1st Trimester	981	883.8	958	884.6	12	750.0	11	1,000.0	

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		Whi	ite	Blad	ck	Oth	er
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	12	10.8	12	11.1	-	-	-	-
Neonatal Deaths	9	8.1	9	8.3	-		-	-
Postneonatal Deaths	3	•	3	•	•	-	-	-
Perinatal Deaths	13	11.6	13	11.9	-	•	•	•
Fetal Deaths	6	5.4	6	5.5	•	-	-	-

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

Deaths	Total 517	All Rac Male 249	Fe	male 68	Total 509	White Male 244	Female 265	Total 1	Black Male 1	Female -	Total 7	Other Male 4	Female 3
						A	ge 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	4	1	2	5	1	7	11	22	36	73	343	-
White Male	6	4	1	1	3	1	6	7	11	13	48	143	-
White Female	6	•		1		-	1	4	10	22	23	198	-
Black Male	-		-	-	_		-	-	-	-	-	1	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	_	-	-		1	-	-	-	-	1	2	-	-
Other Female	-	-	-	-	1	-	-	-	1	-	-	1	•

LEADING CAUSES OF DEATH

	Total		W	nite	Black		Children Ages 1-1	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	517	663.2	509	670.4	1	•	12	54.2
Diseases of the Heart	166	213.0	166	218.6	-	-	-	-
Malignant Neoplasms	115	147.5	113	148.8	-	-	1	•
Cerebrovascular Diseases	29	37.2	29	38.2	-	-	-	-
Accidents and Adverse Effects	24	30.8	21	27.7	-	-	9	40.6
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	23	29.5	23	30.3	-	-	-	-
Pneumonia and Influenza	25	32.1	24	31.6	1	•	•	-
Diabetes Mellitus	16	20.5	16	21.1	-	-	-	•
Chronic Liver Disease and Cirrhosis	10	12.8	10	13.2	-	-	-	-
Homicide	1	•	1	•	-	-	-	
Suicide	10	12.8	10	13.2	-	-	1	•
Atherosclerosis	10	12.8	10	13.2	-	-	-	
AIDS		-	-	•	-	-	-	-

Profile of Missaukee County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1992:	12,739	Total Live Births:	175	Total Deaths:	127
Rank Among Counties:	71	Teenage Mothers:	25	Infant Deaths:	•
Per Square Mile:	22.6	Low Weight Births:	13	Neonatal Deaths:	_
		First Births:	68	Postneonatal Deaths:	_
				Perinatal Deaths:	1
				Fetal Deaths:	1
MARRIAGE		DIVORCE			
Marriages:	92	Divorces:	58		
Маліаде Rate:	14.4	Divorce Rate:	9.1		



NATALITY BY RACE OF MOTHER

	To	otal	w	hite	ВІ	ack	Other			
	Number	Rate	Number	Rate	Number	Rate	Number	Rate		
Live Births	175	13.7	175	13.9	•	-	-	•		
	Тс	otal	w	hite	BI	ack	Ott	ıer		
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio		
Teenage Mothers	25	142.9	25	142.9	-	•	-	-		
Low Weight	13	74.3	13	74.3	•	•	-	-		
Under 1,500 Grams	-	-	-	-	-	-	-	-		
< 38 Weeks Gestation	27	154.3	27	154.3	-	-	-	-		
Prenatal Care Began in 1st Trimester	138	788.6	138	788.6	•	•	-	-		

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tot	al	Wh	ite	Blad	ck	Oth	er
	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 1994 in specified group.

MORTALITY

Deaths	Total 127	Ali Rac Male 70		nale 7	Total 124	White Male 68	Female 56	Total 1	Black Male 1	Female -	Total 2	Other Male 1	Female 1
						Ag	ge 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	4	3	5	24	89	-
White Male	-	1	-	-	-	-	-	4	2	4	18	39	•
White Female	-	-	-	-	-	-	1	-	-	1	6	48	•
Black Male	-	-	-	-	-	-	-	-	-	-	-	1	•
Black Female	•	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	-	1	-
Other Female	-	-	-	-	-	-	-	-	1	-	•	-	-

LEADING CAUSES OF DEATH

Total		WI	nite	Bla	ck	Children Ages 1-19 Number Rate 1	jes 1-19
Number	Rate	Number	Rate	Number	Rate		
127	996.9	124	983.3	1		1	•
38	298.3	36	285.5	-	-	•	-
27	211.9	27	214.1	-	-	•	
16	125.6	15	118.9	1	*	-	-
4	*	4	*	-	•	•	-
6	47.1	6	47.6	-	•	-	-
6	47.1	6	47.6	-	-	-	-
6	47.1	6	47.6	•	-	-	-
-	-	-	•	-	•	•	•
1	*	1	•	•	-	1	*
-	-	-	-	-	-	•	-
-	-	•	•	-	-	•	-
-	•	-	•	-	-	-	-
	Number 127 38 27 16 4	Number Rate 127 996.9 38 298.3 27 211.9 16 125.6 4 *	Number Rate Number 127 996.9 124 38 298.3 36 27 211.9 27 16 125.6 15 4 * 4 6 47.1 6 6 47.1 6	Number Rate Number Rate 127 996.9 124 983.3 38 298.3 36 285.5 27 211.9 27 214.1 16 125.6 15 118.9 4 * 4 * 6 47.1 6 47.6 6 47.1 6 47.6 6 47.1 6 47.6	Number Rate Number Rate Number 127 996.9 124 983.3 1 38 298.3 36 285.5 - 27 211.9 27 214.1 - 16 125.6 15 118.9 1 4 * 4 * - 6 47.1 6 47.6 - 6 47.1 6 47.6 -	Number Rate Number Rate Number Rate 127 996.9 124 983.3 1 * 38 298.3 36 285.5 - - 27 211.9 27 214.1 - - 16 125.6 15 118.9 1 * 4 * 4 * - - 6 47.1 6 47.6 - - 6 47.1 6 47.6 - -	Number Rate Number Rate Number Rate Number Rate Number 127 996.9 124 983.3 1 " 1 38 298.3 36 285.5 - - - - 27 211.9 27 214.1 - <

13.9

Marriages: Marriage Rate:

As of April 1, 1992:	135,962	NATALITY Total Live Births:	1,777	MORTALITY Total Deaths:	1,143
Rank Among Counties: Per Square Mile:	16 244.2	Teenage Mothers: Low Weight Births: First Births:	228 104 769	Infant Deaths: Neonatal Deaths: Postneonatal Deaths:	15 8 7
MARRIAGE		DIVORCE		Perinatal Deaths: Fetal Deaths:	14 6

Divorces:

Divorce Rate:



NATALITY BY RACE OF MOTHER

	To	ital	w	hite	Bl	ack	Ott	
Live Births	Number 1,777	Rate 13.1	Number 1,715	Rate 13.0	Number 39	Rate 16.1	Number 13	Rate 11.0
	Total		White		Black		Other	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	228	128.3	219	127.7	8	205.1	1	•
Low Weight	104	58.5	98	57.1	4	•	2	*
Under 1.500 Grams	16	9.0	15	8.7	1	*	-	-
< 38 Weeks Gestation	270	151.9	256	149.3	9	230.8	5	•
Prenatal Care Began in 1st Trimester	1,499	843.6	1,455	848.4	26	666.7	11	846.2

627 9.2

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Bla	ck	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Infant Deaths	15	8.4	12	7.0	2	*	1	•	
Neonatal Deaths	8	4.5	7	4.1	1	•	-	-	
Postneonatal Deaths	7	3.9	5	*	1	*	1	•	
Perinatal Deaths	14	7.9	13	7.6	1	•	•	-	
Fetal Deaths	6	3.4	6	3.5	-	-	-	-	

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

Deaths	Total 1,143	All Race Male 565	Fer	nale 78	Total 1,105	White Male 543	Female 562	Total 29	Black Male 15	Female 14	Total 9	Other Male 7	Female 2
						A	ge 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	15	1	1	3	9	8	9	25	53	81	190	748	-
White Male	9	-	1	Ĩ.	6	7	6	18	28	47	106	314	-
White Female	3	1	•	2	2	1	2	6	19	31	79	416	-
	3	'		-	1		1		3	1	3	5	-
Black Male		-	-		•			_	3	_	1	9	_
Black Female	1	-	-	-	-	-	-	- :	3	2	4	2	
Other Male	1	-	-	-	-	-	-	7	•	2	1	2	-
Other Female	•	•	-	-	-	-	-	-	-	-	-	2	-

LEADING CAUSES OF DEATH

	To	tal	W	nite	В	ack	Children Ag	es 1-19
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	1,143	840.7	1,105	834.8	29	1,200.3	14	34.6
Diseases of the Heart	405	297.9	400	302.2	5	*	-	
Malignant Neoplasms	294	216.2	282	213.1	9	372.5	2	•
Cerebrovascular Diseases	63	46.3	61	46.1	1	•	-	
Accidents and Adverse Effects	39	28.7	36	27.2	2	•	4	•
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	72	53.0	69	52.1	1	*	-	
Pneumonia and Influenza	24	17.7	24	18.1	-	-	•	
Diabetes Mellitus	30	22.1	28	21.2	2	•	-	
Chronic Liver Disease and Cirrhosis	16	11.8	15	11.3	1	*	-	
Homicide	5	*	4	•	1	•	1	•
Suicide	12	8.8	12	9.1	-	-	1	,
Atherosclerosis	12	8.8	11	8.3	1	•	-	
AIDS	3	•	3	•	-	-	•	

Profile of Montcalm County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1992:	55,445	Total Live Births:	800	Total Deaths:	506
Rank Among Counties:	33	Teenage Mothers:	143	Infant Deaths:	3
Per Square Mile:	77.8	Low Weight Births:	40	Neonatal Deaths:	-
,		First Births:	320	Postneonatal Deaths:	3
				Perinatal Deaths:	1
				Fetal Deaths:	1
MARRIAGE		DIVORCE			
Marriages:	471	Divorces:	303		
Marriage Rate:	17.0	Divorce Rate:	10.9		



NATALITY BY RACE OF MOTHER

	To	otal	W	hite	Bl	ack	Ot	her
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	800	14.4	786	14.7	5	•	9	14.2
		Total		hite	ВІ	Black		her
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	143	178.8	139	176.8	2	*	2	*
Low Weight	40	50.0	38	48.3	-	-	2	
Under 1,500 Grams	8	10.0	7	8.9	-	-	1	
< 38 Weeks Gestation	130	162.5	128	162.8	1	•	1	*
Prenatal Care Began in								
1st Trimester	617	771.3	606	771.0	2	•	9	1000.0

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	To	Total		ite	Bla	ck	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Infant Deaths	3	•	3	*		-	-	-	
Neonatal Deaths	-	-	•	•	•	•	•	-	
Postneonatal Deaths	3	*	3	*	•	•	•	-	
Perinatal Deaths	1	•	1	*	•	-	-	-	
Fetal Deaths	1	•	1	*	-	-	-	-	

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

Deaths	Total 506	All Rac Male 290	Fe	naie 16	Total 501	White Male 288	Female 213	Total 4	Black Male 1	Female 3	Total 1	Other Male 1	Female -
						A	ge 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	2	1	1	3	10	6	15	17	30	80	338	•
White Male	3	1	1	1	2	10	4	12	8	19	56	171	-
White Female	-	-	-	-	1	-	2	2	9	11	23	165	-
Black Male	-	-	-	-	-	-	-	-	-	-	1		-
Black Female	-	-	-	-	-	-	-	1	-	-	-	2	-
Other Male	-	1	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	•	-	-	•	-	-	-

LEA	IDING	CAUSES	OF	DEA	тн

	To	tal	W	nite	Bla	ck	Children Ag	jes 1-19
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	506	912.6	501	933.9	4	*	7	42.4
Diseases of the Heart	157	283.2	157	292.7	-	-	•	-
Malignant Neoplasms	122	220.0	120	223.7	2	*	-	-
Cerebrovascular Diseases	30	54.1	30	55.9	-	-	•	-
Accidents and Adverse Effects	34	61.3	33	61.5	-	-	6	36.4
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	24	43.3	24	44.7	-	-	-	-
Pneumonia and Influenza	21	37.9	21	39.1	-	-	-	-
Diabetes Mellitus	17	30.7	17	31.7	-	-	-	-
Chronic Liver Disease and Cirrhosis	2	•	2	•	-	-	-	-
Hornicide	1	*	1	•	•	-	-	-
Suicide	10	18.0	9	16.8	1	*	-	•
Atherosclerosis	2	*	2	•	-	-	-	-
AIDS	1	*	1	•	•	•	-	-

Note: Rate is per 100,000 estimated population in 1992 in specified group. Office of the State Registrar and Division of Health Statistics, MDPH Marriage Rate:

POPULATION		NATALITY		MORTALITY	
As of April 1, 1992:	9.355	Total Live Births:	91	Total Deaths:	130
Rank Among Counties:	75	Teenage Mothers:	18	Infant Deaths:	1
Per Square Mile:	17.0	Low Weight Births:	4	Neonatal Deaths:	-
rei oquare ivile.		First Births:	36	Postneonatal Deaths:	1
		, wet but to		Perinatal Deaths:	1
				Fetal Deaths:	1
MARRIAGE		DIVORCE			
Marriages:	69	Divorces:	36		
Marriage Rate:	14.8	Divorce Rate:	7.7		



NATALITY BY RACE OF MOTHER

	То	tal	w	hite	Bla	ack	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Live Births	91	9.7	90	9.7	-	-	-	-	
	To	tal	w	hite	Bi	ack	Oth		
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio	
Teenage Mothers	18	197.8	17	188.9	-	-	-	-	
Low Weight	4	*	3	•	-	-	-	-	
Under 1,500 Grams	2	*	1	•	-	-	-	-	
< 38 Weeks Gestation	16	175.8	15	166.7	•	-	•	-	
Prenatal Care Began in 1st Trimester	79	868.1	79	877.8	•	•	-	-	

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tot	ai	Wh	ite	Bla	ck	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Infant Deaths	1	*	1	•	-	•	-	•	
Neonatal Deaths	-	•	•	•	•	-	•	•	
Postneonatal Deaths	1	*	1	•	-	-	-	•	
Perinatal Deaths	1	*	1	•	-	-	-	•	
Fetal Deaths	1	•	1	*	-	-	-	•	

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

Deaths	Total 130	All Races Male 77	Fer	nale 3	Total 130	White Male 77	Female 53	Total -	Black Male	Female	Totai -	Other Male -	Female -
						A	ge 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	٠.		1	2	-	2	3	12	27	81	-
White Male		i	_	_	1	1	-	2	2	7	22	41	-
White Female	1		-		-	1	-	-	1	5	5	40	-
Black Male				-	_	-	-	-	-	-	-	-	-
Black Female	-			-		-	-	-	-	-	-	-	-
Other Male		-	-	-	-	-	-	-	•	-	-	-	-
Other Female	•	•	-	-	-	-	-	-	-	-	-	-	-

LEADING CAUSES OF DEATH

	T.	otal	W	hite	Bla	ck	Children Ag	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	130	1,389.8	130	1,400.3	•	-	2	1
Diseases of the Heart	. 44	470.4	44	473.9	•	-	-	
Malignant Neoplasms	26	278.0	26	280.1	-	•	-	
Cerebrovascular Diseases	7	74.8	7	75.4	-	-	-	
Accidents and Adverse Effects	5	•	5	*	-	•	2	,
Chronic Obstructive Pulmonary Diseases and Allied Conditions	11	117.6	11	118.5			•	
Pneumonia and Influenza	7	74.8	7	75.4	-	•	-	
Diabetes Mellitus	1	•	1	•	-	-	-	
Chronic Liver Disease and Cirrhosis	-	-	-	-	-	•	-	
Homicide	-	-	-	-	-	-	-	
Suicide	5	•	5	•	-	-	-	
Atherosclerosis	2	*	2	•	-	-	-	
AIDS	1	•	1	*	-	-	-	

Note: Rate is per 100,000 estimated population in 1992 in specified group. Office of the State Registrar and Division of Health Statistics, MDPH Source:

Profile of Muskegon County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1992:	161,980	Total Live Births:	2,355	Total Deaths:	1,546
Rank Among Counties:	11	Teenage Mothers:	421	Infant Deaths:	27
Per Square Mile:	319.5	Low Weight Births:	163	Neonatal Deaths:	14
·		First Births:	924	Postneonatal Deaths:	13
l				Perinatal Deaths:	29
				Fetal Deaths:	18
MARRIAGE		DIVORCE			
Marriages:	1.329	Divorces:	835		
Marriage Rate:	16.4	Divorce Rate:	10.3		



NATALITY BY RACE OF MOTHER

1								
	To	tal	w	hite	ВІ	ack	Oti	her
ĺ	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	2,355	14.5	1,864	13.6	447	19.7	38	18.4
	To	xtal	w	'hite	ВІ	ack	Oti	her
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	421	178.8	261	140.0	155	346.8	2	•
Low Weight	163	69.2	112	60.1	46	102.9	5	*
Under 1,500 Grams	42	17.8	25	13.4	16	35.8	1	*
< 38 Weeks Gestation	408	173.2	286	153.4	109	243.8	11	289.5
Prenatal Care Began in								
1st Trimester	1,666	707.4	1,424	763.9	209	467.6	28	736.8

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tot	al	Wh	ite	Bla	ck	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Infant Deaths	27	11.5	16	8.6	10	22.4	1	•	
Neonatal Deaths	14	5.9	7	3.8	6	13.4	1	•	
Postneonatal Deaths	13	5.5	9	4.8	4	•		-	
Perinatal Deaths	29	12.2	13	6.9	13	28.6	1	•	
Fetal Deaths	18	7.6	9	4.8	7	15.4	-	-	

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

		All Rac	es			White			Black			Other	
	Total	Male	. Fer	male	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	1,546	769	7	77	1,328	645	683	206	120	86	12	4	8
						A	ge in Years						
il	<1	1-4	5-9	10-14	15-19	20-24		30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	27	9	1	1	6	10	9	45	76	112	248	1,002	
White Male	7	5	-	1	4	5	1	18	38	54	112	400	-
White Female	9	2	-	-	1	. 1	3	15	23	36	89	504	-
Black Male	4	•	-	-	1	4	3	8	9	10	29	52	-
Black Female	6	2	1	-	-	-	1	4	4	11	14	43	-
Other Male	•	-	-	-	-	-	-		-	-	1	3	-
Other Female	1	•	-	-	-	-	1	-	2	1	3	-	-

LEADING CAUSES OF DEATH

	To	tal	W	nite	Bla	ack	Children Ag	ges 1-19
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	1,546	954.4	1,328	967.6	206	908.7	17	36.0
Diseases of the Heart	521	321.6	466	339.5	52	229.4	-	-
Malignant Neoplasms	338	208.7	290	211.3	46	202.9	•	
Cerebrovascular Diseases	111	68.5	97	70.7	14	61.8	-	
Accidents and Adverse Effects	53	32.7	46	33.5	7	30.9	13	27.6
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	76	46.9	67	48.8	9	39.7		
Pneumonia and Influenza	49	30.3	43	31.3	5		-	
Diabetes Mellitus	54	33.3	43	31.3	10	44.1	-	
Chronic Liver Disease and Cirrhosis	19	11.7	14	10.2	4			
Homicide	15	9.3	4		10	44.1	_	
Suicide	21	13.0	17	12.4	4	*	_	
Atherosclerosis	49	30.3	43	31.3	5	•	-	
AIDS	7	4.3	5	*	2		_	_

Office of the State Registrar and Division of Health Statistics, MDPH

Marriage Rate:

Profile of Newaygo County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1992: Rank Among Counties: Per Square Mile:	40,756 39 48.1	Total Live Births: Teenage Mothers: Low Weight Births: First Births:	602 81 38 205	Total Deaths: Infant Deaths: Neonatal Deaths: Postneonatal Deaths: Perinatal Deaths:	417 7 4 3 8
MARRIAGE Marriages: Marriage Rate:	353 17.3	DIVORCE Divorces: Divorce Rate:	226 11.1	Fetal Deaths:	4



NATALITY BY RACE OF MOTHER

	To	tal	w	'hite	ВІ	ack	Other		
Live Births	Number 602	Rate 14.8	Number 596	Rate 15.0	Number 2	Rate *	Number 3	Rate	
	To	tal	w	'hite	В	ack	Oth	ier	
ļ.	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio	
Teenage Mothers	81	134.6	80	134.2	-	•	•	•	
Low Weight	38	63.1	36	60.4	•	•	2	*	
Under 1,500 Grams	8	13.3	8	13.4	-	-	-	-	
< 38 Weeks Gestation	97	161.1	94	157.7	1	•	2	*	
Prenatal Care Began in 1st Trimester	446	740.9	444	745.0	2	•	•	-	

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tot	al	Whi	ite	Blac	ck	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Infant Deaths	7	11.6	7	11.7	-	-	-	-	
Neonatal Deaths	4	*	4	*	-	-	-	-	
Postneonatal Deaths	3	*	3	*	-	-	-	-	
Perinatal Deaths	8	13.2	8	13.3	-	•	•	-	
Fetal Deaths	4	•	4	*	-	-	-	•	

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

Deaths	Total 417	All Race Male 219	Fei	nale 98	Total 400	White Male 211	Female 189	Total 13	Black Male 6	Female 7	Total 4	Other Male 2	Female 2
						A	ge in Years						
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-69	60-69	70+	Unk
Total Deaths	7	· 1	•	1	3	4	3	10	15	28	71	274	-
White Male	4	-		1	3	1	1	7	11	13	39	131	-
White Female	3	_	_		-	3	2	3	3	14	28	133	-
Black Male	_	1	_		_		-		1	-	1	3	-
Black Female	_	•	_	_			-	-	-	-	2	5	-
Other Male	_	_	_	_	_	_	-	-		_	1	1	-
Other Female	-	-	•	-	-	-	-	-	-	1	-	1	-

LEADING CAUSES OF DEATH	LEA	DING	CAUSE	S OF	DEATH
-------------------------	-----	------	-------	------	-------

	T	otal	W	hite	В	lack	Children Ages 1-		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
All Causes	417	1,023.2	400	1,004.2	13	2,653.1	5		
Diseases of the Heart	163	399.9	160	401.7	3	•	-		
Malignant Neoplasms	107	262.5	104	261.1	2	•	-		
Cerebrovascular Diseases	23	56.4	20	50.2	1	*	-		
Accidents and Adverse Effects	24	58.9	24	60.3	-	-	4		
Chronic Obstructive Pulmonary Diseases									
and Allied Conditions	12	29.4	12	30.1	-	-	•		
Pneumonia and Influenza	17	41.7	15	37.7	2	•	•		
Diabetes Mellitus	10	24.5	9	22.6	1	•	-		
Chronic Liver Disease and Cirrhosis	1		1	*	-	-	-		
Homicide	-	-	-	-	-	-	-		
Suicide	4	•	3	*	-	-	•		
Atherosclerosis	5	•	5	•	-	-	-		
AIDS	2	*	2	•	-	-	-		

Profile of Oakland County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1992:	1,118,611	Total Live Births:	16,277	Total Deaths:	8,362
Rank Among Counties:	2	Teenage Mothers:	1,035	Infant Deaths:	89
Per Square Mile:	1,278.6	Low Weight Births:	1,116	Neonatal Deaths:	64
·		First Births:	6,752	Postneonatal Deaths:	25
				Perinatal Deaths:	138
				Fetal Deaths:	81
MARRIAGE		DIVORCE			
Marriages:	9,089	Divorces:	4,913		
Marriage Rate:	16.3	Divorce Rate:	8.8		



NATALITY BY RACE OF MOTHER

	To	otal	w	hite	Bi	ack	Oti	her
-	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	16,277	14.6	13,991	14.0	1,576	18.4	482	14.8
	To	otal	w	hite	ВІ	ack	Oti	ner
İ	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	1,035	63.6	716	51.2	298	189.1	17	35.3
Low Weight	1,116	68.6	845	60.4	222	140.9	33	68.5
Under 1,500 Grams	223	13.7	155	11.1	59	37.4	5	
< 38 Weeks Gestation	2,756	169.3	2,230	159.4	388	246.2	94	195.0
Prenatal Care Began in			,					
1st Trimester	14,384	883.7	12,668	905.4	1,103	699.9	418	867.2

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tot	Total		ite	Bla	ck	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Infant Deaths	89	5.5	62	4.4	26	16.5	1		
Neonatal Deaths	64	3.9	46	3.3	17	10.8	1	*	
Postneonatal Deaths	25	1.5	16	1.1	9	5.7	-	-	
Perinatal Deaths	138	8.4	102	7.3	27	17.0	7	14.3	
Fetal Deaths	81	5.0	61	4.3	12	7.6	6	12.3	

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

		All Race	es			White			Black			Other	
	Total	Male	Fer	male	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	8,362	3,985	4,3	375	7,679	3,632	4,045	598	317	281	81	32	49
						A	ge 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	89	26	8	19	45	59	79	240	373	623	1,295	5,506	•
White Male	31	12	4	12	25	25	46	138	183	317	660	2,179	-
White Female	30	10	-	4	13	6	19	56	125	222	516	3,044	-
Black Male	13	3	1	-	4	19	10	30	37	44	50	106	-
Black Female	13	1	2	1	1	7	4	14	18	30	49	141	-
Other Male	1	•	-	-	1	-	-	1	5	4	7	13	-
Other Female	-	-	1	2	1	2	-	1	5	3	13	21	-

LEADING CAUSES OF DEATH

	To	tal	W	nite	Bla	ack	Children Ag	res 1-19
	Number	Rate	Number	Rate	Number	Rate	Number `	Rate
All Causes	8,362	747.5	7,679	767.5	598	700.1	98	34.5
Diseases of the Heart	2,928	261.8	2,766	276.5	139	162.7	4	•
Malignant Neoplasms	2,053	183.5	1,888	188.7	139	162.7	15	5.3
Cerebrovascular Diseases	642	57.4	587	58.7	49	57.4	1	•
Accidents and Adverse Effects	229	20.5	194	19.4	27	31.6	35	12.3
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	344	30.8	327	32.7	15	17.6	-	-
Pneumonia and Influenza	249	22.3	232	23.2	16	18.7	1	•
Diabetes Mellitus	216	19.3	194	19.4	19	22.2	•	-
Chronic Liver Disease and Cirrhosis	98	8.8	86	8.6	12	14.0	1	*
Homicide	64	5.7	28	2.8	36	42.1	5	•
Suicide	120	10.7	112	11.2	8	9.4	11	3.9
Atherosclerosis	59	5.3	56	5.6	3	*	-	-
AIDS	75	6.7	53	5.3	22	25.8	1	•

Profile of Oceana County

POPULATION As of April 1, 1992: Rank Among Counties: Per Square Mile:	22,954 55 42.4	NATALITY Total Live Births: Teenage Mothers: Low Weight Births: First Births:	338 61 18 125	MORTALITY Total Deaths: Infant Deaths: Neonatal Deaths: Postneonatal Deaths: Perinatal Deaths: Fetal Deaths:	208 2 2 - 2
MARRIAGE Marriages: Marriage Rate:	215 18.7	DIVORCE Divorces: Divorce Rate:	115 10.0		



NATALITY BY RACE OF MOTHER

	To	tal	w	hite	Bla	ack	Ott	er
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	338	14.7	325	14.4	-	•	13	36.1
	To	tal	w	'hite	Bl	ack	Oti	ner
1	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	61	180.5	57	175.4	-	•	4	*
Low Weight	18	53.3	18	55.4	-	•	•	-
Under 1,500 Grams	2	•	2	•	-	•	•	-
< 38 Weeks Gestation	56	165.7	54	166.2	-	-	2	*
Prenatal Care Began in 1st Trimester	252	745.6	242	744.6	-	-	10	769.2

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tot	al	Whi	ite	Bla	ck	Oth	er
	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 1994 in specified group.

MORTALITY

Deaths	Total 208	All Rac Male 121	Fer	nale 37	Total 207	White Male 121	Female 86	Total -	Biack Maie	Female -	Total 1	Other Male	Female 1
						A	ge 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	•	•	2	1	2	5	11	17	36	131	-
White Male	-	1	-		2	1	2	3	7	13	23	69	- 1
White Female	2	-	-		-		-	2	4	4	12	62	-
Black Male	-	-	_	•	-		-	-	-	-	-	•	-
Black Female		-		•	-	•	-	-	-	-	-	-	-
Other Male		-	-	-	-	-	•	-	-	-	-	•	-
Other Female	-	•	-	-	-	-	•	-	-	-	1	-	-

LEADING CAUSES OF DEATH

	To	tal	W	nite	Bla	ck	Children Ag	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	208	906.2	207	919.1	-	-	3	•
Diseases of the Heart	81	352.9	81	359.7	-	-	-	
Malignant Neoplasms	45	196.0	45	199.8	-	-	-	
Cerebrovascular Diseases	- 10	43.6	9	40.0	-	-	-	
Accidents and Adverse Effects	16	69.7	16	71.0	•	-	2	•
Chronic Obstructive Pulmonary Diseases and Allied Conditions	9	39.2	9	40.0		-	-	
Pneumonia and Influenza	8	34.9	8	35.5	-	-	-	
Diabetes Mellitus	5	•	5	•	-	-	-	
Chronic Liver Disease and Cirrhosis	-	-	-	-	-	-	-	•
Homicide	1	*	1		-	-	-	
Suicide	1		1	•	-	•	1	1
Atherosclerosis	-	-	-	-	-	-	-	
AIDS	•	•	-	-	-	-	-	

Note: Rate is per 100,000 estimated population in 1992 in specified group. Office of the State Registrar and Division of Health Statistics, MDPH

Profile of Ogemaw County

POF	PULATION		NATALITY		MORTALITY	
As	of April 1, 1992:	19,640	Total Live Births:	250	Total Deaths:	244
Rai	nk Among Counties:	61	Teenage Mothers:	43	Infant Deaths:	2
Per	r Square Mile:	34.5	Low Weight Births:	14	Neonatal Deaths:	2
	•		First Births:	100	Postneonatal Deaths:	-
1					Perinatal Deaths:	1
					Fetal Deaths:	-
MAF	RRIAGE		DIVORCE			
Ma	rriages:	141	Divorces:	- 111		
	rriage Rate:	14.4	Divorce Rate:	11.3		
	_					



NATALITY BY RACE OF MOTHER

	To	otal	w	hite	BI	ack	Ott	пег
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	250	12.7	247	12.7	-	-	3	*
	To	otal	w	hite	Bi	ack	Ott	ner
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	43	172.0	41	166.0	•	-	2	*
Low Weight	14	56.0	14	56.7	-	-		-
Under 1,500 Grams	2	•	2	•	•	_		-
< 38 Weeks Gestation	47	188.0	46	186.2	•	-	1	
Prenatal Care Began in								
1st Trimester	222	888.0	219	886.6	-		3	

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tot	aí	Whi	ite	Bia	ck	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Infant Deaths	2	•	2	*	-	-	•	-	
Neonatal Deaths	2	•	2	*	-	-		-	
Postneonatal Deaths	-	-	-	-	-	-	-	-	
Perinatal Deaths	1	•	1	•		-	-	_	
Fetal Deaths	•	•	-	-	-	-	-	-	

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

		All Rac	es			White			Black			Other	
	Total	Male	Fer	male	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	244	134	1	10	242	132	110	•	•	-	2	2	-
						A	ge 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	12	16	43	164	-
White Male	2	-	-		1	-	2	1	7	9	27	83	-
White Female	-	-	-	•	1	-	•	2	5	7	14	81	•
Black Male	-	-	-	-	-	-	-	•	-	-	-	-	-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	•		-	-	-	-	-	-	2	•	-
Other Female	-	-	-	-	•	-	-	-	-	•	-	•	-

LEADING CAUSES OF DEATH

	Т	otal	W	hite	Bla	ck	Children Ag	jes 1-19
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	244	1,242.4	242	1,245.5		-	2	•
Diseases of the Heart	98	499.0	97	499.2	-	-	-	
Malignant Neoplasms	51	259.7	50	257.3	-	-	-	-
Cerebrovascular Diseases	20	101.8	20	102.9	_	-	•	-
Accidents and Adverse Effects	11	56.0	11	56.6	-	-	2	
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	6	30.5	6	30.9	•	-	•	-
Pneumonia and Influenza	7	35.6	7	36.0	•	-	-	-
Diabetes Mellitus	5	•	5	*	-	-	-	-
Chronic Liver Disease and Cirrhosis	3	•	3	•	-	-	-	
Homicide	1	•	1	*	-	-	•	-
Suicide	6	30.5	6	30.9	-	-	-	-
Atherosclerosis	14	71.3	14	72.1	-	-	-	-
AIDS	1	•	1	•	-	_	-	

Note: Rate is per 100,000 estimated population in 1992 in specified group. Office of the State Registrar and Division of Health Statistics, MDPH Source:

Profile of Ontonagon County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1992:	8.761	Total Live Births:	75	Total Deaths:	123
Rank Among Counties:	78	Teenage Mothers:	4	Infant Deaths:	
Per Square Mile:	6.7	Low Weight Births:	1	Neonatal Deaths:	-
i ci oquaic iiiio.		First Births:	29	Postneonatal Deaths:	-
				Perinatal Deaths:	-
				Fetal Deaths:	-
MARRIAGE		DIVORCE			
Marriages:	63	Divorces:	32		
Marriage Rate:	14.4	Divorce Rate:	7.3		



NATALITY BY RACE OF MOTHER

	To	tal	w	hite	Bi	ack	Oth	ier
1	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	75	8.6	72	8.4	-	-	3	•
	To	tal	w	hite	В	ack	Ott	ner
1	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	4	**	4	•	-	•	•	-
Low Weight	1	*	1	•	-	-	-	•
Under 1,500 Grams	-	_	•	-	-	•	•	-
< 38 Weeks Gestation	10	133.3	10	138.9	-	-	•	-
Prenatal Care Began in 1st Trimester	65	866.7	62	861.1	-	-	3	*

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tot	ai	White		Blac	ck	Oth	ег
	Number	Number Rate		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 1994 in specified group.

MORTALITY

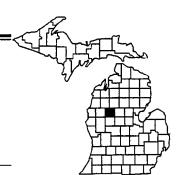
Deaths	Total 123	All Race Male 68	Fer	nale 5	Total 123	White Male 68	Female 55	Total -	Black Male -	Female -	Total -	Other Male -	Female
						A	ge in Years						
1	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths		-	٠.		1	-	-	1	1	7	20	93	-
White Male		-		_	1	-	-	1	1	6	12	47	-
White Female			_			-	-		-	1	8	46	-
Black Male	-		-		-	-	•	-	-	-	-	-	-
Black Female	-		-	<u>.</u>	-	-	-	-	-	-	-	-	-
Other Male		-	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	-	•	-	-	-	•	-	-

LEADING CAUSES OF DEATH

	T-	otal	W	hite	Black		Children Ages 1-1	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	123	1,403.8	123	1,428.2	-	-	1	,
Diseases of the Heart	41	467.9	41	476.1	-	-	•	
Malignant Neoplasms	23	262.5	23	267.1	-	-	-	
Cerebrovascular Diseases	9	102.7	9	104.5	-	-	-	
Accidents and Adverse Effects	6	68.5	6	69.7	-	-	-	
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	7	79.9	7	81.3	-	-	•	
Pneumonia and Influenza	4	•	4	•	-	•	-	
Diabetes Mellitus	8	91.3	8	92.9	-	-	•	
Chronic Liver Disease and Cirrhosis	-	-	-	-	-	-	-	
Homicide	-	-	-	-	-	-	-	
Suicide	2	*	2	•	-	•	1	
Atherosclerosis	7	79.9	7	81.3	-	-	-	
AIDS	-	-	-	-	-	-	-	

Profile of Osceola County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1992:	20,638	Total Live Births:	279	Total Deaths:	207
Rank Among Counties:	60	Teenage Mothers:	35	Infant Deaths:	-
Per Square Mile:	36.3	Low Weight Births:	15	Neonatal Deaths:	•
		First Births:	98	Postneonatal Deaths:	-
				Perinatal Deaths:	2
				Fetal Deaths:	2
MARRIAGE		DIVORCE			
Marriages:	189	Divorces:	120		
Marriage Rate:	18.3	Divorce Rate:	11.6		



NATALITY BY RACE OF MOTHER

	. То	otai	w	'hite	ВІ	ack	Oti	ner
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	279	13.5	279	13.7	-	-	•	-
	To	xtai	w	hite	ВІ	ack	Ott	пег
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	35	125.4	35	125.4	-	-	•	-
Low Weight	15	53.8	15	53.8	•	-		-
Under 1,500 Grams	2	•	2	•	•	•	•	-
< 38 Weeks Gestation	39	139.8	39	139.8	-	•	•	-
Prenatal Care Began in								
1st Trimester	198	709.7	198	709.7	-	•	_	-

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tot	al	Whi	ite	Blac	:k	Other		
	Number	Number Rate		Rate	Number	Rate Numb		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 1994 in specified group.

MORTALITY

Deaths	Total 207	All Rac Male 110	Fer	nale 97	Total 207	White Male 110	Female 97	Total -	Black Male -	Female	Total -	Other Male -	Female
			.,			A	ge 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	9	23	42	128	-
White Male		-	1	-	1	-	-	2	6	12	25	63	-
White Female	-	-	-	-	-	-	-	1	3	11	17	65	
Black Male	-	-	-	-	-	-	-	-		-	-	-	•
Black Female	-	-	-		-	-	-	•	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	•	•	-
Other Female	-	-	-	-	-	-	-	-	-	•	-	-	-

LEADING CAUSES OF DEATH

	To	otal	W	hite	Bla	ck	Children Ag	jes 1-19
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	207	1,003.0	207	1,015.5	-	•	2	*
Diseases of the Heart	74	358.6	74	363.0	-	•	-	
Malignant Neoplasms	51	247.1	51	250.2	-	•	-	-
Cerebrovascular Diseases	15	72.7	15	73.6	-	-	-	-
Accidents and Adverse Effects	7	33.9	7	34.3	-	-	-	-
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	16	77.5	16	78.5	-	-	-	-
Pneumonia and Influenza	3	•	3	•	-	-	-	•
Diabetes Mellitus	2	•	2	•	-	-	-	-
Chronic Liver Disease and Cirrhosis	2	*	2	•	-	-	-	-
Homicide	1	*	1	*	-	-	-	-
Suicide	4	*	4	•	-	-	1	*
Atherosclerosis	2	*	2	•	-	-	-	-
AIDS		-	-			-	-	-

78

19.0

Marriages:

Marriage Rate:

Profile of Oscoda County

POPULATION As of April 1, 1992: Rank Among Counties: Per Square Mile:	8,222 80 14.5	NATALITY Total Live Births: Teenage Mothers: Low Weight Births: First Births:	109 15 7 39	MORTALITY Total Deaths: Infant Deaths: Neonatal Deaths: Postneonatal Deaths: Perinatal Deaths:	105 1 - 1 2
				Fetal Deaths:	2
MARRIAGE		DIVORCE		retal Deaths:	

Divorces:

Divorce Rate:



NATALITY BY RACE OF MOTHER

	Total		w	hite .		ack	Other Pate		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Live Births	109	13.3	105	12.9	1	•	3	*	
	To	tal	w	hite	BI	ack	Ott	ner	
i	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio	
Teenage Mothers	15	137.6	12	114.3	1	•	2	*	
Low Weight	7	64.2	7	66.7	-	-	-	-	
Under 1,500 Grams	i	•	1	•	•	-	-	-	
< 38 Weeks Gestation	17	156.0	15	142.9	-	•	2	•	
Prenatal Care Began in 1st Trimester	75	688.1	73	695.2	-	-	2	•	

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tot	ai	Wh	ite	Bla	ck	Oth	er		
	Number	Number Rate		Number Rate		Rate	Number	Rate	Number	Rate
Infant Deaths	1	•	1	*	-	•	•	-		
Neonatal Deaths	•	-	-	-	-	-	-	-		
Postneonatal Deaths	1	•	1	*	-	-	-	-		
Perinatal Deaths	2	*	2	*	•	-	•	-		
Fetal Deaths	2	•	2	•	-	•	-	•		

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

Deaths	Total 105	All Rac Male 58	Fer	nale 7	Total 104	White Male 57	Female 47	Total -	Black Maie	Female -	Total -	Other Male -	Female -
						А	ge in Years						
İ	<1	1-4	5-9	10-14	15-19	20-24		30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	``1	1	1			1	1	1	1	11	20	67	-
	•	4	•	_	_	1	1	1	1	5	9	37	-
White Male	- 7	•	•	_		_	_		_	6	11	29	-
White Female	1	-	-	-	-	_	-		_	-		_	-
Black Male	-	•	-	-	-	-	•	-	-	_	=		_ '
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	•
Other Male	-	-	-	-	-	-	•	-	-	-	-	-	-
Other Female	-	•	-	-	-	•	•	-	-	-	-	-	-

LEADING CAUSES OF DEATH

	T	otal	w	hite	Bla	ck	Children Ages 1-19		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
All Causes	105	1.276.9	104	1,273.7	-	-	2	•	
Diseases of the Heart	33	401.3	33	404.2	-	-	•	-	
	21	255.4	21	257.2	-	-	•	-	
Malignant Neoplasms	10	121.6	10	122.5	_	-	•		
Cerebrovascular Diseases Accidents and Adverse Effects	3	121.0	3	*	-	-	1	•	
Chronic Obstructive Pulmonary Diseases and Allied Conditions	6	73.0	6	73.5		-	•		
Pneumonia and Influenza	4	•	4	•	-	-	-		
Diabetes Melitus	5	•	5	•	-	-	-		
Chronic Liver Disease and Cirrhosis	1	•	1	*	-	-	-	•	
Homicide	-	-	-	-	-	-	-		
Suicide	2	•	2	•	•	-	-	•	
Atherosclerosis	1	*	1	*	-	-	•	•	
AIDS	-	-	-	-	-	-	-	•	

Note: Rate is per 100,000 estimated population in 1992 in specified group.

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

Profile of Otsego County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1992:	19,096	Total Live Births:	264	Total Deaths:	155
Rank Among Counties:	62	Teenage Mothers:	28	Infant Deaths:	2
Per Square Mile:	37.0	Low Weight Births:	23	Neonatal Deaths:	2
		First Births:	95	Postneonatal Deaths:	-
				Perinatal Deaths:	2
				Fetal Deaths:	1
MARRIAGE		DIVORCE			
Marriages:	167	Divorces:	85		
Маггіаде Rate:	17.5	Divorce Rate:	8.9		



NATALITY BY RACE OF MOTHER

1								
i	To	otal	w	hite	ВІ	ack	Ott	ner
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	264	13.8	261	13.8	-	-	3	*
	To	otal	w	hite	ВІ	ack	Ott	ner
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	28	106.1	28	107.3	-	•	-	-
Low Weight	23	87.1	22	84.3	•	-	1	*
Under 1,500 Grams	6	22.7	6	23.0	-	-	-	-
< 38 Weeks Gestation	53	200.8	51	195.4	-	-	2	*
Prenatal Care Began in								
1st Trimester	228	863.6	227	869.7		-	1	*
1								

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tot	tai	Wh	ite	Bla	ck	Oth	er
	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 1994 in specified group.

MORTALITY

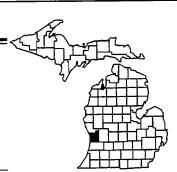
		All Rac	es			White			Black			Other	
	Total	Male	Fer	nale	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	155	82	7	3	153	80	73	1	1	•	1	1	•
						A	ge in Years						
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	2	•	-	-	1	1	1	3	8	13	32	94	-
White Male	1	-	-	-	-	1	1	-	5	9	22	41	-
White Female	1	-	-	-	1		-	2	3	4	9	53	-
Black Male	-	-	-	-	-	-	-	-	-	-	1	-	-
Black Female	-	-	-	-	•	-	-	-	•	-	-	-	-
Other Male	-	-	-	-	-	-	-	1	-	-	-	•	•
Other Female	-	-	•	-	-	-	•	-	-	-	-	-	-

LEADING CAUSES OF DEATH

	To	tal	Wi	nite	Bla	ck	Children Ag	jes 1-19
İ	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	155	811.7	153	811.5	1	•	1	•
Diseases of the Heart	56	293.3	56	297.0	-	-	-	-
Malignant Neoplasms	38	199.0	38	201.5	-	•	-	-
Cerebrovascular Diseases	9	47.1	9	47.7	•	-	•	-
Accidents and Adverse Effects	5	*	4	*	-	-	1	*
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	5	•	5	*	-	-	-	-
Pneumonia and Influenza	-	-	-	-	-		-	-
Diabetes Mellitus	1	*	1	*	-	-	•	-
Chronic Liver Disease and Cirrhosis	3	*	3	*	-	-	•	-
Homicide	1	*	1	*	-	-	-	-
Suicide	3	•	3	*	-	-	-	
Atherosclerosis	3		3	•	-			-
AIDS	-	•	-	•	-	-	-	-

Profile of Ottawa County

POPULATION As of April 1, 1992: Rank Among Counties: Per Square Mile:	197,297 10 347.9	NATALITY Total Live Births: Teenage Mothers: Low Weight Births: First Births:	3,130 264 178 1,154	MORTALITY Total Deaths: Infant Deaths: Neonatal Deaths: Postneonatal Deaths: Perinatal Deaths: Fetal Deaths:	1,257 23 17 6 23 7
MARRIAGE Marriages: Marriage Rate:	1,503 15.2	DIVORCE Divorces: Divorce Rate:	77 0.8		



NATAL	ITY BY	RACE OF	MOTHER
-------	--------	---------	--------

1		_		.				
	To	ital	w	hite	Bi	ack	Oth	ner
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	3,130	15.9	3,035	15.8	19	16.5	75	20.6
	To	xtal	w	hite	ВІ	ack	Oth	
Į.	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	264	84.3	247	81.4	5	•	12	160.0
Low Weight	178	56.9	167	55.0	1	*	10	133.3
Under 1.500 Grams	41	13.1	37	12.2	-	-	4	*
< 38 Weeks Gestation	473	151.1	448	147.6	5	*	20	266.7
Prenatal Care Began in 1st Trimester	2,633	841.2	2,565	845.1	12	631.6	56	746.7

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tot	al	Whi	ite	Bla	ck	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Infant Deaths	23	7.3	21	6.9	•	-	2	•	
Neonatal Deaths	17	5.4	15	4.9		-	2	•	
Postneonatal Deaths	6	1.9	6	2.0	•	-	-	-	
Perinatal Deaths	23	7.3	21	6.9	-	-	2	•	
Fetal Deaths	7	2.2	7	2.3	-	-	-	-	

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

Deaths	Total 1,257	All Rac Male 610	Fer	male 47	Total 1,241	White Male 602	Female 639	Total 4	Black Male 1	Female 3	Total 11	Other Male 6	Female 5
						A	ge 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	3	6	3	7	17	13	30	49	83	159	864	-
White Male	11	2	4	2	5	13	8	19	30	46	96	366	-
White Female	10	-	2	- ī	2	3	4	10	17	35	61	494	-
Black Male	,,,	_	-	:	_	-	-	1	-	-	-	-	-
		-	-	_	_	_		-		-	-	3	-
Black Female	•	:	•	_	_	1	_	_	_	2	1	1	-
Other Male	-	1	-	_		•	4	_	1	-	1	-	-
Other Female	2	•	•	-	•	-	•	_	•		•		

LEADING CAUSES OF DEATH

	To	tal	W	nite	Bla	ck	Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	1.257	637.1	1,241	644.6	4		19	30.7
	366	185.5	362	188.0	2		1	•
Diseases of the Heart		149.0	291	151.2	1		2	•
Malignant Neoplasms	294				•		-	_
Cerebrovascular Diseases	94	47.6	94	48.8	-	-		40.4
Accidents and Adverse Effects	61	30.9	59	30.6	-	-	10	16.1
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	49	24.8	49	25.5	-	-	-	•
Pneumonia and Influenza	62	31.4	62	32.2	-	-	-	
	30	15.2	30	15.6	-	_	•	
Diabetes Mellitus	. 30	4.1	8	4.2		-		
Chronic Liver Disease and Cirrhosis	•		5	*	_	_		
Homicide	6	3.0	-		-	-	4	,
Suicide	14	7.1	14	7.3	•	-	ı	
Atherosclerosis	18	9.1	18	9.4	-	-	•	•
AIDS	3	•	3		-	-	-	,

Note: Rate is per 100,000 estimated population in 1992 in specified group. Office of the State Registrar and Division of Health Statistics, MDPH Source:

Profile of Presque Isle County

POPULATION	-	NATALITY		MORTALITY	
As of April 1, 1992:	13,865	Total Live Births:	124	Total Deaths:	181
Rank Among Counties:	68	Teenage Mothers:	14	Infant Deaths:	-
Per Square Mile:	21.1	Low Weight Births:	7	Neonatal Deaths:	-
-		First Births:	53	Postneonatal Deaths:	-
				Perinatal Deaths:	1
				Fetal Deaths:	1
MARRIAGE		DIVORCE			
Marriages:	80	Divorces:	41		
Marriage Rate:	11.5	Divorce Rate:	5.9		



NATALITY BY RACE OF MOTHER

1	To	xtai	W	'hite	Bi	ack	Oti	ner
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	124	8.9	122	8.9	1	•	1	*
	To	otal	w	'hite	В	ack	Oti	her
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	14	112.9	14	114.8	•	•	-	-
Low Weight	7	56.5	7	57.4	-	-	•	-
Under 1,500 Grams	1	•	1	*	-	-	-	-
< 38 Weeks Gestation	15	121.0	14	114.8	•	-	1	*
Prenatal Care Began in		**						
1st Trimester	99	798.4	98	803.3	•	-	1	•

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tot	al	Wh	ite	Blac	:k	Oth	er
	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 1994 in specified group.

MORTALITY

Deaths	Total 181	All Race Male 100	_	nale 1	Totai 179	White Male 99	Female 80	Total -	Black Male -	Female -	Total 1	Other Male	Female 1
						A	ge 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	4	5	9	13	34	115	
White Male	-	-	_	-	-	1	3	3	5	7	25	55	-
White Female	-	•	-	-	-	•	1	2	4	6	8	59	-
Black Male	-	-	-	-	-	-	-	-	-		•	•	-
Black Female	-	•	-	-	-	-	-	-	-	-	-	-	-
Other Male	•	•	-	-	-	-	-	-	-	-	-	-	-
Other Female	-	-	-	-	-	•	•	-	-	-	•	1	-

LEADING CAUSES OF DEATH

	Total		W	hite	Bla	ck	Children Ag	es 1-19
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	181	1,305.5	179	1,300.3	-	-	-	•
Diseases of the Heart	70	504.9	70	508.5	-	-	•	-
Malignant Neoplasms	45	324.6	44	319.6	-	•	-	-
Cerebrovascular Diseases	14	101.0	14	101.7	•	-	-	-
Accidents and Adverse Effects	5	•	5	*	-	-	-	
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	5	•	5	•	-	-	-	-
Pneumonia and Influenza	8	57.7	8	58.1	-	-	-	-
Diabetes Mellitus	3		3	•	-		-	-
Chronic Liver Disease and Cirrhosis	2	*	2	*	- ,	-	-	-
Homicide	-	-		-	-	•	-	-
Suicide	1	*	1	•	-	-	-	
Atherosclerosis	-	-	-	-	-	-		-
AIDS	-	-	-		-	-		

Note: Rate is per 100,000 estimated population in 1992 in specified group. Office of the State Registrar and Division of Health Statistics, MDPH 174 16.7

Marriages: Marriage Rate:

		NATALITY		MORTALITY	
POPULATION As of April 1, 1992: Rank Among Counties: Per Square Mile:	20,861 59 39.5	Total Live Births: Teenage Mothers: Low Weight Births: First Births:	240 34 11 88	Total Deaths: Infant Deaths: Neonatal Deaths: Postneonatal Deaths: Perinatal Deaths:	308 1 1 - 2
				Fetal Deaths:	2
MARRIAGE		DIVORCE			

Divorces: Divorce Rate:



NATALITY BY RACE OF MOTHER

111 10.6

	To	tal	w	hite	Bla	ack	Oth	
Live Births	Number 240	Rate 11.5	Number 235	Rate 11.4	Number -	Rate -	Number 4	Rate
	To	tal	w	hite	BI	ack	Oth	ner
İ	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	34	141.7	34	144.7	-	-	-	-
Low Weight	11	45.8	11	46.8	•	-	-	-
Under 1,500 Grams	1		1	*	-	-	-	-
< 38 Weeks Gestation Prenatal Care Began in	32	133.3	30	127.7	•	-	2	•
1st Trimester	192	800.0	187	795.7	•	•	4	•

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tot	ai	Wh	ite	Bla	ck	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	2	•	2	*	•	-	-	•	

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

Deaths	Total 308	All Race: Male 184	Fer	nale 24	Total 306	White Male 182	Female 124	Total -	Black Male	Female -	Totai 2	Other Male 2	Female -
						А	ge in Years						
	<1	1-4	5-9	10-14	15-19	20-24		30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	~' 1	1	٠.		1	1	2	10	7	26	52	207	-
White Male	•	-	-	_	_	1	1	9	4	18	34	115	-
White Female	1	1	-	-	1	-	-	1	3	8	18	91	-
Black Male	:			-	-	-	-	-	-	-	-	-	-
Black Female		-	-	-		-	-	-	-	-	-	-	-
Other Male	_	-	-	_	-	-	1	-	-	-	-	1	-
Other Female	-	-	-	-	-	•	•	-	-	-	-	-	-

LEADING CAUSES OF DEATH

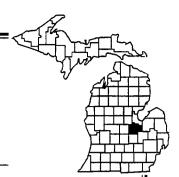
	т	otal	w	'hite	Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	308	1,476.4	306	1,480.4	-	-	2	
Diseases of the Heart	122	584.8	122	590.2	-	-	-	
Malignant Neoplasms	64	306.8	64	309.6	-	-	-	
Cerebrovascular Diseases	26	124.6	26	125.8	•	-	-	
Accidents and Adverse Effects	13	62.3	13	62.9	-	•	1	
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	16	76.7	16	77.4	-	-	-	
Pneumonia and Influenza	9	43.1	9	43.5	-	•	-	
Diabetes Mellitus	10	47.9	10	48.4	•	-	-	
Chronic Liver Disease and Cirrhosis	3	•	3	*	-	-	-	
Homicide	1		1	•	-	-	-	
Suicide	2	*	1		-	-	-	
Atherosclerosis	2	•	2	•	-	-	•	
AIDS	2	•	2	•	•	-	-	

Note: Rate is per 100,000 estimated population in 1992 in specified group.

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

Profile of Saginaw County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1992:	212,477	Total Live Births:	3,227	Total Deaths:	1,925
Rank Among Counties:	9	Teenage Mothers:	514	Infant Deaths:	29
Per Square Mile:	260.6	Low Weight Births:	281	Neonatal Deaths:	21
		First Births:	1,263	Postneonatal Deaths:	8
1			•	Perinatal Deaths:	34
				Fetal Deaths:	14
MARRIAGE		DIVORCE			
Marriages:	1,600	Divorces:	883		
Marriage Rate:	15.1	Divorce Rate:	8.3		



NATALITY BY RACE OF MOTHER

	To	xtal	White		BI	ack	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Live Births	3,227	15.2	2,315	13.5	865	22.6	42	16.4	
	To	otal	w	hite	ВІ	ack	Oti	ner	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio	
Teenage Mothers	514	159.3	270	116.6	235	271.7	7	166.7	
Low Weight	281	87.1	148	63.9	129	149.1	4		
Under 1,500 Grams	62	19.2	29	12.5	33	38.2	•	-	
< 38 Weeks Gestation	674	208.9	409	176.7	262	302.9	2		
Prenatal Care Began in									
1st Trimester	2,704	837.9	2,032	877.8	637	736.4	32	761.9	

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Bla	ck	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Infant Deaths	29	9.0	15	6.5	14	16.2	-		
Neonatal Deaths	21	6.5	11	4.8	10	11.6	-	-	
Postneonatal Deaths	8	2.5	4	*	4	•	-	•	
Perinatal Deaths	34	10.5	18	7.7	15	17.2	1	•	
Fetal Deaths	14	4.3	8	3.4	5		1	*	

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

		All Rad	ces			White			Black			Other	
	Total	Mak	e Fei	nale	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	1,925	957	9	68	1,613	788	825	304	163	141	8	6	2
						A	ge 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	29	4	3	2	17	14	16	55	87	127	297	1,274	•
White Male	9	-	1	-	5	6	8	21	37	58	131	512	-
White Female	6	3	1		7	1	2	8	17	37	97	646	
Black Male	8	-	1	1	3	5	3	18	20	11	42	51	
Black Female	6	1	-	1	2	2	3	6	13	21	26	60	-
Other Male	-	•	•	-	-	-	-	2	-	-	1	3	•
Other Female	-	-	-	-	-	-	-	•	-	-	•	2	•

LEADING CAUSES OF DEATH

	To	tal	W:	nite	Bla	ack	Children Ag	es 1-19
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	1,925	906.0	1,613	940.2	304	792.5	26	41.8
Diseases of the Heart	653	307.3	573	334.0	78	203.3	1	•
Malignant Neoplasms	453	213.2	374	218.0	77	200.7	1	*
Cerebrovascular Diseases	131	61.7	112	65.3	16	41.7	-	-
Accidents and Adverse Effects	55	25.9	45	26.2	10	26.1	12	19.3
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	122	57.4	111	64.7	11	28.7	1	•
Pneumonia and Influenza	53	24.9	46	26.8	7	18.2	•	-
Diabetes Mellitus	40	18.8	30	17.5	10	26.1	-	-
Chronic Liver Disease and Cirrhosis	26	12.2	18	10.5	7	18.2	-	-
Homicide	24	11.3	8	4.7	16	41.7	5	•
Suicide	21	9.9	18	10.5	3	•	-	-
Atherosclerosis	19	8.9	15	8.7	4	*	-	-
AIDS	11	5.2	4	•	7	18.2	-	-

Note: Rate is per 100,000 estimated population in 1992 in specified group. Office of the State Registrar and Division of Health Statistics, MDPH Source:

1,145 15.3

MARRIAGE Marriages: Marriage Rate:

POPULATION As of April 1, 1992: Rank Among Counties: Per Square Mile:	150,085 14 204.4	NATALITY Total Live Births: Teenage Mothers: Low Weight Births: First Births:	2,081 254 147 807	MORTALITY Total Deaths: Infant Deaths: Neonatal Deaths: Postneonatal Deaths: Perinatal Deaths:	1,376 19 12 7
				Perinatal Deaths: Fetal Deaths:	15

DIVORCE

Divorces:

Divorce Rate:



NATALITY BY RACE OF MOTHER

	To	Totai		White		ack	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Live Births	2,081	13.9	1,995	13.7	62	19.8	21	15.3	
	To	tal	w	hite	ВІ	ack	Ott	ner	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio	
Teenage Mothers	254	122.1	238	119.3	14	225.8	2	*	
Low Weight	147	70.6	135	67.7	9	145.2	3	*	
Under 1,500 Grams	29	13.9	27	13.5	1	•	1	•	
< 38 Weeks Gestation	338	162.4	318	159.4	17	274.2	3	*	
Prenatal Care Began in 1st Trimester	1,759	845.3	1,705	854.6	36	580.6	16	761.9	

719

9.6

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tot	al	Wh	White		ck	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Infant Deaths	19	9.1	18	9.0	1	•	-	-	
Neonatal Deaths	12	5.8	11	5.5	1	•	-	•	
Postneonatal Deaths	7	3.4	7	3.5	-	-	-	•	
Perinatal Deaths	15	7.2	13	6.5	2	*	-	-	
Fetal Deaths	4	•	3	*	1	*	-	-	

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

		Ali Race	:S			White			Black		- -4-1	Other	Famala
	Total	Male	Fer	nale	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	1,376	705	6	71	1,335	689	646	34	15	19	6	1	5
						A	ge 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	3	4	4	10	16	8	36	61	108	194	913	-
	13	1	2	,	8	9	6	22	44	67	116	405	-
White Male	44		4	4	2	6	ž	12	13	36	75	485	-
White Female	11	2	1	- :	_	4	2	12		2		7	-
Black Male	1	-	-	1	-	1	•		- 4	2	_	16	
Black Female	-	-	-	-	-	-	-	•	7	2	-	10	-
Other Male	-	-	-	-	-	-	-	1	-	-	-	-	-
Other Female	-	-	1	•	-	-	-	-	1	1	2	-	-

LEADING CAUSES OF DEATH

	To	tal	Wh	nite	В	ack	Children Ag	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	1,376	916.8	1,335	917.0	34	1,087.3	21	48.5
Diseases of the Heart	458	305.2	447	307.0	11	351.8	1	*
Malignant Neoplasms	339	225.9	334	229.4	3	•	4	•
Cerebrovascular Diseases	96	64.0	92	63.2	4	•	-	-
Accidents and Adverse Effects	52	34.6	50	34.3	1	•	10	23.1
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	63	42.0	63	43.3	-	•	•	-
Pneumonia and Influenza	47	31.3	45	30.9	2	*	•	-
Diabetes Mellitus	41	27.3	40	27.5	1	•	-	-
Chronic Liver Disease and Cirrhosis	23	15.3	21	14.4	-	-	-	-
Homicide	7	4.7	5	*	1	*	-	-
Suicide	18	12.0	18	12.4	-	-	2	•
Atherosclerosis	12	8.0	12	8.2	-	-	-	-
AIDS	10	6.7	8	5.5	2	•	•	-

Profile of St. Joseph County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1992:	59,388	Total Live Births:	860	Total Deaths:	565
Rank Among Counties:	29	Teenage Mothers:	143	Infant Deaths:	4
Per Square Mile:	118.2	Low Weight Births:	68	Neonatal Deaths:	2
ļ , , , , , , , , , , , , , , , , , , ,		First Births:	340	Postneonatal Deaths:	2
				Perinatal Deaths:	10
				Fetal Deaths:	8
MARRIAGE		DIVORCE			-
Marriages:	509	Divorces:	337		
Marriage Rate:	17.1	Divorce Rate:	11.3		



NATALITY BY RACE OF MOTHER

	To	otal	White		BI	ack	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Live Births	860	14.5	821	14.4	32	19.2	7	13.0	
	To	xtal	w	hite	ВІ	ack	Ott	ner	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio	
Teenage Mothers	143	166.3	133	162.0	10	312.5	-	-	
Low Weight	68	79.1	61	74.3	5	*	2	*	
Under 1,500 Grams	8	9.3	7	8.5		-	1	•	
< 38 Weeks Gestation	136	158.1	127	154.7	7	218.8	2	•	
Prenatal Care Began in									
1st Trimester	675	784.9	648	789.3	22	687.5	5	*	

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tot	Total		White		ck	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Infant Deaths	4	*	3	•	1	*	-		
Neonatal Deaths	2	*	2	*		-	-	-	
Postneonatal Deaths	2	*	1	*	1	•	-		
Perinatal Deaths	10	11.5	10	12.1	-	-	_		
Fetal Deaths	8	9.2	8	9.7	-	-	-	•	

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

Deaths	Total 565	All Rac Male 268	Fen	nale 97	Total 544	White Male 258	Female 286	Total 19	Black Male 8	Female 11	Total 2	Other Male 2	Female -
						A	ge 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	3	1	-	4	2	2	11	20	46	98	374	-
White Male	1	2	-	-	3	2	1	7	12	26	49	155	-
White Female	2	1	-	-	1	•	1	4	8	18	46	205	-
Black Male	1	-	1	-		-	•	-		-	-	6	-
Black Female	-	-		-	-	-	-	-	-	1	2	8	
Other Male	-	-	-	-	•	-	-	-	-	1	1	-	•
Other Female	-	-	-	-	-	•	-	-	-	-	-	-	-

IEA	DING	CAL	ICEC	OE.	DEATH	4

· ·	To	Total		nite	В	lack	Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	565	951.4	544	951.3	19	1,141.1	8	44.7
Diseases of the Heart	197	331.7	190	332.2	6	360.4	1	•
Malignant Neoplasms	134	225.6	128	223.8	5	*	-	-
Cerebrovascular Diseases	39	65.7	38	66.4	1	*	-	-
Accidents and Adverse Effects	28	47.1	26	45.5	2	•	5	*
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	33	55.6	33	57.7	-	-	•	-
Pneumonia and Influenza	24	40.4	24	42.0	-	-	•	-
Diabetes Mellitus	27	45.5	27	47.2	-	-	-	
Chronic Liver Disease and Cirrhosis	4	•	4		-	-	-	-
Homicide	-	-	-	-	-	-	-	-
Suicide	7	11.8	7	12.2	-	-	-	-
Atherosclerosis	2	*	2	•	-	-	-	-
AIDS	-	-		•	-		-	-

Note: Rate is per 100,000 estimated population in 1992 in specified group. Source: Office of the State Registrar and Division of Health Statistics, MDPH

Profile of Sanilac County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1992:	40.810	Total Live Births:	520	Total Deaths:	468
Rank Among Counties:	38	Teenage Mothers:	65	Infant Deaths:	7
Per Square Mile:	42.3	Low Weight Births:	40	Neonatal Deaths:	3
Per Square wife.	72.5	First Births:	188	Postneonatal Deaths:	4
		r iist Diitiis.	100	Perinatal Deaths:	3
1					3
_				Fetal Deaths:	,
MARRIAGE		DIVORCE			
Marriages:	312	Divorces:	159		
Marriage Rate:	15.3	Divorce Rate:	7.8		



NATALITY BY RACE OF MOTHER

	To	tal	w	hite	Bi	ack	Ott	
ļ	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	520	12.7	517	12.8	-	•	3	*
	To	xtal	w	hite	ВІ	ack	Ott	er
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	65	125.0	65	125.7	-	-	•	-
Low Weight	40	76.9	40	77.4	-	-	-	-
Under 1,500 Grams	2	*	2	•	-	-	-	-
< 38 Weeks Gestation	86	165.4	85	164.4	-	•	1	•
Prenatal Care Began in 1st Trimester	376	723.1	374	723.4	•	-	2	•

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tot	al .	Wh	ite	Bla	ck	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Infant Deaths	7	13.5	7	13.5	•	-	-	-	
Neonatal Deaths	3	•	3	•	-	-	-	•	
Postneonatal Deaths	4		4	•	-	-	-	•	
Perinatal Deaths	3	*	3	•	•	•	-	-	
Fetal Deaths	1	*	1	*	-	-	-	•	

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

Deaths	Total 468	All Rac Male 247	Fer	nale 21	Total 465	White Male 246	Female 219	Total -	Black Male -	Female -	Total 3	Other Male 1	Female 2
						A	ge 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	5	4	-	10	12	25	73	328	-
White Male	4	-		1	2	3	-	7	7	16	45	161	-
White Female	3	-	-	1	3	1	-	3	5	9	27	167	-
Black Male	-		_	-		-	-	•	-	-	-	-	-
Black Female				-	-		-	-		-	-	-	-
Other Male		-	-	1	-	-	-	-	-	-	-	-	-
Other Female	-	-	1		-	-	-	-	-	-	1	-	-

LEADING CAUSES OF DEATH

	T	otal	W	hite	Bla	ck	Children Ag	jes 1-19
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	468	1,146.7	465	1,149.7	-	-	9	75.6
Diseases of the Heart	170	416.6	170	420.3	-	-	•	
Malignant Neoplasms	103	252.4	103	254.7	•	-	-	
Cerebrovascular Diseases	47	115.2	46	113.7	•	-	-	
Accidents and Adverse Effects	22	53.9	20	49.4	-	-	6	50.4
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	12	29.4	12	29.7	-	-	-	
Pneumonia and Influenza	8	19.6	8	19.8	-	-	•	
Diabetes Melitus	19	46.6	19	47.0	-	-	•	•
Chronic Liver Disease and Cirrhosis	7	17.2	7	17.3	-	-	-	,
Homicide	1	*	1	•	-	-	•	
Suicide	6	14.7	6	14.8	-	-	1	•
Atherosclerosis	-	•	-	-	-	-	-	
AIDS	3	*	3	•	-	-	1	,

Note: Rate is per 100,000 estimated population in 1992 in specified group. Office of the State Registrar and Division of Health Statistics, MDPH Source:

Profile of Schoolcraft County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1992:	8,478	Total Live Births:	105	Total Deaths:	99
Rank Among Counties:	79	Teenage Mothers:	14	Infant Deaths:	1
Per Square Mile:	7.2	Low Weight Births:	7	Neonatal Deaths:	1
		First Births:	41	Postneonatal Deaths:	-
				Perinatal Deaths:	2
1				Fetal Deaths:	1
MARRIAGE		DIVORCE			
Marriages:	76	Divorces:	36		
Маггіаде Rate:	17.9	Divorce Rate:	8.5		



NATALITY BY RACE OF MOTHER

	To	tal	w	hite	BI	ack	Oti	ner
Live Births	Number 105	Rate 12.4	Number 94	Rate 11.9	Number -	Rate -	Number 11	Rate 18.8
	To	tal	w	hite	BI	ack	Ott	ner
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	14	133.3	12	127.7	•	-	2	•
Low Weight	7	66.7	7	74.5	•	•	-	-
Under 1,500 Grams	1	*	1	•	-	•	-	-
< 38 Weeks Gestation Prenatal Care Began in	10	95.2	9	95.7	•	-	1	•
1st Trimester	89	847.6	81	861.7	-	-	8	727.3

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tot	ai	Wh	ite	Bla	ck	Oth	er
	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 1994 in specified group.

MORTALITY

Deaths	Total 99	All Rad Male 53	e Fer	nale 16	Total 95	White Male 50	Female 45	Total -	Black Male -	Female -	Total 4	Other Male 3	Female 1
						A	ge 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	-	4	1	8	19	65	-
White Male	-	-	-	-	-	-	-	3	1	4	12	30	-
White Fernale	1	-	-	-	-	1	-	1	-	3	7	32	-
Black Male	-	-	-	-	•	-	-	•	-	-	-		-
Black Female	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	1	-	2	-
Other Female	•	•	-	-	-	-	•	•	-	-	•	1	•

LEADING CAUSES OF DEATH

	T	otal	w	hite	Bla	ck	Children Ag	es 1-19
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	99	1,167.9	95	1,205.3	-	-	-	-
Diseases of the Heart	22	259.5	21	266.4	-	-	-	-
Malignant Neoplasms	26	306.7	26	329.9	•	-	-	-
Cerebrovascular Diseases	6	70.8	5	•	-	•	•	
Accidents and Adverse Effects	7	82.6	6	76.1	-	-	-	-
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	7	82.6	7	88.8	•	•	-	-
Pneumonia and Influenza	3	*	3		-	•	-	•
Diabetes Mellitus	2	•	2	•	•	-	-	-
Chronic Liver Disease and Cirrhosis	2	•	2	•	-	-	-	-
Homicide	1	*	1	•	_	-	•	
Suicide	1	*	1	•	-	-	-	
Atherosclerosis	-	-	-	-	-	-	-	-
AIDS	•	-	-	•	-	-	-	-

Profile of Shiawassee County

POPULATION As of April 1, 1992: Rank Among Counties: Per Square Mile:	70,832 26 131.1	NATALITY Total Live Births: Teenage Mothers: Low Weight Births: First Births:	947 128 60 378	MORTALITY Total Deaths: Infant Deaths: Neonatal Deaths: Postneonatal Deaths: Perinatal Deaths: Fetal Deaths:	588 5 3 2 8
MARRIAGE Marriages: Marriage Rate:	578 16.3	DIVORCE Divorces: Divorce Rate:	306 8.6	i etai beatris.	•



NATALITY BY RACE OF MOTHER

	To	tal	w	hite	Bla	ack	Ott	
Live Births	Number 947	Rate 13.4	Number 943	Rate 13.5	Number 1	Rate *	Number 3	Rate
	To	otal	w	hite	Bl	ack	Oth	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	128	135.2	126	133.6	1	*	1	*
Low Weight	60	63.4	60	63.6	-	-	-	-
Under 1,500 Grams	6	6.3	6	6.4	-	-	-	-
< 38 Weeks Gestation	138	145.7	137	145.3	1	•	-	-
Prenatal Care Began in 1st Trimester	798	842.7	795	843.1		•	3	•

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tot	al	Wh	ite	Bla	ck	Oth	er
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	5		5	*	•	-	•	•
Neonatal Deaths	3	•	3	•	-	•	-	•
Postneonatal Deaths	2	•	2	•	-	-	-	•
Perinatal Deaths	8	8.4	7	7.4	-	-	•	•
Fetal Deaths	6	6.3	5	•	-	-	-	•

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

Deaths	Total 588	All Race Male 289	Fer	nale 99	Total 586	White Male 288	Female 298	Total -	Black Maie -	Female -	Total 2	Other Male 1	Female 1
						A	ge 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	•	1	6	3	6	7	23	39	90	407	-
White Male	3			1	4	2	4	5	15	25	50	179	-
White Female	2	1		-	2	1	2	2	7	14	39	228	-
Black Male	_		_	_	-	_	-		-	-	-	-	-
	-	-		-	_	_	_	_	-	-	_	-	-
Black Female	•	•	-	-	_	_	_	_	_		1	-	-
Other Male	-	-	-	-	-	•	_	•	1	_		_	
Other Female	-	-	-	-	-	-	-	•	,	-	-	_	

LEADING CAUSES OF DEATH

	To	tal	W	nite	Bla	ck	Children Ag	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	588	830.1	586	836.8	•	•	8	37.6
Diseases of the Heart	198	279.5	198	282.8	-	-	-	•
Malignant Neoplasms	140	197.6	140	199.9	-	•	1	•
Cerebrovascular Diseases	45	63.5	45	64.3	-	•	-	-
Accidents and Adverse Effects	23	32.5	23	32.8	-	-	4	•
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	29	40.9	29	41.4	-	•	•	•
Pneumonia and Influenza	25	35.3	25	35.7	-	•	•	•
Diabetes Mellitus	15	21.2	14	20.0	-	•	•	•
Chronic Liver Disease and Cirrhosis	7	9.9	7	10.0	-	•	-	-
Homicide	-	-	-	-	-	-	•	-
Suicide	. 4	•	4	•	-	-	2	•
Atherosclerosis	18	25.4	18	25.7	-	-	-	-
AIDS	1	*	1	•	-	•	-	-

Profile of Tuscola County

					
POPULATION		NATALITY		MORTALITY	
As of April 1, 1992:	56,130	Total Live Births:	732	Total Deaths:	491
Rank Among Counties:	32	Teenage Mothers:	102	Infant Deaths:	6
Per Square Mile:	69.1	Low Weight Births:	47	Neonatal Deaths:	4
i .		First Births:	259	Postneonatal Deaths:	2
i				Perinatal Deaths:	4
				Fetal Deaths:	2
MARRIAGE		DIVORCE			-
Marriages:	433	Divorces:	244		
Marriage Rate:	15.4	Divorce Rate:	8.7		



NATALITY BY RACE OF MOTHER

	To	Total		White		ack	Other		
į	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Live Births	732	13.0	723	13.2	4	*	3	•	
	To	otal	w	hite	Ві	ack	Ott	her	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio	
Teenage Mothers	102	139.3	99	136.9		-	1	*	
Low Weight	47	64.2	46	63.6	1	•	•	-	
Under 1,500 Grams	9	12.3	8	11.1	1	*	_	_	
< 38 Weeks Gestation	144	196.7	142	196.4	2	•	-	-	
Prenatal Care Began in									
1st Trimester	632	863.4	625	864.5	2	•	3	•	

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		Wh	ite	Bla	ck	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Infant Deaths	6	8.2	5	*	1	*	-		
Neonatal Deaths	4	•	3	*	1	*	-		
Postneonatal Deaths	2	•	2	*	-	-	-		
Perinatal Deaths	4	•	3	•	1	•	-		
Fetal Deaths	2	•	2	*	-	-	-	•	

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

		All Rac				White			Black			Other	
	Total	Male		male	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	491	273	2	18	483	265	218	7	7	-	1	1	-
						A	ge in Years						
H	<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	3	3	6	4	2	12	23	33	85	310	-
White Male	3	2	1	2	4	4	•	8	16	23	45	157	-
White Female	2	1	2	1	2	-	2	4	7	10	37	150	
Błack Male	1	1	-	•	•	•	-	-		-	2	3	-
Black Female	-	-	-	•	-	-	-	-	-	-	-	-	-
Other Male	-	-	-	-	-	-	-	-	-	-	1	-	-
Other Female	-	-	-	•	-	-	-	•	-	-	-	-	-

LEADING CAUSES OF DEATH

	To	tai	Wi	nite	В	ack	Children Ad	ies 1-19
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	491	874.7	483	878.7	7	1,323.3	16	95.4
Diseases of the Heart	170	302.9	170	309.3	-	-	•	•
Malignant Neoplasms	96	171.0	94	171.0	1	*	-	-
Cerebrovascular Diseases	49	87.3	48	87.3	1	*	1	•
Accidents and Adverse Effects	35	62.4	35	63.7		-	13	77.5
Chronic Obstructive Pulmonary Diseases								
and Allied Conditions	21	37.4	21	38.2	-	-	-	-
Pneumonia and Influenza	19	33.8	19	34.6	-	-	-	-
Diabetes Mellitus	16	28.5	16	29.1	•	-	-	-
Chronic Liver Disease and Cirrhosis	5	•	5	•	•	-	-	-
Homicide	3	*	3	•	-	-	1	*
Suicide	3		3	•	-	-		-
Atherosclerosis	3		2	*	1	*	-	-
AIDS	1	•	•	-	1	•	1	•

Note: Rate is per 100,000 estimated population in 1992 in specified group. Office of the State Registrar and Division of Health Statistics, MDPH

Profile of Van Buren County

POPULATION As of April 1, 1992: Rank Among Counties: Per Square Mile:	72,331 24 118.3	NATALITY Total Live Births: Teenage Mothers: Low Weight Births: First Births:	1,121 200 78 456	MORTALITY Total Deaths: Infant Deaths: Neonatal Deaths: Postneonatal Deaths: Perinatal Deaths:	667 4 2 2 2 8
MARRIAGE Marriages: Marriage Rate:	637 17.6	DIVORCE Divorces: Divorce Rate:	402 11.1	Fetal Deaths:	6



NATALITY BY RACE OF MOTHER

	To	Total		White		ack	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Live Births	1,121	15.5	1,027	15.4	82	17.1	11	10.9	
	To	xtai	w	hite	BI	ack	Oti	her	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio	
Teenage Mothers	200	178.4	168	163.6	30	365.9	2	*	
Low Weight	78	69.6	67	65.2	8	97.6	3	•	
Under 1.500 Grams	11	9.8	10	9.7	1	*	-	-	
< 38 Weeks Gestation	177	157.9	159	154.8	16	195.1	2	*	
Prenatal Care Began in 1st Trimester	809	721.7	757	737.1	45	548.8	7	636.4	

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Total		White		Bla	ck	Oth	er
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	4	*	4	•	-	-	-	-
Neonatal Deaths	2	•	2	*	•	-	-	-
Postneonatal Deaths	2	•	2	•	•	-	-	-
Perinatal Deaths	8	7.1	8	7.7	-	-	-	•
Fetal Deaths	6	5.3	6	5.8	•	-	-	-

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

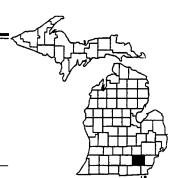
Deaths	Totai 667	All Race Male 328	Fer	nale 39	Total 599	White Male 295	Female 304	Total 65	Black Male 32	Female 33	Total 3	Other Male 1	Female 2
						A	ge in Years						
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60-69	70+	Unk
Total Deaths	4	2		6	3	4	6	14	30	53	113	432	-
	3	2		5	1	1	4	8	17	28	65	161	-
White Male	3	2	-	4	•	•	ż	5	10	19	36	228	-
White Female	1	-	-	,	- 1	<u> </u>	_	•		3	7	17	
Black Male	-	-	-	-	1	1	-	- :	3	3	5	24	-
Black Female	-	-	-	-	-	1	-	1	•	2	5	24	•
Other Male	-	-	-	-	-	-	-	-	-	1	-	-	-
Other Female	-	-	-	-	-	-	•	-	•	•	•	2	•

LEADING CAUSES OF DEATH

	To	tai	Wi	nite	BI	ack	Children Ag	es 1-19
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	667	922.1	599	900.3	65	1,358.7	11	50.1
Diseases of the Heart	249	344.3	226	339.7	23	480.8	-	
Malignant Neoplasms	143	197.7	124	186.4	18	376.3	1	•
Cerebrovascular Diseases	37	51.2	31	46.6	5	*	-	
Accidents and Adverse Effects	26	35.9	25	37.6	1	*	3	•
Chronic Obstructive Pulmonary Diseases						_		
and Allied Conditions	32	44.2	31	46.6	1		-	•
Pneumonia and Influenza	15	20.7	13	19.5	2	*	-	•
Diabetes Mellitus	25	34.6	22	33.1	2	•	-	
Chronic Liver Disease and Cirrhosis	7	9.7	7	10.5	-	-	•	
Homicide	2	*	1	•	1	*	1	•
Suicide	8	11.1	7	10.5	1	•	2	
Atherosclerosis	15	20.7	14	21.0	1	•	-	
AIDS	1	•	1	•	-	-	-	

Profile of Washtenaw County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1992:	288,025	Total Live Births:	4,001	Total Deaths:	1,622
Rank Among Counties:	6	Teenage Mothers:	349	Infant Deaths:	28
Per Square Mile:	405.5	Low Weight Births:	276	Neonatal Deaths:	21
•		First Births:	1,815	Postneonatal Deaths:	7
			-	Perinatal Deaths:	46
				Fetal Deaths:	28
MARRIAGE		DIVORCE			
Marriages:	2,198	Divorces:	1,117		
Marriage Rate:	15.3	Divorce Rate:	7.8		



NATALITY BY RACE OF MOTHER

	Total		w	hite	BI	ack	Other		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Live Births	4,001	13.9	2,931	12.2	637	19.4	266	18.6	
	To	tal	w	hite	Bi	ack	Oti	ner	
ļ	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio	
Teenage Mothers	349	87.2	194	66.2	145	227.6	3	*	
Low Weight	276	69.0	169	57.7	80	125.6	12	45.1	
Under 1,500 Grams	49	12.2	30	10.2	17	26.7	1	*	
< 38 Weeks Gestation Prenatal Care Began in	570	142.5	397	135.4	118	185.2	39	146.6	
1st Trimester	3,193	798.1	2,465	841.0	442	693.9	217	815.8	

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

[Tot	ai	Wh	ite	Bia	ck	Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	28	7.0	18	6.1	10	15.7	-	-
Neonatal Deaths	21	5.2	12	4.1	9	14.1		-
Postneonatal Deaths	7	1.7	6	2.0	1	•		-
Perinatal Deaths	46	11.4	31	10.5	13	20.2	1	•
Fetal Deaths	28	6.9	20	6.8	6	9.3	1	•

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

		All Rac	:es			White			Black			Other	
	Total	Male	Fer	male	Total	Male	Female	Total	Male	Female	Total	Male	Female
Deaths	1,622	790	8	32	1,430	689	741	177	92	85	15	9	6
						A	ge 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	28	1	4	1	13	17	13	55	103	113	233	1,040	1
White Male	10	-	-	•	6	10	8	40	45	54	121	394	1
White Female	8	-	4	1	4	4	1	8	40	35	83	553	
Black Maie	5	1	-	4	3	3	3	4	10	18	14	31	-
Black Female	5	-	-	-	-	-	1	2	6	5	12	54	
Other Male	-	-	-	-	_		-	-	1	-	2	6	
Other Female	•	-	-	-	-	-	•	1	1	1	1	2	-

LEADING	CAUSES	OF DEAT	ш
LEADING	CAUSES	OF DEAT	п

All Causes	Number	Rate	Number	Rate	Number	Rate	Children Ag Number	•
All Causes	4 000					naic	Number	Rate
	1,622	563.1	1,430	593.5	177	539.4	19	25.8
Diseases of the Heart	469	162.8	411	170.6	51	155.4	_	-
Malignant Neoplasms	374	129.8	335	139.0	37	112.8	2	•
Cerebrovascular Diseases	141	49.0	122	50.6	18	54.9	-	-
Accidents and Adverse Effects	72	25.0	68	28.2	3	•	9	12.2
Chronic Obstructive Pulmonary Diseases							•	
and Allied Conditions	74	25.7	70	29.1	3	*		-
Pneumonia and Influenza	58	20.1	55	22.8	3	•	_	-
Diabetes Mellitus	49	17.0	40	16.6	9	27.4		-
Chronic Liver Disease and Cirrhosis	17	5.9	15	6.2	2	*		_
Homicide	18	6.2	11	4.6	7	21.3	3	*
Suicide	24	8.3	20	8.3	4	*	2	•
Atherosclerosis	9	3.1	9	3.7	-	-	-	
AIDS	27	9.4	17	7.1	10	30.5	-	-

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

Profile of Wayne County

POPULATION As of April 1, 1992: Rank Among Counties: Per Square Mile:	2,096,179 1 3,407.9	NATALITY Total Live Births: Teenage Mothers: Low Weight Births: First Births:	34,816 5,730 3,750 13,163	MORTALITY Total Deaths: Infant Deaths: Neonatal Deaths: Postneonatal Deaths: Perinatal Deaths: Fetal Deaths:	21,349 427 282 145 419 181
MARRIAGE Marriages: Marriage Rate:	11,015 10.5	DIVORCE Divorces: Divorce Rate:	7,540 7.2		



NATALITY BY RACE OF MOTHER

	To	ıtal	w	hite	Bi	ack	Oti	ner
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	34,816	16.6	16,416	13.7	17,584	20.2	687	21.6
	To	tal	w	hite	BI	ack	Ott	ner
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	5,730	164.6	1,571	95.7	4,088	232.5	61	88.8
Low Weight	3,750	107.7	1,060	64.6	2,625	149.3	51	74.2
Under 1.500 Grams	857	24.6	207	12.6	642	36.5	4	*
< 38 Weeks Gestation	7,609	218.5	2,727	166.1	4,756	270.5	111	161.6
Prenatal Care Began in 1st Trimester	25,484	732.0	13,781	839.5	11,117	632.2	522	759.8

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

	Tot	ai	Whi	ite	Black		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	427	12.3	97	5.9	328	18.7	2	•
Neonatal Deaths	282	8.1	55	3.4	226	12.9	1	*
Postneonatal Deaths	145	4.2	42	2.6	102	5.8	1	*
Perinatal Deaths	419	12.0	105	6.4	302	17.1	6	8.7
Fetal Deaths	181	5.2	61	3.7	109	6.2	5	•

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

Deaths	Total 21,349	All Races Male 11,154	Fer	nale 191	Total 12,131	White Male 5,994	Female 6,136	Total 9,095	Black Male 5,085	Female 4,007	Total 114	Other Male 70	Female 44
						A	ge 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	427	85	30	53	189	272	290	980	1,513	1,889	3,526	12,089	6
White Male	53	15	8	14	37	50	76	265	333	542	1,154	3,445	2
White Female	43	13	2	4	7	19	20	96	184	320	822	4,604	2
	183	34	13	20	118	169	151	408	613	619	880	1,876	1
Black Male		23	13	14	25	32	43	199	375	387	643	2,116	1
Black Female	142	23	,	4	23	1		5	5	13	15	27	-
Other Male	2	-	-	1			_	-	2	.8	10	18	_
Other Female	•	•	-	-	7	1	-	4	2	•	10		

LEADING CAUSES OF DEATH

	To	otal	w	hite	ВІ	ack	Children Ag	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All Causes	21,349	1.018.5	12,131	1,014.8	9,095	1,046.7	357	60.2
Diseases of the Heart	7,445	355.2	4,566	382.0	2,845	327.4	9	1.5
Malignant Neoplasms	4.873	232.5	2,971	248.5	1,874	215.7	30	5.1
Cerebrovascular Diseases	1,269	60.5	703	58.8	560	64.4	4	•
Accidents and Adverse Effects	560	26.7	300	25.1	252	29.0	77	13.0
Chronic Obstructive Pulmonary Diseases and Allied Conditions	661	31.5	449	37.6	208	23.9	3	•
Pneumonia and Influenza	688	32.8	390	32.6	294	33.8	4	•
Diabetes Mellitus	591	28.2	341	28.5	244	28.1	•	-
Chronic Liver Disease and Cirrhosis	387	18.5	206	17.2	179	20.6	-	-
Homicide	654	31.2	107	9.0	545	62.7	124	20.9
Suicide	221	10.5	148	12.4	70	8.1	22	3.7
Atherosclerosis	102	4.9	69	5.8	31	3.6	-	-
AIDS	403	19.2	85	7.1	317	36.5	3	•

Note: Rate is per 100,000 estimated population in 1992 in specified group.

Source:

Profile of Wexford County

POPULATION		NATALITY		MORTALITY	
As of April 1, 1992:	27,099	Total Live Births:	400	Total Deaths:	284
Rank Among Counties:	48	Teenage Mothers:	53	Infant Deaths:	3
Per Square Mile:	47.9	Low Weight Births:	20	Neonatal Deaths:	
·		First Births:	140	Postneonatal Deaths:	3
1				Perinatal Deaths:	2
				Fetal Deaths:	2
MARRIAGE		DIVORCE			
Marriages:	273	Divorces:	187		
Marriage Rate:	20.1	Divorce Rate:	13.8		



NATALITY BY RACE OF MOTHER

	To	tal	w	hite	BI	ack	Ot	her
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births	400	14.8	391	14.6	-	-	8	26.1
	To	tal	w	hite	В	ack	Oti	her
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Teenage Mothers	53	132.5	52	133.0	•	-	1	*
Low Weight	20	50.0	19	48.6	-	-	1	
Under 1,500 Grams		-	•	-	-	-	<u>-</u>	_
< 38 Weeks Gestation	48	120.0	47	120.2	•	•	1	*
Prenatal Care Began in								
1st Trimester	295	737.5	288	736.6	-	•	7	875.0

Note: Rate is per 1,000 estimated population in 1992 and ratio per 1,000 live births in 1994 in specified group.

INFANT AND PERINATAL MORTALITY BY RACE

1	Tot	al	Wh	ite	Blad	Black (
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Infant Deaths	3	*	3	•	•	•	-	-
Neonatal Deaths	•	-	-	•	•	-	-	
Postneonatal Deaths	3	•	3	•	-	-	-	
Perinatal Deaths	2	•	1	•	1	•	-	_
Fetal Deaths	2	*	1	•	i	•	-	-

Note: Rate is per 1,000 live births or total births in 1994 in specified group.

MORTALITY

Deaths	Total 284	All Rac Male 165	Fer	male 19	Total 280	White Male 164	Female 116	Total -	Black Male -	Female -	Total 3	Other Maie 1	Female 2
						A	ge 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	2	8	14	21	42	188	-
White Male	-	-	1	-	3	2	2	6	8	15	27	100	-
White Female	3	-	-	-	-		-	1	5	6	14	87	-
Black Male		-	-	-	-		-	-	-	-	•		
Black Female		-	-	-		-	-	-	-	-	-	-	-
Other Male		-	_	-	-	-	-	-	-		1		
Other Female	-	-	-	-	-	-	-	1	1	-	-	-	-

LEADING CAUSES OF DEATH

	T	Total		White		Black		Children Ages 1-19	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
All Causes	284	1,048.0	280	1,046.7	-	•	4	•	
Diseases of the Heart	93	343.2	92	343.9	-	-	1	•	
Malignant Neoplasms	66	243.6	65	243.0	-	-	1		
Cerebrovascular Diseases	27	99.6	27	100.9	-		-		
Accidents and Adverse Effects	15	55.4	15	56.1	-	-	2	,	
Chronic Obstructive Pulmonary Diseases									
and Allied Conditions	16	59.0	16	59.8	-		•		
Pneumonia and Influenza	10	36.9	9	33.6	-	-	_		
Diabetes Mellitus	6	22.1	5		_	-	-		
Chronic Liver Disease and Cirrhosis	4	*	4	*	-		-		
Homicide	-	-	-	-	-		-		
Suicide	8	29.5	8	29.9	-	-			
Atherosclerosis	2		2	*		_			
AIDS	_	_	_	_	_	_	_		

Note: Rate is per 100,000 estimated population in 1992 in specified group. Office of the State Registrar and Division of Health Statistics, MDPH

NATALITY SECTION I

NATALITY

KEY TRENDS

Demographic Between 1900 and 1994, 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 in any year since 1972. There was a 4.2 percent drop in the number of total births between 1992 and 1994.

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 rose after 1985, peaked in 1990 and have generally declined since then. During this time period there has been an increase in the percent of births to minority race populations from 18.0 percent in 1974 to 22.5 percent of the births in 1994.

Since 1980 birth rates for white teenage women 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 43.5 in 1991. Rates for black teenage women have fluctuated from a low of 80.5 in 1983 to a high of 135.6 in 1989. The rates have declined to 41.1 and 99.4 in 1994 for white and black teens, respectively.

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 80 percent in 1994. In 1994, the highest percentages of mothers who initiated care early occurred among white and Asian and Pacific Islander mothers and mothers of Arab ancestry (79 to 85 percent). The lowest percentages occurred among black and American Indian mothers and mothers of Hispanic ancestry (64 to 75 percent).

An Overview, 1994

Total Resident Births (live births & fetal deaths)	138,575
Total Resident Live Births	137,844
Resident Live Births per Day	377.7
Total Resident Fetal Deaths	731
Resident Fetal Deaths per Day	2.0
Crude Birth Rate	14.6
Fertility Rate	62.4
Fetal Death Ratio	5.3
First Births (Percent of Total Live Births)	39.6
Median Birth Weight in Grams (Live Births)	3,374
Median Birth Weight in Grams (Fetal Deaths)	880
Low Weight Live Births	10,765
Low Weight Birth Ratio	78.1
Median Age of Mother (Live Births)	27
Median Age of Mother (Fetal Deaths)	28
Live Births with Congenital Anomalies	1,240
Congenital Anomalies per 10,000 Live Births	90.0
Live Births with No Prenatal Care	1,933
No Prenatal Care Ratio	14.0
Home Births	851
Live Born Sets of Twins	1,856
Live Born Sets of Triplets	65
Live Born Multiple Births of Four or More	4
Male Live Births per 100 Female Live Births	105.5

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

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 7.8 percent in 1994. The percent for white mothers decreased from 6.6 in 1970 to 6.2 in

1994, while the percent for black mothers rose from 14.3 in 1970 to 14.4 in 1994. Of more concern is the percent of births with extremely low birth weight (less than 750 grams) where about 3/4 of the live births will die within one year, usually in the first day of life. While 0.2 to 0.5 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 1994, 1.3 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 1994 18.5 percent of the pregnant Michigan women used tobacco during their pregnancy.

Tobacco use during pregnancy was highest among American Indian mothers (35.9 percent). Less than 3 percent of the Asian and Pacific Islander mothers and about 6 percent of the mothers of Arab ancestry smoked. About 11 percent of the mothers of Hispanic ancestry smoked, while 17 and 19 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). Between 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 births has declined since 1990 to 137.844 in 1994.

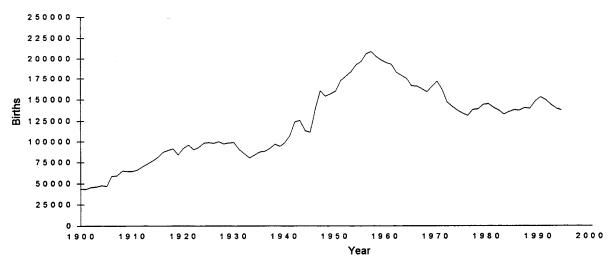
United States The national pattern was similar to that observed in Michigan. For 1994, the provisional figure was 3,979,000, a decrease of 0.5 percent from 1993.

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 and a low of 14.5 in 1983. From 1989 through 1991 the crude birth rate was about 16 live births per 1,000 residents. By 1994 the rate had declined to 14.6.

Table 1.1
Live Births and Crude Birth Rates
Michigan and United States Residents
Selected Years, 1900 - 1994

United Sta	ates	Year	Mich	gan
Number	Rate	Icai	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	15.6	1983	133,026	14.5
3,669,141	15.6	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	16.0	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	15.9
4,065,014	15.9	1992	143,827	15.2
4,000,240	15.5	1993	139,560	14.8
3,979,000Pr.	15.3Pr.	1994	137,844	14.6

Figure 1.1 **Live Births** Michigan Residents, 1900-1994



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

Figure 1.2 Live Birth Rates Michigan Residents, 1900-1994 and United States¹ Residents, 1909-1994 Michigan **United States** 1900 1910 1920 1930 1940 1950 1960 1970 1980 1990 2000

Year

35

30

25

Rate Per 1,000 Population

United States rates prior to 1909 are not available.
 United States rate for 1994 is provisional.

AGE, RACE AND ANCESTRY

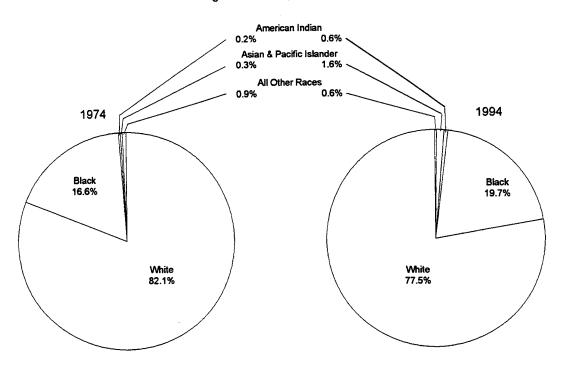
Racial Composition As part of the changing demographics in Michigan, the racial composition of women having live births in Michigan changed over the period 1974 through 1994 (Figure 1.3). Live births to white women declined from 82.1 percent of

all live births in 1974 to 77.5 percent in 1994. The percentages of live births born to mothers of minority race groups increased from 18.0 to 22.5 percent during the twenty year interval.

Figure 1.3

Live Births by Mother's Race or National Origin

Michigan Residents, 1974 and 1994



Note: In 1973 Korean race was included in all other races and Asian Indian race was included in white.

Mother's Age In 1994, 37.7 percent of all live births were to women less than 25 years of age (Table 1.2). Only 1.4 percent occurred to women over 39 years of age. The median age of Michigan mothers was 27 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 18 and 1 in 15 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, 1994

					•	R	ace¹							Ances	stry	
Age of Mother	Tota	i	Whi	te	Blac	:k	Amer. Ir	ndian	Asian &	k P.I.	Oth	ner	Arai	,	Hispa	ınic
in Years	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
< 15	397	0.3	123	0.1	269	1.0	2	•	2	•	•	-	-	-	26	0.6
15 - 19	17,051	12.4	10,386	9.7	6,322	23.3	171	20.3	124	5.6	9	10.3	175	6.8	892	20.1
20 - 24	34,448	25.0	24,547	23.0	9,104	33.6	290	34.5	373	16.9	22	25.3	639	24.7	1,400	31.6
25 - 29	39,789	28.9	32,788	30.7	5,774	21.3	209	24.9	782	35.4	23	26.4	804	31.1	1,061	23.9
30 - 34	32,148	23.3	27,383	25.6	3,721	13.7	113	13.4	656	29.7	19	21.8	599	23.2	740	16.7
35 - 39	12,066	8.8	10,021	9.4	1,649	6.1	51	6.1	221	10.0	13	14.9	277	10.7	274	6.2
40 +	1,912	1.4	1,558	1.5	280	1.0	5		51	2.3	1	•	87	3.4	40	0.9
Not Stated	33	0.0	22	0.0	10	0.0	-	-	-	-	-	-	1	•	2	•
Total	137,844	100.0	106,828	100.0	27,129	100.0	841	100.0	2,209	100.0	87	100.0	2,582	100.0	4,435	100.0
Median Age at Last Birthday	27		27		23		24		29		28	.	27		24	.1

¹ Live births with race unknown are in the "Total" column only.

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 1994 was 49.3 percent below the 1960 rate.

Total Fertility Figure 1.4 displays the changes in the total fertility rate between 1920 and 1994 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.

Michigan's total fertility rate has generally paralleled that of the nation. The Michigan rate dropped

Table 1.3
Fertility Rates
Michigan and United States Residents
Selected Years, 1900-1994

Ocicolog	rears, rac	70 100 1
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
67.3	1981	63.2
67.3	1982	61.7
65.7	1983	59.3
65.5	1984	63.1
66.3	1985	63.8
65.4	1986	63.2
65.8	1987	64.3
67.3	1988	63.9
69.2	1989	67.9
70.9	1990	69.1
69.6	1991	62.7
68.9	1992	65.1
67.6	1993	63.2
67.1Pr.	1994	62.4

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

Figure 1.4 Total Fertility Rates¹ Michigan Residents, 1920-1994 and United States Residents, 1920-1993 4500 4000 3500 Rate Per 1,000 Population 2500 2000 Replacement level 1500 1000 Michigan 500 **United States** 1990 2000 1980 1930 1940 1950 1960 1970 1920 Year

¹ Total fertility rate is total children to 1,000 women in their lifetime assuming constant live birth rates.

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 1994 the total fertility rate in Michigan declined to a low of 1,709.5 in 1976 and increased to 1,868.5 in 1994. The rate was 2,046.0 in 1993 for the United States. The national rates have been higher than the Michigan rates since 1982.

In 1990, for the first time since 1973, both Michigan and national total fertility rates were above 2,000. In 1992 through 1994 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 1974 through 1994, there were 1,317,043 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 women in Michigan for the period since 1970.

The fertility rate for black women was 40.5 percent above the rate for white women in 1970, fell sharply to 10.8 percent higher in 1985 and increased to 31.2 percent higher in 1994. Since 1970 the fertility rate for black women has declined 37.3 percent compared with a 32.9 percent drop for white women.

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 66.7 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, 1970-1994

nongan Kesi	Jenis, Selected	Tears, 1970-198
Year	Fertility	Rate
Teal	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	59.2	81.2
1992	61.5	84.6
1993	59.8	80.6
1994	59.0	77.4
% Change		
1970-1994	-32.9	-37.3

AGE-SPECIFIC LIVE BIRTH RATES

All Women Figure 1.5 displays age-specific live birth rates for the period 1970-1994. 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 53.7 in 1994.

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 60.5 and 86.5 percent, respectively, by 1994.

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 1980-1994.

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 1994 rates for white and black females increased for all age groups, except for white females ages 20 to 29.

For women under age 20, birth rates decreased for both race groups through 1983, increased from 1984 through 1989 for black teenagers and from 1984 through 1991 for white teenage women. The rates decreased in 1992 and 1993 for white teens, but increased slightly in 1994. The rates decreased for black teens from 1990 through 1994.

The pattern observed for black teens between 1980 and 1994 was mirrored by black women between ages 20 and 29. In 1994 the rate for black teens fell below the rate for black women age 25-29 for the first time since 1986.

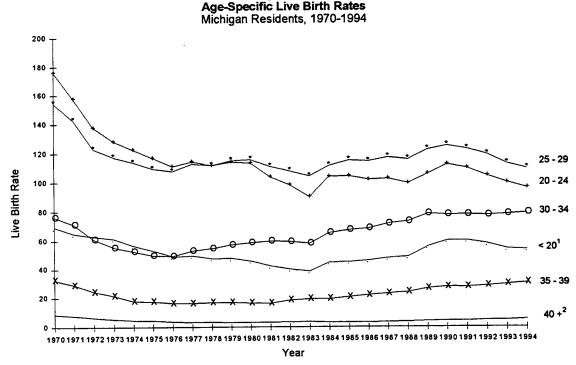


Figure 1.5

Based on live births to women under 20 and population of females 15-19.
 Based on live births to women 40 and over and population of females 40-44.

200 180 160 140 120 Live Birth Rate 25 - 29 100 20 - 24 80 30 - 34 60 < 20¹ 35 - 39 20 40 +² 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 Year

Figure 1.6 Age-Specific Live Birth Rates to White Mothers Michigan Residents, 1980-1994

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 of Health Statistics, MDPH

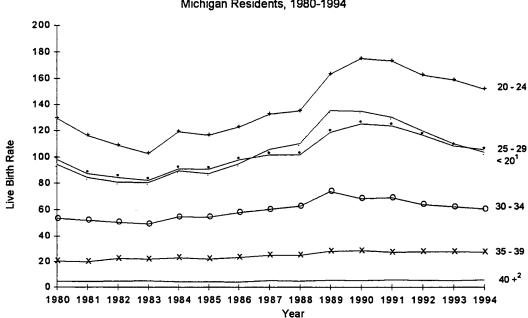


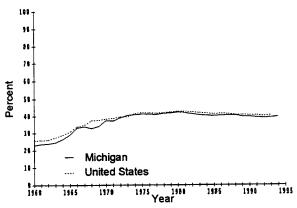
Figure 1.7 Age-Specific Live Birth Rates to Black Mothers Michigan Residents, 1980-1994

Based on live births to women under 20 and population of females 15-19.
 Based on live births to women 40 and over and population of females 40-44.

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 1994. 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 39.6 in 1994.

Figure 1.8 First Births as a Percentage of All Live Births Michigan Residents, 1960-1994 and United States Residents, 1960-1993



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

INTERPREGNANCY TIME PERIOD

In 1994 women having live births whose most recent prior termination was a fetal death had a median time span of 1 year and 9 months between their previous termination and a live birth (Table 1.5). This compares to a median of 2 years 8 months for women having prior live births. A spacing of less than one year was observed for 12.7 percent of all women reporting their most recent prior pregnancy was a fetal death, but only 1.8 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, 1994³

Time Span	Tota	ı	Prior Fetal	Death	Prior Live	Birth
In Years	Number	%	Number	%	Number	%
Total	90,218	100.0	21,577	100.0	68,641	100.0
<1	4,001	4.4	2,743	12.7	1,258	1.8
1 < 2	28,160	31.2	8,982	41.6	19,178	27.9
2 < 3	21,399	23.7	3,352	15.5	18,047	26.3
3 < 5	20,882	23.1	3,027	14.0	17,855	26.0
5 +	15,776	17.5	3,473	16.1	12,303	17.9
Median Time Span	2 yrs.,	6 mos	1 yrs., 9	mos.	2 yrs., 8	mos.

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.

⁵ 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.

PRENATAL CARE

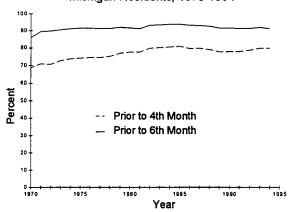
Trend Pregnant women are encouraged to initiate prenatal care during the first trimester and to receive care on a regular, prescribed basis until delivery occurs. The percentage of women delivering live born infants who initially obtained prenatal care in the first trimester of pregnancy increased steadily 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 80.0 percent in 1994.

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 1994, 84.2 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, 79.0 and 85.5 percent respectively. Lower percentages of black and American Indian mothers and mothers of Hispanic ancestry initiated care early, 64.0 to 74.6 percent.

Over 80 percent of live births to women aged 25 or over were to women who sought care promptly. The proportion fell to 39.5 percent for women under 15 years. About six in ten (62.8 percent) infants born to mothers 15-19 years of age were to mothers who received care early.

Figure 1.9

Percent of Women Having Live Births Who
Received Care Prior to the 4th Month and
6th Month of Pregnancy
Michigan Residents, 1970-1994



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

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 and mothers of Arab ancestry, next highest for Asian and Pacific Islander mothers. In each age group lower proportions of American Indian mothers, mothers of Hispanic ancestry and black mothers initiated care early.

Table 1.6

Numbers and Percents ¹of Live Births with Prenatal Care

Beginning in the First Trimester by Age, Race and Ancestry of Mother

Michigan Residents, 1994

A f					Race ²									Ancestry				
Age of Mother in Years	Tota	l	Whit	е	Black	k	Amer. In	dian	Asian &	P.I.	Othe	er	Arab		Hispa	nic		
in rears	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%		
< 15	157	39.5	48	39.0	107	39.8	1		1		_	-	-	_	12	46.2		
15 - 19	10,704	62.8	6,982	67.2	3,509	55.5	117	68.4	66	53.2	4		136	77.7	530	59.4		
20 - 24	25,656	74.5	19,352	78.8	5,760	63.3	206	71.0	271	72.7	13	59.1	5 53	86.5	913	65.2		
25 - 29	33,860	85.1	28,839	88.0	4,048	70.1	170	81.3	640	81.8	16	69.6	686	85.3	783	73.8		
30 - 34	28,037	87.2	24,611	89.9	2,613	70.2	91	80.5	539	82.2	16	84.2	531	88.6	575	77.7		
35 - 39	10,252	85.0	8,802	87.8	1,134	68.8	38	74.5	194	87.8	11	84.6	227	81.9	214	78.		
40 +	1,558	81.5	1,320	84.7	189	67.5	4	•	35	68.6	1		74	85.1	30	75.0		
Not Stated	26	78.8	18	81.8	8	80.0	-	-	-	-	-	-	-	-	2	•		
Total	110,250	80.0	89,972	84.2	17,368	64.0	627	74.6	1,746	79.0	61	70.1	2,207	85.5	3,059	69.0		

¹ Percent denominators obtained from column numbers in Table 1.2

² Live births with race unknown are in the "Total" column only.

No Care In 1994, 1,933 resident live births, or 14.0 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 (38.5 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 74.3 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 (78.9 and 80.7 percent) were higher than the corresponding proportions for black and American Indian mothers (56.8 and 68.1 percent) and mothers of Hispanic ancestry (63.0 percent).

Inadequate care was received by the mothers of 9.4 percent of all live births. The proportions of live births to mothers who received inadequate care were 6.5 percent for white mothers, 9.6 to 13.7 percent for Asian and Pacific Islander mothers, American Indian mothers and mothers of Arab and Hispanic ancestry and 19.9 percent for black mothers.

Table 1.7

Live Births and Birth Ratios with No Prenatal Care by Age and Race of Mother

Michigan Residents, 1994

Age					Race of	Mother				
of Mother	Tota	ıl	Whit	e	Blac	ck	All O	ther	Not St	ated
in Years	Number	Ratio ¹	Number	Ratio ¹	Number	Ratio ¹	Number	Ratio ¹	Number	Ratio ¹
<15	17	42.8	6	48.8	10	37.2	1	*	_	-
15-19	468	27.4	194	18.7	267	42.2	7	23.7	-	-
20-24	571	16.6	255	10.4	298	32.7	17	25.6	1	*
25-29	433	10.9	195	5.9	227	39.3	10	10.1	1	*
30-34	268	8.3	115	4.2	148	39.8	3	*	2	*
35-39	146	12.1	65	6.5	80	48.5	1	*	-	-
40+	27	14.1	13	8.3	13	46.4	1	*	-	-
Not Stated	3	*	2	*	1	*	-	-	-	-
Total	1,933	14.0	845	7.9	1,044	38.5	40	13.1	4	*
Median Age at Last Birthday		23		24		23		24		29

¹ Ratio denominators obtained from column numbers in Table 1.2.

Although the mothers of 80.0 percent of all live births received prenatal care during the first trimester, only 74.3 percent received adequate care as defined by the Kessner Index. Overall, this means that of the mothers who initiated prenatal care most promptly, 7.1 percent (7,878 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 (34,792 women), 22.6 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, 1994

									•									
Level of			,			Race ²								Ancestry				
Prenatal Care	Tota	1	Whit	e	Blac	k	Amer. In	dian	Asian 8	P.I.	Oth	ег	Ara	b	Hispa	nic		
(Kessner Index ¹)	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%		
Adequate	102,372	74.3	84,297	78.9	15,409	56.8	573	68.1	1,607	72.7	57	65.5	2,083	80.7	2,796	63.0		
Intermediate	21,865	15.9	15,114	14.1	6,130	22.6	184	21.9	354	16.0	19	21.8	301	11.7	1,006	22.7		
Inadequate	12,927	9.4	6,959	6.5	5,392	19.9	81	9.6	236	10.7	11	12.6	193	7.5	609	13.7		
Unknown	680	0.5	458	0.4	198	0.7	3	*	12	0.5		-	5	•	24	0.5		
Total	137,844	100.0	106,828	100.0	27,129	100.0	841	100.0	2,209	100.0	87	100.0	2,582	100.0	4,435	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.)

Live births with race unknown are in the "Total" column only.

BIRTH WEIGHT

The mean weight for all live births was 3,333 grams or approximately 7 pounds 6 ounces (Table 1.9). The median weight was 3,374 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 170 and 126 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 (1.3 percent). Other race and ancestry groups had from 0.2 to 0.5 percent of the births below 750 grams. Infants born with this extremely low birth weight have very high mortality rates (over 65 percent mortality).

Table 1.9

Numbers and Percents of Live Births by Birth Weight, Race and Ancestry of Mother

Michigan Residents, 1994

						Ra	ce ¹							Ances	stry			
Weight at Birth	Total		White	,	Black	ζ .	Amer. In	dian	Asian &	P.I.	Othe	er Ara		er Ara)	Hispar	nic
in Grams	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%		
< 750	724	0.5	352	0.3	350	1.3	2	•	9	0.4	3		10	0.4	24	0.5		
750 - 1,499	1,477	1.1	864	0.8	593	2.2	6	0.7	8	0.4	1	•	26	1.0	40	0.9		
1,500 - 2,499²	8,564	6.2	5,364	5.0	2,959	10.9	47	5.6	140	6.3	6	6.9	107	4.1	211	4.8		
2,500 +	126,789	92.0	100,068	93.7	23,141	85.3	785	93.3	2,048	92.7	77	88.5	2,434	94.3	4,155	93.7		
Not Stated	290	0.2	180	0.2	86	0.3	1	•	4	•	-		5	•	5	•		
Total	137,844	100.0	106,828	100.0	27,129	100.0	841	100.0	2,209	100.0	87	100.0	2,582	100.0	4,435	100.0		
Mean Weight	3,33	3	3,400)	3,07	5	3,36	66	3,24	3	3,26	88	3,32	24	3,34	11		
Median Weight	3,37	4	3,430	ס	3,14	7	3,38	16	3,26	0	3,38	37	3,37	70	3,37	74		

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.

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.

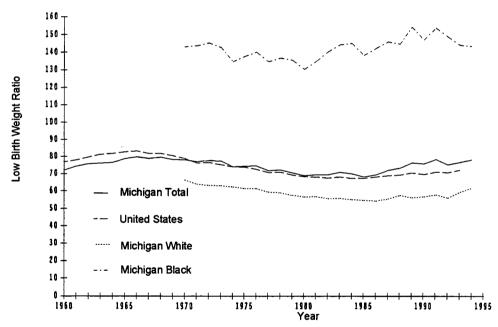
Figure 1.10 displays the percent of low birth weight infants born to Michigan and the United

States residents over the last thirty-five years. In 1960 7.2 percent of the live 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 7.8 in 1994. The pattern for the United States was similar between 1970 and 1985. By 1993 the low birth weight percentage for the nation had increased to 7.2 percent.

Figure 1.10

Low Birth Weight¹ Ratios

Michigan Residents by Race, 1960-1994 and United States Residents, 1960-1993



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.

The low birth weight percentage for infants of black mothers was 14.4 percent compared with 5.5 to 6.5 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 between 1.3 and 2.1 times higher for infants born to mothers with inadequate care than to mothers with adequate prenatal care, with the exception of mothers of Arab ancestry, whose ratios were nearly equal. The ratios were generally 1.0 and 2.1 times higher for infants born to women with intermediate care than for women with adequate care.

At birth, 14.4 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 (12.6) 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 1.9 to 2.6 times higher for infants born to black women with adequate care than for corresponding women of almost all 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. 1994

					141	ioing.	uii 1103	4011	3, 1007									
Level of						Ra	ce ⁴						Ancestry					
Prenatal Care	Total		White	е	Blac	k	Amer. In	dian	Asian &	P.I.	Othe	er	Arat	Arab		nic		
(Kessner Index ³)	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%		
Adequate	6,808	6.7	4,686	5.6	1,944	12.6	34	5.9	108	6.7	8	14.0	102	4.9	165	5.9		
Intermediate	2,005	9.2	1,118	7.4	844	13.8	11	6.0	27	7.6	-	-	31	10.3	62	6.2		
Inadequate	1,866	14.4	730	10.5	1,077	20.0	10	12.3	20	8.5	2	٠	9	4.7	47	7.7		
Unknown	86	12.6	46	10.0	37	18.7	-	-	2	•	_	-	-	-	1	•		
Total	10,765	7.8	6,580	6.2	3,902	14.4	55	6.5	157	7.1	10	11.5	142	5.5	275	6.2		

1 Less than 2,500 grams.

² Percent denominators obtained from column numbers in Table 1.8.

⁴ Live births with race unknown are in the "Total" column only.

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).

CONGENITAL ANOMALIES

One or more congenital anomalies were reported on the birth certificate for 1,240 of the 137,844 resident live births in 1994 (Table 1.11). This translates to a rate of 90.0 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 rates based on check-box format reporting are not comparable to rates obtained in previous years by literal entries.

While the check-box reporting format may help reduce the level of under reporting 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 98.1 per 10,000 live births to white mothers was 71.8 percent higher than the rate of 57.1 for live births to black mothers and 6.2 percent higher than the rate of 92.4 for live births to mothers of races other than black or white.

The rates for all races varied with the age of the mother. Rates generally were higher for mothers under 20 years of age and over 40 years of age.

Table 1.11

Live Births with Congenital Anomalies Reported and Congenital Anomaly Rates¹

by Age and Race of Mother

Michigan Residents, 1994

Age					Race of	Mother			·	
of Mother	Tot	al	Wh	ite	Blad	ck	All O	ther	Unkno	own
in Years	Number	Rate ²	Number	Rate ²	Number	Rate ²	Number	Rate ²	Number	Rate ²
<15	2	*	_	_	2	*	_	-	_	_
15-19	173	101.5	130	125.2	37	58.5	5	*	1	*
20-24	313	90.9	257	104.7	46	50.5	10	146.0	_	-
25-29	347	87.2	307	93.6	33	57.2	4	•	3	
30-34	285	88.7	253	92.4	22	59.1	8	101.5	2	*
35-39	102	84.5	85	84.8	14	84.9	2	*	1	*
40+	17	88.9	15	96.3	1	+	-	_	1	*
Not Stated	1	*	1	*	-	-	-	-	-	-
Total	1,240	90.0	1,048	98.1	155	57.1	29	92.4	8	106.7
Median Age at Last Birthday	27	L	27		23	L	24		31	I

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 35,583 deliveries (25.8 percent) reported with one or more complications of labor and/or delivery in 1994 (Table 1.12). Among the most commonly reported complications were moderate/heavy meconium (7,882 cases), fetal distress (6,305 cases), breech/malpresentation of fetus (5,916 cases), premature rupture of membranes (5,246 cases) and dysfunctional labor (5,170 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.

Table 1.12

Numbers and Percents of Live Births by

Complications of Labor/Delivery, Race and Ancestry of Mother

Michigan Residents, 1994

Complications of						Ra	ace ¹							An	cestry	
Labor/Delivery	Tota	ıl	Whi	te	Blad	ck	Amer. I	ndian	Asian	& P.I.	Oth	er 🖇	Ara	≱b	Hispa	nic
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Meconium, moderate/heavy	7,882	5.7	5,468	5.1	2,191	8.1	52	6.2	120	5.4	6	6.9	104	4.0	294	6.6
Fetal distress	6,305	4.6	4,935	4.6	1,195	4.4	27	3.2	81	3.7	9	10.3	118	4.6	173	3.9
Breech/malpresentation	5,916	4.3	4,950	4.6	793	2.9	44	5.2	93	4.2	4		97	3.8	169	3.8
Premature rupture of membranes (>12 hours)	5,246	3.8	4,174	3.9	866	3.2	33	3.9	127	5.7	7	8.0	70	2.7	179	4.0
Dysfunctional labor	5,170	3.8	4,260	4.0	726	2.7	36	4.3	97	4.4	4	•	52	2.0	161	3.6
Cephalopelvic disproportion	3,175	2.3	2,789	2.6	291	1.1	23	2.7	55	2.5	4		25	1.0	115	2.6
Precipitate labor (< 3 hours)	2,773	2.0	2,273	2.1	413	1.5	21	2.5	57	2.6	1	-	31	1.2	88	2.0
At least one complication	35,583	25.8	28,345	26.5	6,090	22.4	234	27.8	644	29.2	30	34.5	530	20.5	1,162	26.2
Total Live Births	137,844	100.0	106,828	100.0	27,129	100.0	841	100.0	2,209	100.0	87	100.0	2,582	100.0	4,435	100.0

¹ Live births with race unknown are in the "Total" column only.

Behavioral Risk Factors Mothers who smoked while pregnant accounted for 18.5 percent (25,468) of the live births in 1994 (Table 1.13). These data are consistent with statewide sample survey data. The reported percentage of live births to mothers who smoked while pregnant was highest for American Indian mothers (35.9 percent), was lower and relatively similar for white and black mothers (19.2 and 16.7 percent, respectively). Fewer mothers of Hispanic ancestry reported smoking during pregnancy than white or black mothers (10.7 percent). Asian and Pacific Islander mothers and mothers of Arab ancestry had the lowest percentages of reported smoking during their pregnancy.

Only 2,391 (1.7 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 under report the frequency of this risk factor.

A weight gain during pregnancy of less than sixteen pounds was reported for mothers of 9.5 percent (13,144) 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, 1994

Maternal							Race ¹							Ance	stry	
Risk Factors	Total		Whit	e	Black		Amer. I	ndian	Asian &	P.I.	Othe	r	Arab		Hispan	nic
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Mother smoked while pregnant	25,468	18.5	20,493	19.2	4,527	16.7	302	35.9	63	2.9	5	•	141	5.5	473	10.7
Weight gain less than 16 pounds while pregnant	13,144	9.5	8,901	8.3	3,927	14.5	85	10.1	168	7.6	8	9.2	184	7.1	492	11.1
Mother drank alcohol while pregnant	2,391	1.7	1,595	1.5	750	2.8	21	2.5	8	0.4	2	•	3	•	62	1.4
Total Live Births	137,844	100.0	106,828	100.0	27,129	100.0	841	100.0	2,209	100.0	87	100.0	2,582	100.0	4,435	100.0

¹ Live births with race unknown are in the "Total" column only.

Medical Risk Factors For 18.3 percent (25,230) of the 137,844 resident live births occurring in 1994, 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 3.6 percent (4,990) of the live births. The next most common maternal medical risk factors were diabetes and anemia which occurred in mothers of 2.7 percent (3,721) and 2.1 percent (2,931) of the live births. Drug use was reported on 1.0 percent of all live birth records.

The most common maternal medical risk factors varied among race and ancestry groups. Pregnancy-related hypertension and diabetes were the most common risk factors for white, American Indian and Hispanic mothers; drug use, anemia and pregnancy-related hypertension were the most common for black mothers; and diabetes was most common for Asian and Pacific Islander mothers and mothers of Arab ancestry.

Table 1.14

Numbers and Percents of Live Births by Medical Risk Factors, Race and Ancestry of Mother

Michigan Residents, 1994

						Rac	:e¹					- 8		Ance	stry	
Risk Factors	Total		White	•	Black		Amer. In	dian	Asian &	P.I.	Other		Arab		Hispa	nic
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Hypertension, pregnancy-associated	4,990	3.6	4,159	3.9	730	2.7	29	3.4	44	2.0	5	•	42	1.6	139	3.
Diabetes	3,721	2.7	3,074	2.9	498	1.8	31	3.7	83	3.8	4	•	62	2.4	130	2.
Anemia (Hct. 30/Hgb. 10)	2,931	2.1	2,010	1.9	821	3.0	18	2.1	49	2.2	5		54	2.1	92	2.
Rh sensitive	1,784	1.3	1,640	1.5	119	0.4	10	1.2	3	•	5		48	1.9	26	0
Previous infant 4000+ grams	1,729	1.3	1,635	1.5	65	0.2	14	1.7	4	•	4	•	19	0.7	50	1.
Previous preterm or small-for-gestational age infant	1,606	1.2	1,332	1.2	234	0.9	13	1.5	20	0.9	-	-	26	1.0	53	1
Drug use	1,318	1.0	466	0.4	834	3.1	10	1.2	6	0.3	-	-	2	•	28	0
At least one medical risk ²	25,230	18.3	19,715	18.5	4,891	18.0	168	20.0	297	13.4	26	29.9	343	13.3	730	16
Total Live Births	137,844	100.0	106,828	100.0	27,129	100.0	841	100.0	2,209	100.0	87	100.0	2,582	100.0	4,435	100

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.

Method of Delivery Vaginal delivery was the most common method of delivery in 1994, accounting for 81.5 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 1994 about 25.5 percent of the mothers with a previous C-section had a vaginal delivery.

Primary C-sections were performed in 12.8 percent of the live births and repeat C-sections were performed in 7.7 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 and American Indian 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 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, 1994

Procedures During						Ra	ice ¹							And	estry	
and Method of	Total		Whit	e	Blac	k	Amer. Ir	ndian	Asian 8	P.I.	Othe	er .	Aral	,	Hispa	nic
Delivery	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Procedures																
Vacuum	4,976	3.6	4,294	4.0	515	1.9	31	3.7	106	4.8	3	•	79	3.1	157	3.5
Forceps	3,635	2.6	2,871	2.7	657	2.4	10	1.2	60	2.7	6	6.9	83	3.2	88	2.0
Method									***************************************							
Vaginal	108,653	78.8	83,632	78.3	21,931	80.8	666	79.2	1,781	80.6	66	75.9	2,178	84.4	3,577	80.7
Primary C-section	17,686	12.8	13,731	12.9	3,431	12.6	99	11.8	306	13.9	12	13.8	254	9.8	503	11.3
Repeat C-section	10,619	7.7	8,688	8.1	1,699	6.3	70	8.3	111	5.0	5	•	122	4.7	326	7.4
Vaginal birth after previous C-section	3,629	2.6	2,985	2.8	561	2.1	18	2.1	54	2.4	1	•	58	2.2	133	3.0
Unknown	886	0.6	777	0.7	68	0.3	6	0.7	11	0.5	4	*	28	1.1	29	0.7
Total Live Births	137,844	100.0	106,828	100.0	27,129	100.0	841	100.0	2,209	100.0	87	100.0	2,582	100.0	4,435	100.0

¹ Live births with race unknown are in the "Total" column only.

Abnormal Conditions at Birth In 1994, 14,365 babies were born with at least one recorded abnormal condition at birth (Table 1.16). The highest percentage for a specified abnormal condition was associated with live born infants who received assisted ventilation for less than 30 minutes (2.3 percent). The next two most frequent abnormal conditions were a five minute Apgar under 7 and hyaline membrane dis-

ease/RDS (Respiratory Distress Syndrome), respectively.

For infants born to black women, assisted ventilation <30 minutes (2.6 percent) and a low Apgar score at five minutes (2.3 percent) were reported most frequently.

Table 1.16

Numbers and Percents of Live Births with Abnormal Conditions by Race and Ancestry of Mother

Michigan Residents, 1994

						R	ace1							And	estry	
Abnormal Conditions	Tota	i	Wh	ite	Blac	k	Amer. I	ndian	Asian 8	P.I.	Ott	er	Aral	Ь	Hispa	anic
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Assisted ventilation < 30 minutes	3,104	2.3	2,335	2.2	715	2.6	14	1.7	36	1.6	2	•	57	2.2	74	1.7
5 minute Apgar < 7	1,897	1.4	1,229	1.2	620	2.3	9	1.1	21	1.0	3	•	18	0.7	57	1.3
Hyaline membrane disease/ RDS	1,484	1.1	1,121	1.0	335	1.2	9	1.1	13	0.6	1	•	29	1.1	52	1.2
Assisted ventilation > 30 minutes	1,187	0.9	880	0.8	277	1.0	13	1.5	11	0.5	2	•	25	1.0	28	0.6
Meconium aspiration	566	0.4	316	0.3	227	0.8	4	٠	16	0.7	1	•	21	8.0	19	0.4
At least one condition	14,365	10.4	10,992	10.3	3,068	11.3	65	7.7	173	7.8	17	19.5	216	8.4	428	9.7
Total Live Births	137,	844	106,8	328	27,	129	1	341	2,3	209		87	2,	582	4,	435

¹ Live births with race unknown are in the "Total" column only.

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 1994 1,586 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 comprise 89.8 percent of all resident live births that occurred out of state. Live births to Michigan residents occurred in 38 of the 50 states and in Canada in 1994.

Non-resident Births The number of nonresident live births that occurred in Michigan in 1994 was 437. 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 77.1 percent of these events, as shown in Table 1.17. There were live births in Michigan to residents of 32 states, Puerto Rico and at least 6 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, 1994

Geographic Area	Live Births to Re Occurring Outside		Live Births to Non- Occurring in Mic	
	Number	Percent	Number	Percent
Total	1,586	100.0	437	100.0
Ohio	795	50.1	53	12.1
Indiana	377	23.8	71	16.2
Wisconsin	224	14.1	174	39.8
Illinois	28	1.8	17	3.9
Georgia	18	1.1	5	*
Minnesota	. 12	0.8	1	*
California	10	0.6	3	*
Florida	9	0.6	13	3.0
Tennessee	9	0.6	2	*
Virginia	8	0.5	7	1.6
Pennsylvania	7	0.4	2	*
Texas	7	0.4	15	3.4
Louisiana	5	*	1	*
Missouri	5	*	2	*
Arkansas	4	*	1	*
New York	4	*	10	2.3
Kentucky	2	*	3	*
New Jersey	2	*	1	*
Other States	54	3.4	25	5.7
Other Countries	5	*	29	6.6
Unknown	1	*	2	*

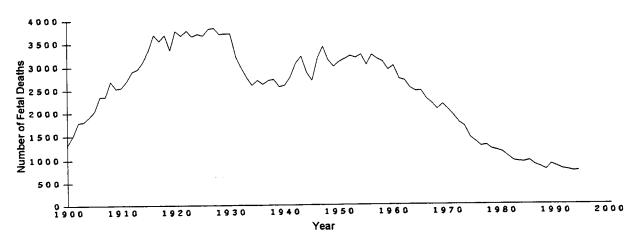
FETAL DEATHS

There were 1,325 fetal deaths reported in Michigan 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).

In 1994 the number of resident fetal deaths was 731.

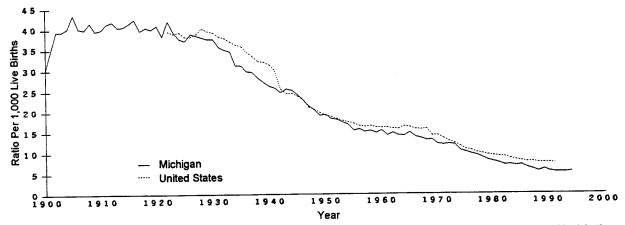
The fetal death ratio for Michigan has declined through most of the twentieth century (Figure 1.12 and Table 4.2). The ratio rose from 30.3 in 1900 to its peak of 43.5 fetal deaths per 1,000 live births in 1905. In 1922, Michigan's fetal death ratio was 42.0, marking a turning point, as fetal death ratios have generally declined since that year. The ratios in 1991 The fetal death ratio through 1993 were 5.2. increased slightly in 1994 to 5.3.

Figure 1.11 **Fetal Deaths** Michigan Residents, 1900-1994



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

Figure 1.12 **Fetal Death Ratios** Michigan Residents, 1900-1994 and United States¹ Residents, 1922-1991



United States ratios prior to 1933 are for registration areas only. United States ratios are based on three different definitions of fetal death: Prior to 1942 - all reported fetal deaths regardless of period of gestation 1942 to 1968 - fetal deaths with gestation age 20 weeks or more or not stated 1969 to current - fetal deaths of stated or presumed period of gestation of 20 or more weeks

Table 1.18

Fetal Deaths and Fetal Death Ratios
Michigan and United States Residents
Selected Years, 1900-1994

United S	States		Michi	gan
Fetal Deaths	Fetal Death Ratios	Year	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
30,160	7.3	1991	775	5.2
N.A.	N.A.	1992	755	5.2
N.A.	N.A.	1993	726	5.2
N.A.	N.A.	1994	731	5.3

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

Michigan's fetal death ratios have been below the national ratios 61 of the 70 years for which national data are available. The last time the United States ratio was below the Michigan ratio was in 1950. In 1991, the Michigan ratio of 5.2 was 28.8 percent below the national ratio of 7.3. 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 1994, 283 of the total 731 deaths were assigned to the category of "other and ill-defined conditions originating in the perinatal period". Nearly half (44.0 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.

Third in frequency was the category maternal complications of pregnancy (ICD 761), which was listed as the cause of 66 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, 1994

ICD. No.1	Cause of Death	Frequency	Ratio ²
779	Other and ill-defined conditions originating in the perinatal period	283	205.3
762	Fetus or newborn affected by complications of placenta, cord		
	and membranes	197	142.9
761	Fetus or newborn affected by maternal complications of pregnancy	66	47.9
760	Fetus or newborn affected by maternal conditions which may be	i	
	unrelated to present pregnancy	38	27.6
740-759	All congenital anomalies combined	81	58.8
	All other causes	66	47.9
740-779	All Causes	731	530.3

Ninth Revision of the International Classification of Diseases, WHO. Ratios per 100,000 resident live births.

AGE, RACE AND ANCESTRY

The overall fetal death rate per 1,000 total births (live births plus fetal deaths) was 5.3 in 1994. 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 and American Indian 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, 1994

Age and Race of Mother	Fetal Deaths	Total Births	Rate Per 1,000 Total Births
Age <15 Years 15-19 Years 20-24 Years 25-29 Years 30-39 Years 40+	4 99 154 164 253 15 42	401 17,150 34,602 39,953 44,467 1,927	5.8 4.5 4.1 5.7 7.8 560.0
Race White	511 183 11 9 -	107,339 27,312 852 2,218 87 767	4.8 6.7 12.9 4.1 -
Ancestry Arab	6 17	2,588 4,452	2.3 3.8
Total	731	138,575	5.3

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

FETAL WEIGHT

Among live births, the percentage of infants weighing less than 2,500 grams at birth was 7.8 percent. The comparable percent among fetal deaths was 77.6 (Table 1.21). The percentage of live born infants weighing less than 750 grams was 0.5 percent, while 43.9 percent of the fetal deaths weighed less than 750 grams.

Table 1.21

Fetal Deaths by Fetal Weight
Michigan Residents, 1994

Weight in Grams	Fetal Deaths	Cum. Percent
<750	321	43.9
750-1,499 Grams	116	59.8
1,500-2,499 Grams	130	77.6
2,500 +	148	97.8
Unknown	16	100.0
Total	731	100.0

MEDICAL AND OTHER RISK FACTORS FOR FETAL DEATHS

In 1994, 269 fetal deaths, or 36.8 percent of all fetal deaths, occurred to women who were reported to have at least one medical or other birth-related risk factor (Table 1.22). The category "All Other Risk Factors" was reported for 248 fetal deaths. The most frequent specific risk factor mentioned was tobacco use during pregnancy; 159 or 21.8% of all fetal deaths. The next most common risk factor associated

with fetal deaths was hydramnios/oligohydramnios (38 fetal deaths).

The highest fetal death rate associated with risk factors occurred among women giving birth with reported hydramnios or oligohydramnios (20.9). The next highest fetal death rate occurred to women with reported uterine bleeding (19.4).

Table 1.22

Numbers and Percents of Fetal Deaths, and Fetal Death Rates
by Medical and Other Risk Factors

Michigan Residents, 1994

Risk Factors of Mother	Number of Fetal Deaths	Percent of Fetal Deaths	Fetal Death Rate
Tobacco use during pregnancy	159	21.8	6.2
Hydramnios/oligohydramnios	38	5.2	20.9
Uterine bleeding		4.1	19.4
Alcohol use during pregnancy	25	3.4	10.3
Diabetes	26	3.6	6.9
All other risk factors		33.9	10.7
At least one risk factor	269	36.8	10.5

PRENATAL CARE

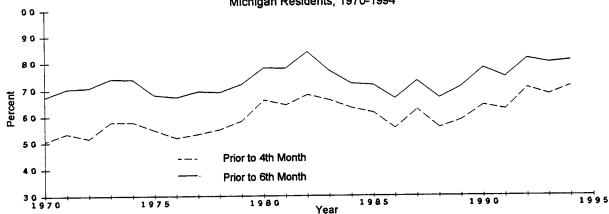
The proportion of all fetal deaths in 1994 that were to women who reported receiving care prior to the fourth month of pregnancy was 71.3 with 80.7 percent receiving care prior to the sixth month (Figure 1.13). The percentage of fetal deaths where the mother received care prior to the fourth and sixth month generally increased until 1982 (Figure 1.13) and declined between 1983 and 1986 to the lowest level in the decade. The percentages have generally increased since 1987.

The relationship between the fetal death rates and the Kessner Index of adequacy of care is displayed in Table 1.23. Since the Kessner Index adjusts for gestational age at birth, a bias towards inadequate care should not result because of the short gestational age for most fetal deaths. The fetal death rate increased as the quality of prenatal care measured by the Kessner Index decreased. The rate was 3.6 per 1,000 total births (fetal deaths and live births) born to women receiving adequate prenatal care. The rate increased to 6.5 and 10.4 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, 1970-1994



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

Table 1.23

Fetal Deaths, Total Births and Fetal Death Rates by Level of Prenatal Care and Race of Mother

Michigan Residents 1994

· · · · · · · · · · · · · · · · · · ·						Race of	f Mother					
Level		All Races			White			Black		All Other		
of Care (Kessner Index ²)	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 Intermediate Inadequate Unknown	369 143 136 83	102,741 22,008 13,063 763	3.6 6.5 10.4 108.8	296 92 77 46	84,593 15,206 7,036 504	3.5 6.1 10.9 91.3	57 43 54 29	15,466 6,173 5,446 227	3.7 7.0 9.9 127.8	11 5 1 3	2,248 562 329 18	4.9
Total	731	138,575	5.3	511	107,339	4.8	183	27,312	6.7	20	3,157	6.3

Race not stated included in total columns only.

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).

MORTALITY SECTION II

MORTALITY

OVERVIEW

In 1994 there were 82,644 deaths recorded for Michigan residents, 358 more than in the previous year. The crude death rate per 1,000 population was 8.8, 1.1 percent higher than the rate of 8.7 observed in 1993 (Table 2.1). The age-adjusted death rate decreased in 1994, being 0.1 percent lower than the age-adjusted rate for 1993. 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 1,184 infant deaths in 1994, 135 fewer than in 1993. This is a 10.2 percent decrease. In the previous year there was a 9.7 percent decrease. The 1994 infant death rate of 8.6 was 9.5 percent lower than the 1993 rate of 9.5, while the neonatal death rate dropped from 6.1 to 5.6 in 1994 (8.2% decrease). The infant mortality rate has decreased more in the four years since 1990 than in the 1950's, 1960's and 1980's. Only the decade between 1970 and 1980 had a larger decrease (36.9 percent) than has been observed during the last four years (19.6 percent).

An Overview, 1994

5 11 15 11	20.044
Resident Deaths	82,644
Crude Death Rate	8.8
Infant Deaths	1,184
Infant Death Rate	8.6
Neonatal Deaths	775
Neonatal Death Rate	5.6
Perinatal Deaths	1,388
Perinatal Death Rate	10.0
Maternal Deaths	8
Maternal Death Rate	5.8
Deaths from Heart Disease per Day	77.2
Deaths from Cancer per Day	53.2
Deaths from Stroke per Day	15.6
Deaths from C.O.P.D. per Day	9.4
Median Age at Death	75
Median Age at Death for Males	72
Median Age at Death for Females	79

TRENDS IN MICHIGAN

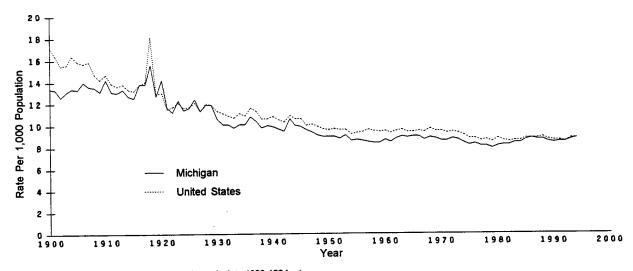
Between 1900 and 1994 the number of deaths occurring to Michigan residents increased from 32,453 to 82,644. The 31,472 deaths recorded in 1902 was the lowest number of resident deaths in this century, while the number of resident deaths recorded in 1994 was the greatest number of resident deaths ever recorded in Michigan (Table 4.1).

Although the total number of deaths increased between 1900 and 1994, the increase is due to an aging and increasing population. The crude death rate decreased from 13.4 (per 1,000 population) in 1900 to 8.8 in 1994. 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 - 1994



 ^{1 1992} estimated population is being used to calculate 1992-1994 rates.
 United States rates for 1971-1979 have been revised using population estimates based on the 1980 Census enumeration. United States rate for 1993 and 1994 are provisional.

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 - 1994 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 increased slightly between 1970 and 1994, while national rates decreased 7.4 percent in the same time period

Table 2.1

Number of Deaths and Crude Death Rates¹

Michigan and United States Residents, 1970 - 1994

iviichigan a	ina United	States	Residents, 197	0 - 1994		
United States			Michigan			
Number	Rate ¹	Year	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	1991	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	8.5		
2,175,613	8.5	1992	78,916	8.5		
2,268,000Pr.	8.8Pr.	1993	82,286	8.7		
2,286,000Pr.	8.8Pr.	1994	82,644	8.8		
	·	·	·			

^{1 1992} estimated population is used to calculate 1993 and 1994 rates.

MORTALITY DIFFERENCES BY SEX AND RACE

Over the period 1970-1994 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 3.2 to 6.6 percent higher than the national rates, while Michigan male rates fluctuated from 1.1 percent lower to 3.4 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.

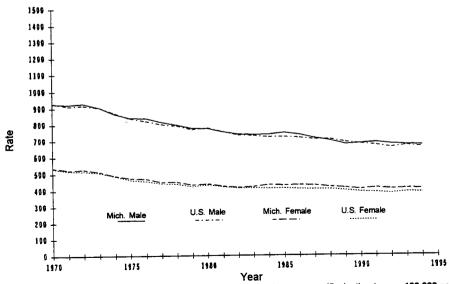
Mortality rate disparities between the black and white population increased during the last twenty-four years. Michigan age-adjusted rates for black males and females were 43.3 and 54.2 percent higher than their white counterparts in 1970. By 1994 black male and female rates were 79.5 and 59.7 percent 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 13.9 and 23.6 percent, respectively. The United States rates for these groups declined by 20.8 and 29.6 percent, respectively, during this period. The Michigan rates for white males and females declined 31.3 and 26.2 percent, while national rates dropped 30.3 and 27.0 percent, respectively.

Figure 2.2

Total Age-Adjusted Death Rates¹ by Sex

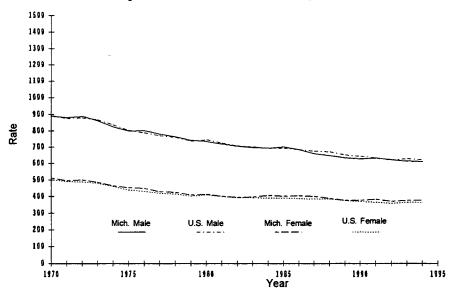
Michigan² and United States³ Residents, 1970 - 1994



¹⁹⁹² estimated population is used to calculate 1993 and 1994 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.

Michigan rates for 1981-1985 have been revised based upon revisions to population estimates; see Technical Notes
 United States data for 1993 and 1994 are provisional.

Figure 2.3 White Age-Adjusted Death Rates1 by Sex Michigan² and United States³ Residents, 1970 - 1994

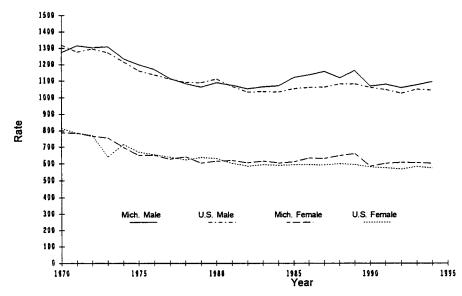


1992 estimated population is used to calculate 1993 and 1994 rates. Based on age-specific death rates per 100,000 population in specified group. Computed by the direct method, using as the standard population the age distribution of the total population of the United States as enumerated in 1940; see Technical Notes.

Michigan rates for 1981-1985 have been revised based upon revisions to population estimates; see Technical Notes. United States data for 1993 and 1994 are provisional.

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

Figure 2.4 Black Age-Adjusted Death Rates¹ by Sex Michigan² and United States³ Residents, 1970 - 1994



1992 estimated population is used to calculate 1993 and 1994 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.

Michigan rates for 1981-1985 have been revised based upon revisions to population estimates; see Technical Notes.

United States data for 1993 and 1994 are provisional.

MORTALITY BY RACE AND ANCESTRY

Table 2.2 presents data on the number of deaths by race for the period 1980-1994 and ancestry since 1989. In 1994 deaths of white persons (69,409) accounted for 84.0 percent of all deaths, while deaths of black persons constituted 15.2 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 0.7 percent and 0.9 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. The increase in Asian and Pacific Islanders between 1988 and 1990 may also be due to the change in the death certificate.

Table 2.2

Number of Deaths by Race¹ and Ancestry

Michigan Residents, Selected Years, 1980 - 1994

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
1990	79,738	67.182	11,980	324	208	2	547	627
1992	78,730	66,377	11.868	389	233	2	508	635
1992	82.286	69.044	12,515	433	240	5	605	694
1993	82,644	69,409	12,572	385	240	6	604	710

¹ Deaths with race unknown are in the "Total" column only.

NUMBER OF DEATHS BY AGE, RACE AND SEX

The numbers of deaths increased with age through age 80-84. Half of all deaths occurred at or below age 75. For males half the deaths occurred at or below 72, while for females, half occurred at or below age 79. Males represented over half the deaths

(50.5 percent) in 1994. Among black persons a higher percentage of deaths (55.3 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, 1994

A in		All Dagge		1		Tesiden	<u> </u>	Dinale			All Other	
Age in		All Races			White	· · · · · · · · · · · · · · · · · · ·		Black	I = .		All Other	· ·
Years	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
< 1	1,184	631	553	670	357	310	495	265	227	19	9	10
1-4	263	147	116	161	91	70	92	51	41	10	5	5
5-9	123	77	46	81	52	29	39	25	14	3	-	3
10-14	191	128	63	140	97	43	47	29	18	4	2	2
15-19	609	449	160	390	273	117	210	171	39	9	5	4
20-24	742	571	171	433	321	112	293	241	52	16	8	7
25-29	740	556	184	464	346	118	266	203	63	10	7	3
30-34	1,085	770	315	697	496	201	372	262	110	16	11	4
35-39	1,479	1,014	465	1,011	720	291	450	286	164	18	7	9
40-44	1,862	1,214	648	1,202	804	398	639	401	238	21	8	12
45-49	2,254	1,404	850	1,555	975	580	663	412	251	36	16	18
50-54	2,863	1,761	1,102	2,141	1,313	828	686	427	259	36	20	15
55-59	3,514	2,110	1,404	2,753	1,654	1,098	711	420	291	50	32	14
60-64	5,152	3,076	2,076	4,199	2,522	1,677	879	507	372	74	46	26
65-69	7,888	4,595	3,293	6,551	3,834	2,717	1,250	713	537	87	45	39
70-74	10,426	5,786	4,640	8,888	4,953	3,935	1,470	797	673	68	35	31
75-79	11,528	5,899	5,629	10,194	5,214	4,980	1,268	650	618	66	33	28
80-84	11,856	5,360	6,496	10,613	4,788	5,825	1,183	537	646	60	34	25
85-89	9,892	3,753	6,139	9,054	3,415	5,639	804	323	481	34	13	15
90+	8,986	2,442	6,544	8,207	2,199	6,008	753	230	523	26	13	12
Not Stated	7	4	3	5	3	2	2	1	1	-		-
All Ages	82,644	41,747	40,897	69,409	34,427	34,978	12,572	6,951	5,618	663	349	282

Deaths with race and/or sex not stated are included only in the total column.

AGE-SPECIFIC MORTALITY BY RACE

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.

Similarly, for both males and females the age-specific mortality rates are generally lowest for the white and Asian and Pacific Islander populations (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 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 and Race

Michigan Residents, 1994

			Race		
Age in Years	Total	White	Black	Amer. Indian	Asian & P.I
Crude Rate	876.1	876.7	940.0	619.3	211.0
<1	858.9	627.2	1,824.6	1,189.1	407.4
1-14	29.4	24.0	54.0	36.5	36.2
15-24	98.3	74.7	210.0	112.3	48.8
25-34	120.3	91.1	302.4	158.2	37.4
35-44	224.9	176.2	541.6	241.7	68.1
45-54	499.3	415.4	1,149.4	701.7	234.3
55-64	1,115.9	1,026.8	1,752.5	1,992.9	868.2
65-74	2.737.1	2,606.2	3,781.0	4,784.2	1,814.7
75-84	6,343.9	6,278.9	6,958.5	8,163.3	4,289.5
85+	16,757.5	16,997.2	14,595.1	15,053.8	10,080.6
Age-Adjusted					
Rate ^{2,3}	525.2	481.3	819.9	757.6	319.3

¹⁹⁹² estimated population is used to calculate 1994 rates. 1994 live births are used to calculate rates for less than one year of age.

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 and Race

Michigan Male Residents, 1994

			Race		
Age in Years	Total	White	Black	Amer. Indian	Asian & P.I.
Crude Rate	910.6	889.0	1,114.3	710.1	227.6
<1	891.5	649.2	1,919.3	*	*
1-14	35.0	29.4	63.1	35.4	26.4
15-24	147.6	106.6	355.2	153.7	34.2
25-34	177.7	132.5	490.7	281.3	27.8
35-44	304.7	242.8	760.6	220.9	57.6
45-54	630.2	520.1	1,572.0	746.0	246.4
55-64	1,396.7	1,276.1	2,320.9	2,684.2	1,317.5
65-74	3,515.9	3,350.2	4,876.9	6,203.2	2,029.5
75-84	8,077.2	7,984.5	8,940.9	11,174.8	5,600.0
85+	19,549.4	20,032.1	15,840.7	18,333.3	13,274.3
Age-Adjusted Rate ^{2,3}	669.8	611.1	1,097.0	971.7	390.1

^{1 1992} estimated population is used to calculate 1994 rates. 1994 live births are used to calculate rates for less than one year of age.

Table 2.6

Death Rates¹ by Age and Race

Michigan Female Residents, 1994

			Race		
Age in Years	Total	White	Black	Amer. Indian	Asian & P.I
Crude Rate	843.3	864.7	787.3	530.8	194.8
<1	815.7	598.1	1,704.3	*	*
1-14	23.8	18.4	44.7	37.6	46.0
15-24	48.4	42.1	73.7	69.9	64.5
25-34	64.7	49.9	148.8	37.0	47.4
35-44	147.6	109.7	363.0	260.7	76.9
45-54	373.5	313.1	796.9	660.5	221.8
55-64	858.3	793.3	1,305.5	1,359.8	494.7
65-74	2,122.0	2,015.1	2,952.9	3,675.9	1,665.6
75-84	5,289.9	5,242.3	5,759.3	6,191.4	3,231.0
85+	15,664.8	15,840.4	13,989.1	13,492.1	7,407.4
Age-Adjusted					
Rate ^{2,3}	407.9	377.0	601.9	586.1	263.8

^{1 1992} estimated population is used to calculate 1994 rates. 1994 live births are used to calculate rates for less than one year of age.

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.

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.

LIFE EXPECTANCY

In 1994 the life expectancy at birth was 72.1 years for males and 78.2 years for females based on 1994 mortality and 1992 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 18.7 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 6.1 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 1993 both males and females in Michigan had lower life expectancy than corresponding sex groups in the nation. By 1993 the life expectancies of males and females in Michigan were 0.1 and 0.7 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 10.0 years greater than black males in 1994 compared to a differential of 5.8 years in 1950. While life expectancy for white males increased slowly after 1980, life expectancy of black males decreased in the mid 1980's. The 1994 black male life expectancy was still slightly lower than it had been in 1984, while life expectancy for white males rose from 71.8 to 73.6 years in 1994.

Table 2.7

Life Expectancy¹ at Birth by Sex

Michigan² and United States Residents

Selected Years, 1901 - 1994

United	States	Year	Michi	gan
Male	Female	real	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	56.0
58.1	61.6	1930	59.8	62.8
60.8	65.2	1940	63.4	64.4
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
		1		
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
72.3	79.0	1992	71.9	78.2
72.1Pr.	78.9Pr.	1993	72.0	78.2
N.A.	N.A.	1994	72.1	78.2
1				

1 1992 estimated population is used to calculate 1993 and 1994 Michigan data.

Michigan data for years 1920, 1930 and 1940 are for white persons only.

persons only.

Source: Office of the State Registrar and Division of Health

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 6.0 years by 1994. Life expectancy generally increased for white females between 1950 and 1994. It rose until 1982 for black females and generally declined through 1989. By 1994 their life expectancy increased to 73.2, slightly higher than the average longevity achieved twelve years before, in 1982.

Table 2.8
Life Expectancy ¹ at Birth by Sex and Race ²
Michigan Residents, Selected Years, 1950 - 1994

Population		Year															
Subgroup	1950	1960	1970	1980	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
White Male Female	66.2 71.9		68.2 75.3	71.0 77.6				ì	71.9 78.2	ı	72.6 78.5		73.1 79.0	73.1 78.8	73.3 79.2	73.4 79.1	73.6 79.2
Black Male Female	60.4 63.4	63.6 67.7	59.9 68.3	63.5 72.2	64.1 72.7	64.2 72.5		62.9 72.5	62.7 72.0	62.4 72.0	63.1 71.8	62.3 71.4	63.8 73.2	63.4 72.8	64.0 72.7	63.8 72.9	63.6 73.2

 ¹⁹⁹² estimated population is used to calculate 1993 and 1994 Michigan data.
 Data for 1950 and 1960 are for persons of white and other than white race.

YEARS OF LIFE REMAINING

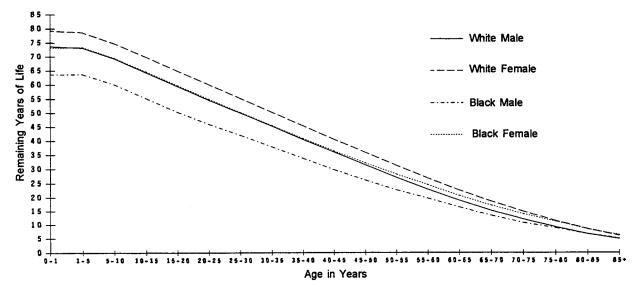
The expected number of years of life remaining are presented graphically by age, race, and sex in Figure 2.5. The number of years of life remaining for females was greater than that for males throughout life. The average number of years remaining for white males and females surpassed or equaled that of their black counterparts for all age groups. H

owever, 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. (See Tables 4.19-4.27 for the values used in Figure 2.5)

Figure 2.5

Remaining Years of Life by Age, Sex and Race

Michigan Residents, 1994



^{1 1992} estimated population is used to calculate 1994 Michigan data.

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 (55.5 percent compared to 25.5 percent). Conversely, women were over three times as likely to be widows at the time of death as men were to be widowers (56.7 percent compared to 18.4 percent).

PLACE OF OCCURRENCE

There were 1,956 Michigan resident deaths in 1994 that occurred outside the state (Table 2.10). This represents 2.4 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 52.7 percent of all resident deaths occurring outside Michigan.

Of the 1,108 non-residents who died in Michigan in 1994, 40.8 percent were from the border areas while 24.8 percent were Floridians.

Table 2.9

Deaths by Sex and Marital Status

Michigan Residents, 1994

	Ma	les	Females			
Marital Status	Number	Percent	Number	Percent		
Total	41,747	100.0	40,890	100.0		
Never Married	6,196	14.8	3,629	8.9		
Divorced ¹	4,542	10.9	3,549	8.7		
Widowed	7,667	18.4	23,183	56.7		
Married	23,167	55.5	10,442	25.5		
Unknown	175	0.4	87	0.2		

Divorced includes legally separated.

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

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, 1994

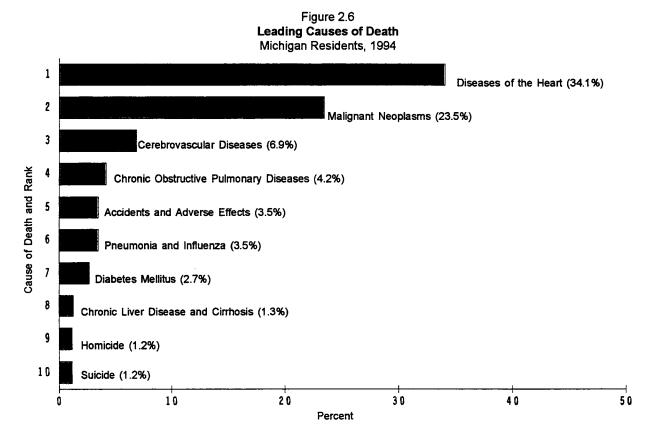
Geographic Area	Resid Occu Outside I	rring	Non-Residents Occurring In Michigan				
	Number	Percent	Number	Percent			
Total	1,956	100.0	1,108	100.0			
Florida Ohio	450 404	23.0 20.7	275 158	24.8 14.3			
Wisconsin	290	14.8	130	11.7			
Indiana	240	12.3	67	6.0			
Arizona	88	4.5	21	1.9			
Illinois	78	4.0	70	6.3			
California	47	2.4	46	4.2			
Texas	44	2.2	20	1.8			
Tennessee	33	1.7	21	1.9			
Kentucky	26	1.3	12	1.1			
Colorado	22	1.1	7	0.6			
Missouri	20	1.0	12	1.1			
Pennsylvania	19	1.0	18	1.6			
Alabama	19	1.0	11	1.0			
Virginia	17	0.9	10	0.9			
All Other States	140	7.2	159	14.4			
Canada	19	1.0	27	2.4			
All Other Areas	_	-	27	2.4			
Unknown	-	-	17	1.5			

LEADING CAUSES OF DEATH

Ten Leading Causes of Death Deaths due to the 10 leading causes accounted for 82.1 percent of all deaths in 1994. Diseases of the heart was the leading cause of death with 34.1 percent of all deaths. Another 23.5 percent of the deaths were due to cancer. Together these two causes of death were responsible for 57.6 percent of all Michigan resident deaths. The third leading cause of death was cerebrovascular disease with 6.9 percent of all deaths. The percentage of total deaths resulting from each of

the 10 leading causes of death in 1994 is illustrated in Figure 2.6.

The numbers of deaths and the death rates for the 10 leading causes in 1994 are shown in Table 2.11. In 1991 accidents dropped from fourth to fifth leading cause of deaths in Michigan for the first time since 1930. Accidents dropped again, to the sixth leading cause of death, in 1993. The ranking changed in 1994 with pneumonia and influenza moving to the sixth from the fifth leading cause of death.



Cause-Specific Crude Death Rates These rates in Michigan were higher in 1994 than in 1993 for five of the ten leading causes: malignant neoplasms, cerebrovascular disease, accidents and adverse effects, diabetes mellitus and chronic liver disease and cirrhosis. The rates were lower for diseases of the heart, pneumonia and influenza, suicide and homicide. The rate for chronic obstructive pulmonary diseases and allied conditions did not change.

The order of the leading causes of death for Michigan and the United States were different somewhat in 1994 (Table 2.11). Human immunode-

ficiency virus infection (AIDS) was the eighth leading cause of death in the United States, but ranked as the thirteenth leading cause of death in Michigan. The overall Michigan death rate was slightly lower than the national rate (0.1 percent). Michigan's mortality rates for heart disease, diabetes mellitus and homicide were 6.2, 11.3 and 18.7 percent higher, respectively, than the comparable national rates. The Michigan death rates for accidents and chronic obstructive pulmonary disease were about 8.6 and 5.9 percent lower, respectively, than the national rates.

Table 2.11

Leading Causes of Death and Cause-Specific Rates¹

Michigan and United States² Residents, 1994

		Number o	of Deaths	Rat	e
Rank	Cause of Death	Michigan	U.S.	Michigan	U.S.
4	Diseases of the Heart	28,195	730,730	298.9	280.3
1		19,410	538,560	205.8	206.6
2	Malignant Neoplasms	5,680	153,940	60.2	59.1
3	Cerebrovascular Disease	3,000	100,040	33.2	
4	Chronic Obstructive Pulmonary	2 447	101,170	36.5	38.8
	Diseases and Allied Conditions	3,447	, ,	7	33.9
5	Accidents and Adverse Effects	2,928	88,370	31.0	
6	Pneumonia and Influenza	2,877	81,820	30.5	31.4
7	Diabetes Mellitus	2,224	55,270	23.6	21.2
8	Chronic Liver Disease and Cirrhosis	1,035	25,660	11.0	9.8
_		1,023	23,680	10.8	9.1
9	Homicide		30,570	10.8	11.7
10	Suicide	1,022	30,370	10.0	
	Sub Total	67,841	1,829,770	719.1	701.9
	All Other Causes	14,803	456,230	156.9	175.0
	Total	82,644	2,286,000	876.1	876.9

 ^{1 1992} estimated population is used to calculate 1994 rates.
 United States data are estimates based on a 10 percent sample of deaths.

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 tenth leading cause of death, was the eighth leading cause for white

males. Accidents, the fifth leading cause of death, was the seventh leading cause for white females. Homicide was the third and eighth 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 1993.

Table 2.12 **Leading Causes of Death by Race and Sex¹**Michigan Residents, 1994

		All Races	3		White			Black			All Other	7
Cause of Death	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Diseases of the Heart	28,195	13,902	14,293	24,237	11,861	12,376	3,785	1,932	1,853	172	109	63
Malignant Neoplasms	19,410	10,194	9,215	16,600	8,629	7,970	2,643	1,476	1,167	165	89	76
Cerebrovascular Disease	5,680	2,176	3,504	4,845	1,819	3,026	792	335	457	43	22	21
Chronic Obstructive Pulmonary Diseases and Allied Conditions	3,447	1,807	1,640	3,126	1,621	1,505	298	174	124	22	12	10
Accidents and Adverse Effects	2,928	1,825	1,103	2,451	1,519	932	412	265	147	65	41	24
Pneumonia and Influenza	2,877	1,384	1,493	2,477	1,166	1,311	385	212	173	14	6	8
Diabetes Mellitus	2,224	961	1,263	1,824	789	1,035	375	162	213	25	10	15
Chronic Liver Disease and Cirrhosis	1,035	675	360	789	528	261	232	142	90	14	5	9
Homicide	1,023	810	213	289	196	93	727	609	118	6	4	2
Suicide	1,022	848	174	901	748	153	111	92	19	10	8	2
All Other Causes	14,803	7,165	7,632	11,870	5,551	6,316	2,812	1,552	1,257	95	43	52
Total	82,644	41,747	40,890	69,409	34,427	34,978	12,572	6,951	5,618	631	349	282

¹ Deaths with race/sex not stated are included only in the "Total" column.

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

Table 2.13

Leading Causes of Death and Crude Death Rates¹ by Race and Sex

Michigan Residents, 1994

		All Races			White		Black		
Cause of Death	Total	Male	Female	Total	Male	Female	Total	Male	Female
Diseases of the Heart	298.9	303.2	294.8	306.1	306.3	306.0	283.1	309.7	259.8
Malignant Neoplasms	205.8	222.4	190.1	209.7	222.8	197.1	197.7	236.6	163.7
Cerebrovascular Disease	60.2	47.5	72.3	61.2	47.0	74.8	59.2	53.7	64.0
Chronic Obstructive Pulmonary Diseases and Allied Conditions	36.5	39.4	33.8	39.5	41.9	37.2	22.3	27.9	17.4
Accidents and Adverse Effects	31.0	39.8	22.7	31.0	39.2	23.0	30.8	42.5	20.6
Pneumonia and Influenza	30.5	30.2	30.8	31.3	30.1	32.4	28.8	34.0	24.2
Diabetes Mellitus	23.6	21.0	26.0	23.0	20.4	25.6	28.0	26.0	29.8
Chronic Liver Disease and Cirrhosis	11.0	14.7	7.4	10.0	13.6	6.5	17.3	22.8	12.6
Homicide	10.8	17.7	4.4	3.7	5.1	2.3	54.4	97.6	16.5
Suicide	10.8	18.5	3.6	11.4	19.3	3.8	8.3	14.7	2.7
All Other Causes	156.9	156.4	157.5	150.2	143.9	156.3	210.3	249.1	176.4
Total	876.1	910.7	843.3	877.0	889.6	865.0	940.3	1,114.6	787.8

^{1 1992} estimated population is used to calculate 1994 rates.

Age-adjusted Rates by Race and Sex These rates are presented for the ten leading causes of death in Table 2.14. These rates adjust for the differences in age distributions among the race/sex groups. When comparing the crude rates of heart disease between white males and females, the rate for males is slightly higher, but when adjusted for age the male rate is nearly double that of females. Crude rates for white females are higher for stroke, pneumonia and influenza and diabetes mellitus, but after age-adjusting, the rates are higher in males.

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. For deaths due to heart disease, the rates for white males, black males and black females were 85.9, 183.4 and 70.9 percent higher, respectively than for white females. For cancer deaths these differentials were 39.8, 112.9 and 23.5 percent. 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 1.9, 2.8 and 7.1 times higher, respectively, than rates for white females.

Rates for black males were lower for suicides than white males and equal for chronic obstructive pulmonary diseases and allied conditions. The rates for black females were lower for both 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 eight leading causes of death. The greatest differentials between black and white male rates occurred for cerebrovascular disease, chronic liver disease and cirrhosis, and homicide where black males rates were 1.9, 2.4 and 20.0 times higher. For the remaining conditions the black male and female rates were 1.1 to 1.8 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, 1994

		All Races	3	White			Black		
Cause of Death	Total	Male	Female	Total	Male	Female	Total	Male	Female
Diseases of the Heart	158.4	210.5	116.4	148.2	199.1	107.1	235.1	303.5	183.0 138.6
Malignant Neoplasms	136.4	165.8	115.4	130.6	156.9	112.2	181.0	238.9 52.2	44.5
Cerebrovascular Disease	29.0	30.8	27.3	26.4	28.1	24.8	48.0	52.2	44.5
Chronic Obstructive Pulmonary Diseases and Allied Conditions	20.5	26.0	17.0	20.6	25.9	17.3	18.8	25.9	14.0
Accidents and Adverse Effects	26.5	36.9	16.7	25.8	36.0	16.0	29.5	42.7	18.6
Pneumonia and Influenza	13.9	18.5	10.8	12.7	17.0	9.8	22.1	30.9	15.8
Diabetes Mellitus	14.1	15.3	13.1	12.7	13.9	11.8	24.1	26.5	21.9
Chronic Liver Disease and Cirrhosis	9.1	13.0	5.5	7.7	11.4	4.4	18.9	26.9	12.5
Homicide	11.5	18.6	4.5	3.6	5.0	2.3	55.5	100.2	16.4
Suicide	10.2	17.6	3.4	10.6	18.1	3.5	8.4	15.1	2.8
All Other Causes	95.6	116.8	77.7	82.4	99.9	67.8	178.6	234.3	133.7
Total	525.2	669.8	407.9	481.3	611.1	377.0	819.9	1,097.0	601.9

 ^{1 1992} estimated population is used to calculate 1994 rates.
 2 Deaths with race/sex not stated are included only in the "Total" column.

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 ages 15 through 34 years, black females ages 15 through 24 years, and the second leading cause of death for black males ages 1 through 14 years. Over half of the homicides among Michigan residents occurred among black males 15 to 49 years of age. Compared to homicide rates in 1993, the rates for black males ages 25-34 increased 1.2 percent, while the rate for black males ages 15-24 decreased 1.4 percent in 1994.

Suicide was the third leading cause of death overall for ages 15-24 and second among white males 15-34. Suicide was the third or fourth leading cause among black males 15-24 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 white and black females ages 35 to 64 years.

Diseases of the heart was the leading cause of death for black and white males ages 35 years or over and black and white females 65 years of age or over.

AIDS Overall, AIDS was the third or fourth leading cause of death for people 25 to 49 years of age. Among white males it was the third leading cause of death for ages 25-34 years of age, fourth leading cause for ages 5-14 years of age and fifth for ages 35-49 years of age. It was the second leading cause for black males ages 25-49 years of age. For black females, AIDS was the fifth leading cause for ages 25-34 and the third for ages 35-49. AIDS was not one of the top five causes of death for any white female age group in 1994. 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, 1994

Age	Rank and Cause of Death	Number ¹	Rate ^{2,3,}
Age	1. Diseases of the Heart	28,195	298.9
	2. Malignant Neoplasms	19,410	205.8
All Ages	3 Cerebrovascular Disease	5,680	60.2
All Ages	Chronic Obstructive Pulmonary Diseases and Allied Conditions	3,447	36.5
	5. Accidents	2,928	31.0 876.1
	All Causes	82,644	6/6.1
	1. Certain Conditions Originating in the Perinatal Period	591 220	426.1 158.6
	2. Congenital Anomalies	167	120.4
Under 1 Year	3. Sudden Infant Death Syndrome	37	26.7
	4. Accidents	17	12.3
	5. Diseases of the Heart	1,184	853.7
	All Causes	110	40.4
	1. Accidents	110 33	19.1 5.7
	2. Congenital Anomalies	20	3.5
1-4 Years	3. Malignant Neoplasms	14	2.4
	Homicide Section 2. Homicide Homicide 3. Diseases of the Heart - Certain Conditions Originating in the Perinatal Period	6	1.0
	All Causes	263	45.7
	1. Accidents	134	9.6
	2. Malignant Neoplasms	43	3.
5-14 Years	3. Homicide	26	1.5
3-14 (eais	4. Suicide	18	1.
	5. Congenital Anomalies	10	0. 22.
	All Causes	314	22.
	1. Accidents	487 355	35. 25.
	2. Homicide	187	13.
15-24 Years	3. Suicide	73	5.
	4. Malignant Neoplasms	37	2.
	5. Diseases of the Heart All Causes	1,351	98.
		352	23.
	1. Accidents	268	17.
05.04\/	2. Homicide 3. AIDS	237	15
25-34 Years	4. Suicide	211	13
	5. Malignant Neoplasms	181	11.
	All Causes	1,825	120
	1. Malignant Neoplasms	1,275	61
	2. Diseases of the Heart	1,169	56
35-49 Years	3. Accidents	504 420	24 20
	4. AIDS	277	13
	5. Chronic Liver Disease and Cirrhosis All Causes	5,595	271
		4,285	348
	1. Malignant Neoplasms	3,560	289
	2. Diseases of the Heart	472	38
50-64 Years	Cerebrovascular Disease Chronic Obstructive Pulmonary Diseases and Allied Conditions	412	33
	5. DiabetesMellitus	359	29
	All Causes	11,529	938
	1. Diseases of the Heart	23,256	2,021
	2. Malignant Neoplasms	13,529	1,175
65 and Over	3 Cerebrovascular Disease	4,946	429
JJ and Over	Chronic Obstructive Pulmonary Diseases and Allied Conditions	2,942	255
	5. Pneumonia and Influenza	2,532 60,576	5,264
	All Causes	0/5,00	3,204

Subtotals by sex and race do not add to the grand total as the race was not stated on records for 20 males and 12 females. In addition, the sex was not stated for 4 white persons and 3 black persons. Age groups do not add to respective totals because records with age not stated are included only in the total.

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 1992 estimated population is used to calculate 1994 rates.

Table 2.16
Leading Causes of Death and Cause-Specific Rates by Age,
Michigan Resident White Males, 1994

Age	Rank and Cause of Death	Number ¹	Rate
	1. Diseases of the Heart	11,861	306
	2. Malignant Neoplasms	8,629	222
All Ages	3. Cerebrovascular Disease	1,819	47
	4. Chronic Obstructive Pulmonary Diseases and Allied Conditions	1,621	41
	5. Accidents	1,519	39
	All Causes	34,427	888
	Certain Conditions Originating in the Perinatal Period	146	271
	2. Congenital Anomalies	84	156
Under 1 Year	3. Sudden Infant Death Syndrome	57	106
	4. Accidents	12	22
	5. Diseases of the Heart	7	1:
	All Causes	357	664
	1. Accidents	41	1
4.434	2. Congenital Anomalies	14	
1-4 Years	3. Malignant Neoplasms	8	:
	4. Homicide	5	
	5. Diseases of the Heart	3	
	All Causes	91	34
	1. Accidents	71	1:
F 4 4 5 4	2. Malignant Neoplasms	24	•
5-14 Years	3. Suicide	11	
	4. AIDS	5	
	5-6. Cerebrovascular Disease - Benign Neoplasms All Causes	4 149	2
	1. Accidents	306	54
	2. Suicide	130	2:
15-24 Years	3. Malignant Neoplasms	36	(
	4. Homicide	34	
	5. Diseases of the Heart	16	
	All Causes	594	10
	1. Accidents	215	3:
	2. Suicide	152	2:
25-34 Years	3. AIDS	109	17
	4. Malignant Neoplasms	70	11
	5. Diseases of the Heart	60	
	All Causes	842	133
	1. Diseases of the Heart	639	7:
	2. Malignant Neoplasms	459	5
35-49 Years	3. Accidents	291	33
	4. Suicide	185	2
	5. AIDS	180	20
	All Causes	2,499	28
	1. Diseases of the Heart	1,945	37
	2. Malignant Neoplasms	1,853	35
50-64 Years	3. Cerebrovascular Disease	192	3(
	4. Chronic Obstructive Pulmonary Diseases and Allied Conditions	189	30
	5. Chronic Liver Diseases and Cirrhosis All Causes	182 5,489	3- 1,05
	I		
	4. Discours of the User	0.400	
	Diseases of the Heart Melignent Neoplesme	9,188	
65 and Over	2. Malignant Neoplasms	6,178	1,48
65 and Over	Malignant Neoplasms Cerebrovascular Disease	6,178 1,547	1,489 373
65 and Over	2. Malignant Neoplasms	6,178	2,209 1,489 372 338 248

Subtotals by sex and race do not add to the grand total as the race was not stated on records for 20 males and 12 females in addition, the sex was not stated for 4 white persons and 3 black persons. Age groups do not add to respective totals because records with age not stated are included only in the total.

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 1992 estimated population is used to calculate 1994 rates.

Table 2.17

Leading Causes of Death and Cause-Specific Rates by Age

Michigan Resident Black Males, 1994

Age	Rank and Cause of Death	Number ¹	Rate ^{2,3}
	1. Diseases of the Heart	1,932	309.8 236.7
	2. Malignant Neoplasms	1,476	97.6
All Ages	3. Homicide	609 335	53.7
	4. Cerebrovascular Disease	329	52.8
	5. AIDS	6,951	1,114.5
	All Causes		<u> </u>
	Certain Conditions Originating in the Perinatal Period	153 47	999.1 307.1
	Sudden Infant Death Syndrome	25	163.
Under 1 Year	3. Congenital Anomalies	8	52.
	4. Accidents	3	
	5. Pneumonia and Influenza All Causes	265	1,731.
		20	39.
	1. Accidents	6	11.
4.43/	Homicide Graphical Anomalies	4	
1-4 Years	4-6. Malignant Neoplasms - Anemia - Pneumonia and Influenza	2	
	All Causes	51	99.
	1. Accidents	17	14.
	2. Homicide	16	13.
5-14 Years	3-4. Suicide - Malignant Neoplasms	4	
0 14 102.0	5. Congenital Anomalies	2	1
	All Causes	54	46.
	1. Homicide	269	232.
	2. Accidents	48	41.
15-24 Years	3. Suicide	28 10	24
15-24 Years	4. Diseases of the Heart	8	6.
	5. Malignant Neoplasms	412	355
	All Causes		
	1. Homicide	169 110	178 116
	2. AIDS	37	39
25-34 Years	3. Accidents	31	32
	4. Diseases of the Heart 5. Malignant Neoplasms	19	20
	All Causes	465	490
	4 Bisson of the Heart	227	187
	Diseases of the Heart AIDS	176	145
	3. Malignant Neoplasms	147	121
35-49 Years	4. Homicide	111	91
	5. Chronic Liver Disease and Cirrhosis	58 1,099	906
	All Causes	1,099	300
	1. Diseases of the Heart	474	759
	2. Malignant Neoplasms	382 69	612
50-64 Years	3. Cerebrovascular Disease	57	91
	4. Chronic Liver Diseases and Cirrhosis	46	73
	5. Diabetes Mellitus All Causes	1,354	2,170
	All Geldes		2.483
	1. Diseases of the Heart	1,185 913	1,913
	2. Malignant Neoplasms	212	444
65 and Over	3. Cerebrovascular Disease	135	282
	Pneumonia and Influenza Chronic Obstructive Pulmonary Diseases and Allied Conditions	130	272
		3,250	6,809
	All Causes		- 1

Subtotals by sex and race do not add to the grand total as the race was not stated on records for 20 males and 12 females. In addition, the sex was not stated for 4 white persons and 3 black persons. Age groups do not add to respective totals because records with age not stated are included only in the total.

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.

¹⁹⁹² estimated population is used to calculate 1994 rates.

Table 2.18

Leading Causes of Death and Cause-Specific Rates by Age
Michigan Resident White Females, 1994

Age	Rank and Cause of Death	Number ¹	Rate ^{2,3}
	1. Diseases of the Heart	12,376	305.9
	2. Malignant Neoplasms	7,970	197.0
All Ages	3. Cerebrovascular Disease	3,026	74.8
	4. Chronic Obstructive Pulmonary Diseases and Allied Conditions	1,505	37.2
	5. Pneumonia and Influenza	1,311	32.4
	All Causes	34,978	864.6
	Certain Conditions Originating in the Perinatal Period	146	283.2
	2. Congenital Anomalies	76	147.4
Under 1 Year	3. Sudden Infant Death Syndrome	31	60.1
	4. Accidents	7	13.6
	5. Homicide All Causes	5 310	601.3
	All Values	310	001.0
	1. Accidents	27	12.0
	2. Malignant Neoplasms	9	4.0
1-4 Years	3. Congenital Anomalies	8	3.6
	4. Homicide	2	•
	5-11. Septicaemia - Cerebrovascular Disease - Pneumonia and Influenza -		
	Chronic Obstructive Pulmonary Diseases and Allied Conditions - Chronic Liver Disease and Cirrhosis - Certain Conditions Originating in the Perinatal Period	1	
	All Causes	70	31.2
	All Veloco		J1.2
	1. Accidents	29	5.3
	2. Malignant Neoplasms	12	2.2
5-14 Years	3. Congenital Anomalies	7	1.3
	4-7. Pneumonia and Influenza - Hernia - Suicide - Homicide All Causes	72	42.
	All Causes	12	13.1
	1. Accidents	103	18.9
	2. Malignant Neoplasms	23	4.2
15-24 Years	3. Homicide	19	3.5
	4. Suicide	18	3.3
	5. Congenital Anomalies All Causes	9 229	1.7 42.1
	711 044000		72.
	1. Accidents	76	11.9
	2. Malignant Neoplasms	71	11.1
25-34 Years	3. Suicide	32	5.0
	4. Diseases of the Heart 5. Homicide	20 18	3.1 2.8
	All Causes	319	49.9
	An Oddoes	313	70
	1. Malignant Neoplasms	520	59.2
	2. Diseases of the Heart	168	19.
35-49 Years	3. Accidents	115	13.
	4. Cerebrovascular Disease	54	6.2
	5. Suicide All Causes	49 1,269	5.0 144.0
			ļ <u> </u>
	1. Malignant Neoplasms	1,675	304.5
	2. Diseases of the Heart	804	146.2
E0 64 V	3. Chronic Obstructive Pulmonary Diseases and Allied Conditions	166 148	30.2 26.9
50-64 Yeas	A Carabrayaccular Dicasca		
50-64 Yeas	4. Cerebrovascular Disease 5. Diabetes Mellitus		22 (
50-64 Yeas	Cerebrovascular Disease DiabetesMellitus All Causes	130 3,603	
50-64 Yeas	5. DiabetesMellitus All Causes	130 3,603	23.0 655.0
50-64 Yeas	5. DiabetesMellitus All Causes 1. Diseases of the Heart	130 3,603 11,375	655.0 1,864.1
	5. DiabetesMellitus All Causes 1. Diseases of the Heart 2. Malignant Neoplasms	130 3,603 11,375 5,658	1,864. 927.
50-64 Yeas 65 and Over	5. DiabetesMellitus All Causes 1. Diseases of the Heart 2. Malignant Neoplasms 3. Cerebrovascular Disease	130 3,603 11,375 5,658 2,812	1,864. 927. 461.
	5. DiabetesMellitus All Causes 1. Diseases of the Heart 2. Malignant Neoplasms	130 3,603 11,375 5,658	655. 1,864.

Subtotals by sex and race do not add to the grand total as the race was not stated on records for 20 males and 12 females. In addition, the sex was not stated for 4 white persons and 3 black persons. Age groups do not add to respective totals because records with age not stated are included only in the total.

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.

Rate per 100,000 population.

⁴ 1992 estimated population is used to calculate 1994 rates.

Table 2.19

Leading Causes of Death and Cause-Specific Rates by Age
Michigan Resident Black Females, 1994

Age	Rank and Cause of Death	Number ¹	Rate ^{2,3}
	1. Diseases of the Heart	1,853	259.7
		1,167	163.6
A !! A	Malignant Neoplasms Cerebrovascular Disease	457	64.1
All Ages	4. Diabetes Mellitus	213	29.9
	5. Pneumonia and Influenza	173	24.2
	All Causes	5,618	787.4
	Certain Conditions Originating in the Perinatal Period	135	911.2 195.7
	2-3. Sudden Infant Death Syndrome - Congenital Anomalies	29	60.7
Under 1 Year	4 Accidents	4	*
	5-6. Pneumonia and Influenza - Diseases of the Heart All Causes	227	1,532.2
		17	33.9
	1. Accidents	5	*
	Congenital Anomalies Certain Conditions Originating in the Perinatal Period - Diseases of the Heart	2	•
1-4 Years	5-9. Malignant Neoplasms - Anemia - Homicide - Bronchitis - AIDS	1	*
	All Causes	41	81.
	1. Accidents	13	11.
	2. Homicide	5	
5-14 Years	2 Malignant Neonlasms	3	
0 14 1 02 .0	4-7. Diseases of the Heart - Pneumonia and Influenza - Hernia - Suicide	32	28.
	All Causes		
	1. Homicide	32 12	25. 9.
	2. Accidents	10	8
15-24 Years	3. Suicide	8	6
	4. Diseases of the Heart	6	4.
	5. Malignant Neoplasms	91	73.
	All Causes	30	24
	1. Diseases of the Heart	28 25	21
	2. Homicide	18	15
	3. Malignant Neoplasms 4. Accidents	15	12
25-34 Years	4. Accidents 5. AIDS	12	10
	All Causes	173	148
	1. Malignant Neoplasms	129	87
	2. Diseases of the Heart	125	85
35-49 Years	3. AIDS	54 49	36
20 40	4. Cerebrovascular Disease	49	27
	5. Homicide All Causes	653	444
		310	393
	1. Malignant Neoplasms	291	369
	2. Diseases of the Heart	58	73
50-64 Years	Cerebrovascular Disease Diabetes Mellitus	36	45
	Diabetes Melitus Chronic Obstructive Pulmonary Diseases and Allied Conditions	24	30
	All Causes	922	1,170
	1. Diseases of the Heart	1,393	
	2. Malignant Neoplasms	700	998
65 and Over	3. Cerebrovascular Disease	340	
55 and 576	4. Diabetes Mellitus	160	
	5. Pneumonia and Influenza	121	
	All Causes	3,478	4,50

Subtotals by sex and race do not add to the grand total as the race was not stated on records for 20 males and 12 females. In addition, the sex was not stated for 4 white persons and 3 black persons. Age groups do not add to respective totals because records with age not stated are included only in the total.

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 1992} estimated population is used to calculate 1994 rates.

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 1994, deaths from all infectious and parasitic diseases numbered 1,733 (Table 2.20). The number of deaths due to septicemia decreased from 743 deaths in 1993 to 634 deaths in 1994.

There were 757 deaths (43.7 percent) attributable to AIDS. This was a 9.6 percent increase in the

number of deaths due to AIDS since 1993 when there were 691 deaths. There were 573 and 465 deaths due to AIDS reported in 1992 and 1991, 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 Paridonte 4004

Michigan Residents, 1994

ICD List¹ Number	Cause of Death	Frequency			
042-044	AIDS	767			
1		757			
038	Septicemia	634			
070	Viral Hepatitis	77			
1	Mycoses	50			
010-018	Tuberculosis	44			
135	Sarcoidosis	19			
052	Chickenpox	10			
046	Slow Virus Infection of Central Nervous System	5			
054	Herpes Simplex	5			
040.0	Gas Gangrene	5			
137	Late Effects of Tuberculosis	5			
136.3	Pneumocystosis	4			
053	Herpes Zoster	4			
036	Meningococcal Infection	3			
Residual	All Other Infectious and				
000-139	Parasitic Diseases	111			
	Total				

Detailed list of the 9th revision of the <u>International</u> <u>Classification of Diseases</u>, WHO.

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. This measure of mortality is designed to emphasize mortality which is prevalent among people under age 65.

Table 2.21 includes the years of potential life lost to the Michigan population in 1994 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 70,986 total years lost, 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 prematurity. For Michigan, prematurity was the seventh leading cause of years of potential life lost and fifth in the United States.

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, 1994

		Years o	of Potential L	ife Lost	U.S. ²
Rank	Cause of Death	Total ¹	Male	Female	Rank
1	Malignant Neoplasms	70,986	36,402	34,579	2
2	Accidents and Adverse Effects	66,948	47,275	19,673	1
3	Homicide/Suicide	59,540	48,673	10,868	3
4	Diseases of the Heart	59,076	42,078	16,998	4
5	Prematurity ³	21,092	11,094	9,804	7
6	AIDS	19,716	17,519	2,197	6
7	Congenital Anomalies	19.627	9,784	9,715	5
8	Sudden Infant Death Syndrome	10,772	6,902	3,870	8
9	Chronic Liver Disease and Cirrhosis	10,256	7,180	3,077	10
10	Cerebrovascular Disease	10,147	5,366	4,782	9
	Diabetes Mellitus	6,595	3,940	2,655	12
11 12	Pneumonia and Influenza	6,508	3,684	2,824	11
13	Chronic Obstructive Pulmonary Diseases and Allied Conditions	5,264	2,698	2,566	13
14	Atherosclerosis	420	210	210	n.a.
	All Other	78,156	44,885	33,207	

Total includes data for individuals with sex unspecified.

U.S. rankings based on a 10 percent sample of provisional data.

Codes 765 and 769, detailed list of the 9th revision of the International Classification of Diseases, WHO.

INFANT DEATHS

Trends Of the 82,644 deaths occurring to Michigan residents in 1994, 1,184 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. During the decade of the 1980's the infant death rate fell 13.3 percent. In the four years since 1990, the infant death rate has fallen 19.6 percent (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 below the national statistic. From 1970 through 1975 the infant mortality rate in Michigan

Table 2.22
Infant Deaths and Infant Death Rates
Michigan and United States Residents
Selected Years. 1950 - 1994

Ociected reals, 1900 - 1994									
United S	States	Year	Michi	gan					
Number	Rate	real	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					
34,628	8.5	1992	1,460	10.2					
33,300Pr.	8.3Pr	1993	1,319	9.5					
31,400Pr.	7.9Pr	1994	1,184	8.6					

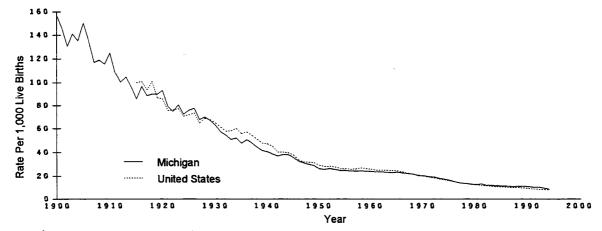
Source: Office of the State Registrar and Division of Health Statistics, MDPH

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 20 percent above the national rate. The provisional rate for the United States in 1994 was 7.9 infant deaths per 1,000 live births. The Michigan rate of 8.6 was 8.9 percent higher than the national provisional rate in 1994 (Table 2.22).

Figure 2.7

Infant Mortality Rates

Michigan Residents, 1900 - 1994 and United States Residents, 1915 - 1994



¹ United States rates for 1993 and 1994 are provisional.

Early Infant Deaths Table 2.23 shows the numbers of infant deaths and infant death rates by age at death for the period 1970-1994. The number of infants who died during the first week of life in 1994 (657) is greater than the number of deaths of infants aged 7-364 days (527). In 1994, 65.5 percent of all infant deaths occurred within the first four

weeks of life and 44.0 percent occurred to infants less than one day old.

A review of Table 2.23 reveals that the 32.8 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 - 1994

	Age at Death											
Year	Total Infan	t Death	<1 D	ay	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		
1993	1,319	9.5	551	3.9	157	1.1	148	1.1	463	3.3		
1994	1,184	8.6	521	3.8	136	1.0	118	0.9	409	3.0		

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 usually 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 39.4 percent between 1980 and 1994, while for black infants the decline was 26.6 percent. The decline in black infant death rates was 17.6 percent from 1992 to 1994. The white infant death rate fell 10.0 percent from 19921.3 to 1994. The rate for black infants of 24.8 in 1980 was 2.4 times higher than that for white infants (10.4). By 1994 the mortality rate for black infants (18.2) was 2.9 times higher than the rate for white infants (6.3) due to the slower decline in the mortality rates experienced by black infants than white infants during the fifteen years.

Infant Death Rates by Race Michigan Residents, 1980 - 1994 50 White 45 Black 40 American Indian 35 Rate Per 1,000 Live Births Asian/Pacific Islander 30 25 20 15 10

Figure 2.8

* Rate does not meet standards of precision or reliability.

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

1983

1982

1989

1981

1984

1985

1986

1987

Year

1988

1989

1990

1991

1992

1993

1994

Infant Death Rates In Table 2.24 infant, hebdomadal, fetal and perinatal deaths are presented by race and ancestry. The infant mortality rates for Asian/Pacific Islander infants and infants of Arab ancestry were 34.9 and 1.6 percent lower than the rate for white infants. Rates for black and American Indian infants were higher than the white rate.

Hebdomadal Death Rates The death rate during the first week of life was 3.2 times higher for black infants than white infants. It was somewhat lower for Asian/Pacific Islander and Arab infants than white infants.

Fetal Death Rates The fetal death rates were higher for births to black and American Indian mothers than white mothers. Fetal death rates were lowest for births to Arab and Hispanic mothers.

Perinatal Death Rates Perinatal deaths are fetal deaths plus hebdomadal deaths. Perinatal death rates were 2.1 times higher for fetuses and infants born to black mothers than white mothers. Perinatal death rates were lowest for fetuses and infants born to Arab mothers. American Indian infants experienced the highest perinatal death rate (20.2).

Table 2.24 Infant, Hebdomadal, Fetal and Perinatal Death Rates by Specified Race and Ancestry Michigan Residents, 1994

	Live ²	Infant De	eaths	Hebdomadal	Deaths ³	Fetal De	eaths	Perinatal	Deaths
Race/Ancestry	Births	Number ⁴	Rate	Number ⁴	Rate	Numbers	Rate	Number®	Rate
All Races	137,844	1,184	8.6	657	4.8	731	5.3	1,388	10.1
White Black	106,828 27,129	670 495	6.3 18.2	357 288	3.3 10.6	511 183	4.8 6.7	868 471	8.1 17.4
American Indian Asian/Pacific Islander	841 2,209	10	11.9 4.1	6 6	7.1 2.7	11 9	13.1 4.1	17 15	20.2 6.8
Other Non-White Unknown	87 750	-	-	-	-	17	22.7	17	22.7
Arab Hispanic	2,582 4,435	16 42	6.2 9.5	8 18	3.1 4.1	6 17	2.3 3.8	14 35	5.4 7.9

Rates calculated using live births by race/ancestry of mother as denominator.

Mother's race/ancestry on birth certificate. Death at age zero to six days. Infants race/ancestry on death certificate.

Mother's race/ancestry on fetal death certificate.

Mother's race/ancestry on fetal death certificate, infant's race/ancestry on death certificate.

Causes of Infant Deaths Michigan resident infant deaths in 1994 are listed by cause of death classification and age at death in Table 2.25. Disorders relating to short gestation and unspecified low birth weight was listed as the cause of 243 deaths and was the specific disease category most frequently reported. Congenital anomalies was the second leading cause of death to infants, accounting for 220 deaths. Sudden infant death syndrome was responsible for 167 infant deaths in 1994, a 20.5 percent decrease from 1993 Over half of all infant deaths were attributed to these three conditions in 1994.

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 birth weight, 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 42.4 percent of the deaths to infants from 1-5 months of age and was also the leading cause from 6-11 months of age.

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 41.6 percent of the black infants but only 27.3 percent of the white infants (Table 2.26). The rate of infant deaths due to congenital anomalies for black infants was 31.3 percent higher than the rate for white infants. While the rate for deaths due to sudden infant death syndrome declined 20.5 percent overall, between 1993 and 1994, the rate for white infants declined 33.3 percent and the rate for black infants increased 0.1 percent.

Causes of Death for Male and Female Infants
The death rate for male infants was 9.3 percent
greater than that for female infants (Table 2.27). The
death rate for males due to sudden infant death
syndrome was 68.9 percent greater than rates for
females. Deaths due to all other tabulated causes,
except congenital anomalies, were higher for male
infants.

Table 2.25
Infant Deaths by Age at Death and Underlying Cause
Michigan Residents, 1994

		Age at Death								
ICD - 9 CODE	Cause of 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	243	225	14	1	1	2			
740-759	Congenital anomalies	220	86	38	35	48	13			
798.0	Sudden infant death syndrome		-	-	14	139	14			
769	Respiratory distress syndrome	83	31	34	14	2	2			
770	Other respiratory conditions of newborn	69	29	12	11	12	5			
E800-949	Accidents and adverse effects	37	2	_	2	26	7			
E960-969	Homicides	12	2	-	-	6	4			
Residual	All other causes		146	38	41	94	34			
	Total	1,184	521	136	118	328	81			

Table 2.26 Infant Deaths and Infant Death Rates¹ by Race^{2,3} and Underlying Cause Michigan Residents, 1994

					Race				
ICD - 9	Cause of Death	Tot	al	Wh	ite	Blac	k	Other	
Code		Number	Rate	Number	Rate	Number	Rate	Number	Rate
765	Disorders relating to short gestation and unspecified low birthweight	243	176.3	96	89.9	144	530.8	3	
740-759	Congenital anomalies	220	159.6	162	151.6	54	199.0	4	"
798.0	Sudden infant death syndrome	167	121.2	88	82.4	76	280.1	3	•
769	Respiratory distress syndrome	83	60.2	46	43.1	36	132.7	1	*
770	Other respiratory conditions of newborn	69	50.1	41	38.4	26	95.8	2	•
E800-949	Accidents and adverse effects	37	26.8	19	17.8	17	62.7	1	
E960-969	Homicides	12	8.7	9	8.4	3	•	-	-
Residual	All other causes	353	256.1	209	195.6	139	512.4	5	•
<u></u>	Total	1,184	858.9	670	627.2	495	1,824.6	19	605.7

Rates per 100,000 live births. Numbers of infant deaths are by race of infant; rates are calculated using live births by race of mother as denominator. Records with race not stated are included only in total columns.

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

Table 2.27 Infant Deaths and Infant Death Rates¹ by Sex² of Infant and Underlying Cause Michigan Residents, 1994

				Sex of	Infant		
ICD - 9	Cause of Death	To	otal	Ma	le	Female	
CODE		Number	Rate	Number	Rate	Number	Rate
765	Disorders relating to short gestation and unspecified low birthweight	243	176.3	124	175.2	116	173.0
740-759	Congenital anomalies	220	159.6	111	156.8	107	159.6
798.0	Sudden infant death syndrome	167	121.2	107	151.2	60	89.5
769	Respiratory distress syndrome	83	60.2	48	67.8	35	52.2
770	Other respiratory conditions of newborn	69	50.1	36	50.9	33	49.2
E800-949		37	26.8	21	29.7	16	23.9
E960-969	Homicides	12	8.7	5	*	7	10.4
Residual	All other causes	353	256.1	179	252.9	173	258.0
	Total	1,184	858.9	631	891.5	547	815.7

Rates per 100,000 live births.
 Records with sex not stated are included only in total columns.

Infant Deaths by Birth Characteristics Infants that died in 1994 were born in 1993 or 1994. These infants can be characterized by the information on their birth certificates. Death rates are calculated using birth characteristics of 1994 live births and 1994 infant deaths.

Infant Deaths by Mother's Age In 1994, the mortality rates were lower for infants born to white

mothers over 19 years of age, than for infants born to white mothers under 20 years of age. mortality rates for infants born to black mothers between 15 and 24 years of age were lower than the rates for infants born to black mothers over 24 years of age. Rates for black infants were significantly above those for the white group in all age groups 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, 1994

Age		All Races	3		White			Black		All (Other Ra	aces
of Mother in Years	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	1,184	137,844	8.6	670	106,828	6.3	495	27,129	18.2	19	3,137	6.1
<15	9	397	22.7	5	123	•	4	269	*	-	4	-
15-19	208	17,051	12.2	99	10,386	9.5	108	6,322	17.1	1	304	*
20-24	319	34,448	9.3	171	24,547	7.0	140	9,104	15.4	8	685	11.7
25-29	281	39.789	7.1	163	32,788	5.0	111	5.774	19.2	7	1,014	6.9
30-39	334	44,214	7.6	213	37,404	5.7	119	5,370	22.2	2	1,073	•
40 +	15	1,912	7.8	9	1,558	5.8	5	280	*	1	57	•
Not Stated	18	33	545.5	10	22	454.5	8	10	800.0	-	-	-

Race not stated included in total columns only.

Numbers of infant deaths are by race of infant; rates are calculated using live births by race of mother as denominator.

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 3.3 times greater for mothers with inadequate care (21.1 deaths per 1,000 live births) than for mothers with adequate care (6.4 deaths per 1,000 live births) in 1994.

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 (13.8) was still 2.7 times greater than for infants born to white mothers (5.1 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, 1994

Level of		Ail Races			White		Black			All Other Races		
Care (Kessner index³)	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	1,184	137,844	8.6	670	106,828	6.3	495	27,129	18.2	19	3,137	6.1
Adequate ntermediate Inadequate Unknown	655 230 273 26	102,372 21,865 12,927 680	6.4 10.5 21.1 38.2	433 122 101 14	84,297 15,114 6,959 458	5.1 8.1 14.5 30.6	212 103 168 12	15,409 6,130 5,392 198	13.8 16.8 31.2 60.6	10 5 4 -	2,237 557 328 15	4.5

Race not stated included in total columns only.

Numbers of infant deaths are by race of infant; rates are calculated using live births by race of mother as denominator.

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). See technical notes.

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 2.9 times that of white infants, the rates for black and white infants born weighing less than 750 grams were the same. (about 7 deaths out of every 10 births). The rates for black infants weighing 750 to 2,499 grams were slightly higher than the rate for their white counterparts. For infants weighing 2,500 grams or more the rate for black infants was 2.3 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 (14.4 percent for infants born to black mothers compared to 6.2 percent for infants born to white mothers).

Neonatal death rates were over three times higher for black infants than white infants. However the neonatal death rates for black infants with a birth weight below 750 grams were slightly higher than the corresponding white infants. These rates for black infants born between 750 to 2,499 grams were lower than the rates for white infants. The neonatal rate was about two times higher for black infants with birth weight of 2,500 grams or greater. After 28 days of life, the postneonatal death rates were consistently higher for black infants than white infants.

The postneonatal death rates are progressively higher as birth weight is lower but are less progressive than the neonatal rates.

Table 2.30
Live Births, Infant Deaths and Infant Death Rates by Birth Weight, Age at Death and Race^{1,2}
Michigan Residents, 1994

D:4L	Dane	Lives			Age at [Death		
Birth Weight	Race	Live Births	Under 1	Year	Under 28	Days	28-364	Days
	Infant		Number	Rate	Number	Rate	Number	Rate
Total	All Races White Black All Other	137,844 106,828 27,129 3,137	1,184 670 495 19	8.6 6.3 18.2 6.1	775 428 334 13	5.6 4.0 12.3 4.1	409 242 161 6	3.0 2.3 5.9 1.9
Less Than 750 Grams	All Races White Black All Other	724 352 350 14	475 230 239 6	656.1 653.4 682.9 428.6	443 216 221 6	611.9 613.6 631.4 428.6	32 14 18	44.2 39.8 51.4
750-1,499 Grams	All Races White Black All Other	1,477 864 593 15	146 85 59 2	98.8 98.4 99.5	111 67 42 2	75.2 77.5 70.8	35 18 17	23.7 20.8 28.7
1,500-2,499 Grams	All Races White Black All Other	8,564 5,364 2,959 193	144 91 53	16.8 17.0 17.9	61 44 17	7.1 8.2 5.7	83 47 36	9.7 8.8 12.2
2,500 Grams Or Greater	All Races White Black All Other	126,789 100,068 23,141 2,910	372 238 124 10	2.9 2.4 5.4 3.4	122 83 34 5	1.0 0.8 1.5	250 155 90 5	2.0 1.5 3.9
Unknown Birthweight	All Races White Black All Other	290 180 86 5	47 26 20 1	162.1 144.4 232.6	38 18 20	131.0 100.0 232.6	9 8 - 1	31.0 44.4

¹ Race not stated included in "All Races" rows only.

Numbers of infant deaths are by race of infant; rates are calculated using live births by race of mother as denominator.

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 90.2 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 67.5 percent higher (Table 2.31).

Death rates were higher for each cause if the mother smoked during her pregnancy. The rate of death due to disorders related to short gestation/low birth weight were 37.5 percent higher for white mothers who smoked and SIDS rates were 2.8 times higher. Infants born to black mothers who smoked had death rates 30.4 percent higher for deaths due to disorders related to short gestation/low birth weight and 2.2 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 Rates by Race of Mother, Smoking Status³ During Pregnancy and Underlying Cause of Death⁴

			All R	aces ⁵			W	ite			Bla	ick	
ICD - 9	Cause of Death	Smol	kers	Non-smokers		Smokers		Non-smokers		Smokers		Non-smo	okers
Code		Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
798.0	Sudden infant death syndrome	60	2.4	106	0.9	35	1.7	52	0.6	23	5.1	i	2.3
740-759	Congenital anomalies	53	2.1	155	1.4	40	2.0	113	1.3	11	2.4	40	1.8
765	Disorders relating to short gestation and unspecified low birthweight	49	1.9	178	1.6	22	1.1	72	0.8	27	6.0		4.6
769	Respiratory distress syndrome	26	1.0	56	0.5	14	0.7	31	0.4	11	2.4	25	1.1
770	Other respiratory condition of newborn	20	0.8	47	0.4	16	0.8	24	0.3	4	•	21	0.9
760-764, 766-768, 771-779	Other Perinatal Conditions	19	0.7	52	0.5	10	0.5	26	0.3	9	2.0	25	1.1
	Accidents and adverse effects	16	0.6	16	0.1	7	0.3	8	0.1	9	2.0	7	0.3
	All other causes	78	3.1	192	1.7	55	2.6	114	1.3	23	5.1	75	3.3
	Total	321	12.6	802	7.1	199	9.7	440	5.1	117	25.8	349	15.4

reates per 1,000 live births.

Numbers of infant deaths are by race of infant; rates are calculated using live births by race of mother as denominator. Records with smoking status not stated are included in non-smoker columns. Records with cause of death pending are included only in the total row. Records with race not stated are included only in total columns.

Perinatal Deaths by Maternal Age and Race Perinatal deaths are fetal deaths plus deaths to individuals less than seven days of age. For total births in 1994, Michigan resident perinatal deaths numbered 1,388 and the perinatal death rate was 10.0 (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 2.1 times the rate for white fetuses and infants.

There was an increased risk of a perinatal death for mothers under 20 years of age and over 29 years.

These rates are lowest for black women ages 20-24 years and for white women ages 25-29 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 3.3 times higher for mothers with inadequate care than for mothers with adequate care (23.4 vs. 7.2 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, 1994

A ===		All Races			White			Black		All Other Infants			
Age of Mother in Years	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	1,388	138,575	10.0	868	107,339	8.1	471	27,312	17.2	32	3,157	10.1	
<15	8	401	20.0	2	123	•	6	273	22.0	-	4	-	
15-19	205	17,150	12.0	96	10,442	9.2	104	6,360	16.4	4	308	•	
20-24	304	34,602	8.8	177	24,648	7.2	116	9,151	12.7	10	690	14.5	
25-29	323	39,953	8.1	205	32,904	6.2	101	5,809	17.4	10	1,020	9.8	
30-39	464	44,467	10.4	337	37,605	9.0	118	5,415	21.8	6	1,077	5.6	
40 +	28	1,927	14.5	22	1,572	14.0	5	281	•	1 1	57	•	
Not Stated	56	75	746.7	29	45	644.4	21	23	913.0	1	1	•	

Race not stated included in total columns only.

Source: Office of the State Registrar and Division of 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, 1994

Level of Care		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	1,388	138,575	10.0	868	107,339	8.1	471	27,312	17.2	32	3,157	10.1	
Adequate Intermediate Inadequate Unknown	i .	102,741 22,008 13,063 763	7.2 11.1 23.4 131.1	529 147 138 54	84,593 15,206 7,036 504	6.3 9.7 19.6 107.1	186 87 160 38	15,466 6,173 5,446 227	12.0 14.1 29.4 167.4	17 8 4 3	2,248 562 329 18	7.6 14.2 *	

Race not stated included in total columns only.

Numbers of infant deaths are by race of infant; rates are calculated using live births by race of mother as denominator.

Numbers of infant deaths are by race of infant; rates are calculated using live births by race of mother as denominator.
 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).

MARRIAGE & DIVORCE SECTION III

MARRIAGE AND DIVORCE

An Overview, 1994

Total Marriages	70,966
Total Divorces and Annulments	39,795
Marriage Rate ¹	15.0
Divorce Rate¹	8.4
Median Age of the Bride	27
Median Age of the Groom	29
Median Age of Wife at Divorce Decree	34
Median Age of Husband at Divorce Decree	37
Median Duration of Marriage at Divorce Decree	7 Years

¹ Number of persons married or divorced per 1,000 population.

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

Table 3.1

Marriages and Marriage Rates¹

Michigan and United States² Occurrences
Selected Years, 1900 - 1994

	Cicotca	- Cui 5, 1	300 - 1334	
United Sta	ites	Voor	Michiga	n
Number	Rate	Year	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	19.6	1988	75,386	16.3
2,404,000	19.4	1989	76,210	16.4
2,448,000	19.6	1990	76,099	16.4
2,371,000Pr	18.8Pr	1991	72,747	15.5
2,362,000Pr	18.6Pr	1992	71,322	15.1
2,334,000Pr	18.0Pr	1993	70,771	15.0
2,362,000Pr	18.2Pr	1994	70,966	15.0

Number of persons married per 1,000 population. 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 of 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 1994 there were 70,966 marriages, a slight increase over 1993. In these two years the marriage rates were 15.0 per 1,000 population, the lowest rates 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 1994 the number of divorces and annulments was 39,795. The divorce rate was 8.4 per 1,000 population, a 13.4 percent decrease since 1980.

MARRIAGES

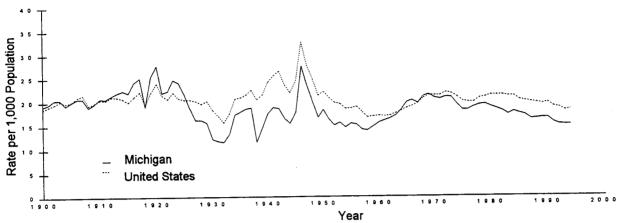
Since 1900 there have been noticeable changes in the marriage rates both nationally and in Michigan (Table 3.1 and Figure 3.1). Both nationally and in Michigan strong historic shifts in rates have been related most notably to the factors of war and the economy. The highest rates observed during this 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

Michigan and United States Occurrences, 1900-1994¹



United States rates for 1991 through 1994 are provisional.

Source: Office of the State Registrar and Division of 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 1994, 95.0 percent of the brides were residents of Michigan, while 93.0 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.

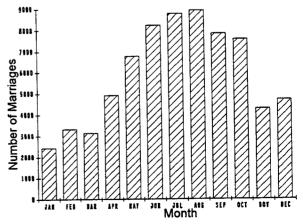
MONTH OF MARRIAGE

The number of marriages occurring in Michigan varies with the seasons (Figure 3.2). The most popular months for marriages in 1994 were August, July and June, with 8,939, 8,788 and 8,233 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 27.3 percent of the number which occurred in August.

Figure 3.2

Marriages by Month

Michigan Occurrences, 1994



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 1994. Between ages 20 and 24, 29.1 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 (27 years) marrying in Michigan was two years lower than the median age for grooms (29 years).

Since 1974, 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 80.1 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 1984 and 1994. The number of first marriages dropped 14.8 percent for women and 12.3 percent for men (Tables 3.3 and 3.4).

Changes in the frequency of first marriages have varied in different age groups. The greatest decline in the number of first marriages occurred in the under 20 age group for both brides and grooms, between 1984 and 1994. 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 1984 and 1994 the percentages of marriages which were first marriages increased for each age group over 20 years of age.

Table 3.2

Number of Marriages and Marriage Rates¹ by Age and Sex

Michigan Occurrences, 1974, 1984 and 1994

			Males				Females		
Age in	1974	1984	1994		1974	1984	1994		
Years	Rate	Rate	Number	Rate	Rate	Rate	Number	Rate	
Under 20 ²	27.2	9.7	1,806	5.4	61.2	26.7	4,779	14.7	
20-24	97.5	55.6	16,759	47.4	81.8	64.6	21,628	60.3	
25-34	39.1	39.7	31,611	42.4	25.1	31.5	27,659	35.9	
35-44	14.3	20.8	12,298	16.8	11.2	15.3	11,038	14.6	
45 or Over	6.6	6.3	8,487	6.3	4.1	3.3	5,854	3.6	
Total	19.7	18.3	70,966	15.5	19.0	17.3	70,966	14.6	
Median Age at Last Birthday			29				27		

Number of persons married per 1,000 population.
 15 - 19 population used to obtain rate.

Table 3.3

Number of Marriages of Brides by Age and Order of Marriage

Michigan Occurrences, 1984 and 1994

			1984			1994						
Age in Years	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	80,810	54,372	67.3	20,609	5,801	70,966	46,351	65.3	18,226	6,367		
Under 20	11,563	11,465	99.2	91	1	4,779	4,741	99.2	38	-		
20-24	30,359	27.945	92.0	2,300	103	21,628	20,417	94.4	1,162	39		
25-29	17,424	11,174	64.1	5,571	677	17,612	13,746	78.0	3,484	375		
30-34	8,784	2,752	31.3	4,810	1,218	10,047	4,771	47.5	4,386	888		
35-39	4,953	651	13.1	3,055	1,246	6,743	1,776	26.3	3,517	1,449		
40-44	2,850	187	6.6	1,739	924	4,295	630	14.7	2,222	1,443		
45 or Over	4.873	196	4.0	3,042	1,632	5,854	265	4.5	3,416	2,172		
Not Stated	4	2	50.0	1	-	6	3	50.0	1	1		
Median Age at Last Birthday	24	22		32	38	27	24		35	38		

Table 3.4

Number of Marriages of Grooms by Age and Order of Marriage

Michigan Occurrences, 1984 and 1994

Age in Years	1984					1994				
	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	78,910	53,293	67.5	21,308	6,191	70,966	46,725	65.8	18,122	6,105
Under 20	4,808	4,330	90.1	6	-	1,806	1,803	99.8	3	-
20-24	26,542	25,374	95.6	923	25	16,759	16,289	97.2	457	8
25-29	20,182	16,455	81.5	4,251	308	19,554	17,030	87.1	2,408	111
30-34	10,167	5,147	50.6	5,137	956	12,057	7,559	62.7	3,971	524
35-39	6,144	1,228	20.0	3,817	1,308	7,389	2,685	36.3	3,696	1,007
40-44	3,635	352	9.7	2,395	1,137	4,909	876	17.8	2,728	1,305
45 or Over	7,421	403	5.4	4,777	2,456	8,487	480	5.7	4,858	3,149
Not Stated	11	4	36.4	2	1	5	3	60.0	1	1
Median Age at Last Birthday	26	24		35	42	29	26		37	45

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 grooms than for brides.

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 grooms and brides. Grooms were 20 months older than brides at the median in 1994.

The median age at first marriage in 1994 was 24 years 7 months for brides and 26 years 3 months for grooms.

REMARRIAGES

The proportion of all marriages which were remarriages is displayed graphically in Figure 3.4 for the period 1960-1994. Between 1960 and 1965, the proportion of remarriages dropped. Since 1965, this proportion has increased.

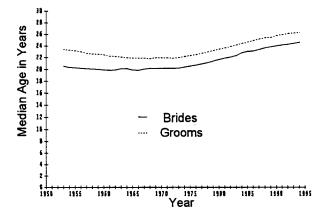
The number of remarriages among brides decreased by 6.9 percent between 1984 and 1994, while the number of brides who had been married at least three times previously increased by 9.8 percent. Total remarriages for grooms decreased by 11.9 percent, while the number of third or higher order marriages decreased (1.4 percent).

The median age at second and later marriages increased between 1984 and 1994 (Tables 3.3 and 3.4).

Figure 3.3

Median Age at First Marriage by Sex

Michigan Occurrences, 1953 -1994



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

Figure 3.4

Percent of All Marriages that are Remarriages

Michigan Occurrences, 1960 -1994



DIVORCES AND ANNULMENTS

The number of reported divorces and annulments reached a record high in 1981 in the nation and in 1980 in Michigan. Between 1980 and 1985, the Michigan frequency declined. The number then increased 40,470 in 1993 and decreased slightly to 39,795 in 1994. The 1994 frequency was 11.7 percent below the 1980 frequency. Nationally, the provisional number of divorces in 1994 was a record high figure of 1,191,000.

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 9.2 in 1994. Michigan's divorce rate was higher than that for the United States each year from 1900 through 1947. In the following 46 years the Michigan divorce rate has been at or below the national rate 39 times, including each of the past 24 years. The lowest national rate was 1.5 in 1900. The highest national divorce rate during this century was recorded in 1981 (10.6).

Table 3.5

Number of Divorces and Annulments
Divorce and Annulment Rates¹

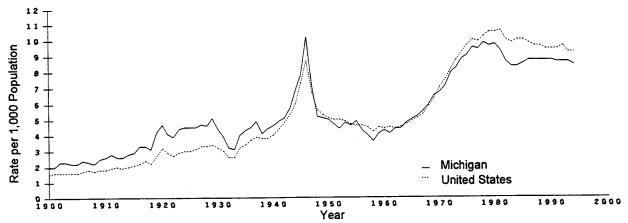
Michigan and United States Occurrences
Selected Years, 1900 - 1994

•	elected 16			
United Sta	ites	Voor	Michig	an
Number	Rate	Year	Number	Rate
56,000	1.5	1900	2,435	2.0
8,300	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
			10.050	4.0
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	9.6	1988	40,103	8.7
1,163,000	9.4	1989	40,276	8.7
1,175,000	9.4	1990	40,568	8.7
1,187,000Pr.	9.4Pr	1991	40,103	8.6
1,215,000Pr.	9.6Pr	1992	40,425	8.6
1,187,000Pr.	9.2Pr	1993	40,470	8.6
1,191,000Pr	9.2Pr	1994	39,795	8.4

Number of persons whose marriages ended in divorce or annulment per 1,000 population.

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

Figure 3.5 **Divorce Rates**Michigan and United States Occurrences, 1900-1994¹



United States rates for 1991 through 1994 are provisional.

The number of children under 18 of couples dissolving marriages in 1994 was at least 38,794 (Table 3.6). This is 21.7 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 17.0 in 1981 (Table 3.6). It has fluctuated between 14.7 and 16.1 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 0.97 in 1994.

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 - 1994

	Michigan				United States	
Estimated Number of Children Involved	Average Number of Children Per Decree	Rate Per 1,000 Under 18 Years of Age	Year	Estimated Number of Children Involved	Average Number of Children Per Decree	Rate Per 1,000 Under 18 Years of Age
19,209 40,596 46,603	1.15 1.36 1.04	6.5 12.5 16.9	1960 1970 1980	463,000 870,000 1,174,000	1.18 1.22 0.98	7.2 12.5 17.3
45,461 41,156 38,712 37,629 38,673 39,378 39,321 39,635 39,897 39,792	1.05 1.04 1.02 1.00 1.00 1.00 0.99 0.99	17.0 15.8 15.3 14.8 15.3 15.7 15.7 15.9 16.1 16.0	1981 1982 1983 1984 1985 1986 1987 1988 1989	1,180,000 1,108,000 1,091,000 1,081,000 1,091,000 1,064,000 1,038,000 1,044,000 1,063,000 1,075,000	0.97 0.94 0.92 0.92 0.90 0.89 0.89 0.91	18.7 17.6 17.4 17.2 17.3 16.8 16.3 16.4 16.8
39,000 39,579 39,372 38,794	0.97 0.98 0.97 0.97	15.6 15.8 15.7 14.7	1991 1992 1993 1994			

REFERENCE APPENDIX SECTION IV

Rate of Natural Increase Michigan

Figure 4.1

Rate of Natural Increase¹

Michigan, 1906 - 1994 and the United States, 1909 - 1994²

Year

Source: Office of the State Registrar and Division of Health Statistics

United States

Excess of live births over deaths per 1,000 population.
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. 1993-1994 United States data is provisional.

Table 4.1

Population, Live Births, Deaths (All Ages, Infant, Neonatal, Postneonatal, Perinatal, Fetal and Maternal),
Marriages and Divorces
Michigan, 1900 - 1994

(Deaths exclusive of fetal deaths. Perinatal deaths include deaths under 1 week and fetal deaths. Divorces include annulments.)

						Deaths_					
ear	Population ¹	Live Births	Ali Ages	<1 Year	<28 Days ²	28-364 Days	Perinatal	Fetal	Maternal	Marriages	Divorces
000	0.400.000	42.600	22.453	6,866				1,325	452	23,295	2,435
900	2,420,982	43,699	32,453				[[1,501	531	24,079	2,448
901	2,459,901	43,221	32,834	6,319			1	1,793	468	25,653	2,828
902	2,498,820	45,546	31,472	5,949					427	26,029	2,945
903	2,537,739	46,020	33,176	6,488				1,814			2,808
904	2,576,658	47,508	34,494	6,419				1,911	436	24,918	
905	2,615,578	46,976	34,679	8,054				2,044	416	26,307	2,825
906	2,654,497	58,599	37,033	7,952				2,358	400	27,519	3,192
907	2,693,416	59,029	36,701	6,906				2,358	391	27,940	3,10
908	2,732,335	64,772	36,761	7,697			Ì	2,694	440	25,765	3,020
909	2,771,254	64,323	36,313	7,443				2,540	405	27,353	3,51
	2,7,1,20	0 1,020						2.550	431	29,039	3,71
910	2,810,173	64,109	39,913	7,998			i	2,559	431	29,039	4,12
911	2,895,997	65,756	38,007	7,131				2,716	451		
12	2,981,821	69,537	38,804	6,985			1	2,906	396	31,694	3,83
913	3,067,645	73,058	40,827	7,659				2,953	528	33,529	3,97
14	3,153,469	76,761	39,906	7,431	1	•		3,113	507	35,316	4,39
915	3,239,293	81,100	40,441	6,943		1		3,357	488	35,527	4,75
916	3,325,116	87,062	46,047	8,415				3,689	503	40,143	5,54
	3,410,940	89,419	47,236	7,916			1	3,550	586	42,791	5,62
917		91,261	54,617	8,197	l			3,686	709	33,260	5,49
918 919	3,496,764 3,582,588	84,062	45,636	7,560				3,361	578	45,579	7,46
919	3,362,300	04,002	40,000	'					705	50.005	0.67
920	3,668,412	92,245	51,982	8,587	İ	ļ	ì	3,770	795	50,805	8,67
921	3,785,799	96,035	44,186	7,584	ł	1		3,669	605	41,508	7,67
922	3,903,186	90,042	43,817	6,730	ļ	ŀ		3,779	551	43,561	7,59
923	4,020,573	92,956	49,333	7,477		ļ		3,657	583	49,569	8,74
923 924	4,137,960	98,187	47,304	7.088	4,119	2,969	6,791	3,703	636	49,788	9,40
		98,983	49,417	7,498	4,022	3,476	6,667	3,670	629	46,276	9,65
925	4,255,347	98,289	54,080	7,620	4,054	3,566	6,773	3,816	631	39,788	9,79
926	4,372,734		50,600	6,766	3,915	2,851	6,794	3,834	667	36,276	10,61
927	4,490,121	99,940			3,739	3,067	6,594	3,701	603	37,300	10,61
928	4,607,508	97,462	54,755	6,806	3,777	2,828	6,613	3,710	617	36,816	12,0
929	4,724,895	98,695	56,117	6,605	3,777	2,020	0,010	3,710	"	00,010	
930	4,842,325	98,882	51,561	6,213	3,624	2,589	6,518	3,714	597	29,482	10,6
931	4,883,703	90,547	49,068	5,187	3,084	2,103	5,643	3,220	539	28,856	9,50
932	4,925,081	85,254	49,569	4,630	2,798	1,832	5,210	2,980	493	28,552	7,8
933	4,966,459	80,482	48,507	4,094	2,591	1,503	4,906	2,776	447	33,132	7,6
		83,944	50,440	4,377	2,717	1,660	4,781	2,607	450	43,241	10,1
934	5,007,837	87,403	51,051	4,170	2,550	1,620	4,832	2,717	438	45,313	10,8
935	5,049,216			4,479	2,647	1,832	4,726	2,625	425	47,023	11,4
936	5,090,594	88,457	54,777		2,700	1,674	4,919	2,707	326	47,954	12,4
937	5,131,972	91,566	53,468	4,374			4,984	2,732	345		10,6
938	5,173,350	96,962	50,678	4,319	2,734	1,585	4,706	2,572	280		I
939	5,214,728	94,432	52,017	3,952	2,594	1,358	4,700	2,572	200	0,,,20	,
940	5,256,106	99,106	52,092			1,393		2,602	292		12,0
941	5,437,546	107,498		4,166	2,687	1,479		2,769	298		13,3
942		124,068				1,515		3,067	260		
		125,441				1,825		3,213	237		
943						1,542		2,874	198	41,678	
1944		113,586		4,008		1,338		2,703	166		21,1
1945		111,557				1,218		3,168	163		
1946		138,572				1,378		3,422	173		
1947							5,968		120		
1948											

¹⁹⁷¹⁻¹⁹⁷⁹ population estimates have been revised by the U.S. Census Bureau. 1992 estimated population is being used to calculate 1993 and 1994 rates.

² For years prior to 1950 deaths under 1 month of age are included in deaths under 28 days.

³ 1974 divorce data is an estimate.

Table 4.1 (continued)
Population, Live Births, Deaths (All Ages, Infant, Neonatal, Postneonatal, Perinatal, Fetal and Maternal),
Marriages and Divorces
Michigan, 1900 - 1994
(Deaths exclusive of fetal deaths. Perinatal deaths include deaths under 1 week and fetal deaths. Divorces include annulments.)

						Deaths					
Year	Population ¹	Live Births	All Ages	<1 Year	<28 Days ²	28-364 Days	Perinatal	Fetal	Maternal	Marriages	Divorces ³
									<u> </u>		
1050	6 271 766	160,055	57,567	4 24 4	2 042	4 4 7 4	E 704	2 005	04	E0 400	45.070
1950	6,371,766	172,451	59,181	4,214 4,505	3,043 3,296	1,171 1,209	5,781	3,095	91	58,180	15,979
1951 1952	6,545,000 6,708,000	172,431	59,181	4,505	3,290	1,209	6,088 6,266	3,158	94	53,411	15,446
1953	6,852,000	182,968	62,087	4,728	3,369	1,273	6,188	3,224 3,180	82 79	50,487 53,308	14,925
1954	7,024,000	192,104	60,706	4,795	3,560	1,235	6,415	3,160	94	51,243	16,537 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
1960	7,823,194	195,056	67,912	4,702	3,580	1,122	6,247	3,008	75	61,090	16,656
1961	7,903,000	192,825	67,375	4,604	3,475	1,129	5,875	2,735	78	63,320	16,219
1962	7,939,000	182,790	70,049	4,367	3,251	1,116	5,669	2,703	56	65,002	17,500
1963	8,030,000	178,871	72,438	4,150	3,109	1,041	5,407	2,540	71	68,160	17,479
1964	8,100,000	175,103	72,129	4,043	3,071	972	5,293	2,466	62	73,911	19,400
1965	8,199,283	166,464	73,665	3,936	2,909	1,027	5,139	2,475	54	81,247	20,305
1966	8,314,070	165,794	74,596	3,751	2,830	921	4,909	2,295	54	83,903	21,727
1967	8,615,000	162,756	75,360	3,595	2,714	881	4,693	2,195	52	84,363	23,620
1968	8,675,000	159,058	76,855	3,438	2,617	821	4,476	2,064	44	90,984	25,400
1969	8,734,000	165,760	76,693	3,356	2,550	806	4,488	2,175	27	93,392	28,347
1970	8,875,083	171,667	76,321	3,492	2,671	821	4,522	2,060	29	91,933	29,934
1971	8,972,000	162,244	77,395	3,157	2,412	745	4,139	1,923	32	92,134	31,790
1972	9,025,000	146,854	79,210	2,801	2,115	686	3,700	1,765	35	94,447	35,505
1973	9,072,000	141,550	78,522	2,561	1,902	659	3,392	1,682	26	94,486	37,128
1974	9,109,000	137,414	76,143	2,387	1,734	653	2,947	1,438	19	88,023	39,940
1975	9,108,000	133,931 131,378	74,522	2,205	1,563	642 554	2,673	1,356	16 14	82,856	40,782
1976 1977	9,117,000	138,416	75,801 74,144	1,978 1,945	1,424 1,367	578	2,495 2,452	1,264 1,284	11	82,753 86,088	43,101 43,036
1978	9,157,000 9,202,000	138,802	74,773	1,931	1,281	650	2,302	1,201	15	88,333	45,030
1979	9,249,000	144,452	73,480	1,921	1,295	626	2,302	1,175	11	89,450	44,242
1		,	,					•			
1980	9,262,078	145,162	74,991 75,818	1,851	1,284 1,281	567 570	2,235	1,135	16	86,898	45,047
1981 1982	9,270,000 9,227,327	140,579 137,950	75,818 75,536	1,851 1,672	1,201	570 470	2,151 1,988	1,040 954	7	85,252 82,633	43,167 39,739
1983		137,930	76,639	1,573	1,067	506	1,843	933	6		37,991
1984	9,155,480 9,057,432	135,782	76,401	1,575	1,100	495	1,884	929	4	78,910 80,810	37,563
1985	9,057,452	138,762	78,635	1,575	1,000	504	1,867	953	9	79,022	38,775
1986	9,144,545	137,626	80,177	1,565	1,079	486	1,782	865	11	77,815	39,553
1987	9,199,871	140,466	79,795	1,538	1,029	509	1,701	824	8	74,418	39,857
1988	9,239,811	139,635	80,075	1,542	1,068	474	1,659	761	11	75,386	40,103
1989	9,273,429	148,164	78,566	1,645	1,070	575	1,792	881	13	76,210	40,276
1990	9,295,297	153,080	78,501	1,638	1,073	565	1,722	830	10	76,099	40,568
1991	9,375,057	149,478	79,738	1,554	1,003	551	1,620	775	16	72,747	40,103
1992	9,433,666	143,827	78,916	1,460	962	498	1,576	755	15	71,322	40,425
1993	9,433,666	139,560	82,286	1,319	856	463	1,434	726	8	70,771	40,470
1994	9,433,666	137,844	82,644	1,184	775	409	1,388	731	8	70,966	39,795

¹⁹⁷¹⁻¹⁹⁷⁹ population estimates have been revised by the U.S. Census Bureau. 1992 estimated population is being used to calculate 1993 and 1994 rates.

For years prior to 1950 deaths under 1 month of age are included in deaths under 28 days.

³ 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 - 1994

(Birth rate, death rate for all ages, rate of percent particular and perinatal and Maternal)

(Birth rate, death rate for all ages, rate of persons married and rate of persons divorced per 1,000 population¹.

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.)

1		al mortality rate per 100,000 live births. Perinatal mortality rate per 1,000 live births Deaths 28-364					,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1		
Year	Live Births	All Ages	<1 Year	<28 Days ²	28-364 Days	Perinatal	Fetal	Maternal	Marriages	Divorces ³
1900 1901 1902 1903 1904 1905 1906 1907 1908 1909	18.1 17.6 18.2 18.1 18.4 18.0 22.1 21.9 23.7 23.2	13.4 13.3 12.6 13.1 13.4 13.3 14.0 13.6 13.5 13.1	157.1 146.2 130.6 141.0 135.1 150.2 135.7 117.0 118.8 115.7				30.3 34.7 39.4 40.2 43.5 40.2 39.9 41.6 39.5	1,034.3 1,228.6 1,027.5 927.9 917.7 885.6 682.6 662.4 679.3 629.6	19.2 19.6 20.5 20.5 19.3 20.1 20.7 20.7 18.9 19.7	2.0 2.3 2.3 2.2 2.4 2.3 2.5
1910 1911 1912 1913 1914 1915 1916 1917 1918 1919	22.8 22.7 23.3 23.8 24.3 25.0 26.2 26.2 26.1 23.5	14.2 13.1 13.0 13.3 12.7 12.5 13.8 13.8 15.6 12.7	124.8 108.4 100.4 104.8 96.8 85.6 96.7 88.5 89.8 89.9				39.9 41.3 41.8 40.4 40.6 41.4 42.4 39.7 40.4 40.0	672.3 685.9 569.5 722.7 660.5 601.7 577.7 655.3 776.9 687.6	20.7 20.6 21.3 21.9 22.4 21.9 24.1 25.1 19.0 25.4	2.6 2.6 2.6 2.8 2.9 3.3 3.1 4.2
1920 1921 1922 1923 1924 1925 1926 1927 1928 1929	25.1 25.4 23.1 23.1 23.7 23.3 22.5 22.3 21.2 20.9	14.2 11.7 11.2 12.3 11.4 11.6 12.4 11.3 11.9	93.1 79.0 74.7 80.4 72.2 75.7 77.5 67.7 69.8 66.9	41.9 40.6 41.2 39.2 38.4 38.3	30.2 35.1 36.3 28.5 31.5 28.7	66.7 64.9 66.3 65.5 65.2 64.6	40.9 38.2 42.0 39.3 37.7 37.1 38.8 38.4 38.0 37.6	861.8 630.0 611.9 627.2 647.7 635.5 642.0 667.4 618.7 625.2	27.7 21.9 22.3 24.7 24.1 21.7 18.7 16.2 16.2	4.7 4.1 3.9 4.4 4.5 4.5 4.5 4.7 4.6 5.1
1930 1931 1932 1933 1934 1935 1936 1937 1938 1939	20.4 18.5 17.3 16.2 16.8 17.3 17.4 17.8 18.7	10.6 10.1 10.1 9.8 10.1 10.1 10.8 10.4 9.8 10.0	62.8 57.3 54.3 50.9 52.1 47.7 50.6 47.8 44.5 41.8	36.6 34.1 32.8 32.2 32.4 29.2 29.9 29.5 28.2 27.5	26.2 23.2 21.5 18.7 19.8 18.5 20.7 18.3 16.3	63.5 60.2 59.0 58.9 55.2 53.6 51.9 52.2 50.0 48.5	37.6 35.6 35.0 34.5 31.1 31.1 29.7 29.6 28.2 27.2	603.7 595.3 578.3 555.4 536.1 501.1 480.5 356.0 355.8 296.5	18.7 11.6	4.4 3.9 3.2 3.1 4.0 4.3 4.5 4.9 4.1
1940 1941 1942 1943 1944 1945 1946 1947 1948	19.8 22.4 23.3 21.1 20.5 24.3 26.4 24.8	9.9 9.7 9.5 10.6 10.0 9.9 9.6 9.4 9.1 9.0	40.6 38.8 37.1 38.3 38.1 35.9 32.8 31.5 30.0 28.9	26.5 25.0 24.9 23.7 24.5 23.9 24.0 22.9 21.8 20.7	14.1 13.8 12.2 14.5 13.6 12.0 8.8 8.6 8.2 8.2	38.0	26.3 25.8 24.7 25.6 25.3 24.2 22.9 21.4 20.4 19.1	294.6 277.2 209.6 188.9 174.3 148.8 117.6 107.9 78.1 67.1	18.8 18.6 16.5 15.5 17.8 27.6 23.5 20.0	4.6 4.9 5.1 5.7 6.8 7.8 10.2 7.1 5.2 5.1

¹⁹⁷¹⁻¹⁹⁷⁹ birth, death, marriage and divorce rates have been recalculated using revised population estimates. 1992 estimated population is used to calculate 1993 and 1994 rates.

² For years prior to 1950 deaths under 1 month of age are included in deaths under 28 days.

^{3 1974} divorce data is an estimate.

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 - 1994

(Birth rate, death rate for all ages, rate of persons married and rate of persons divorced per 1,000 population¹.

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.)

	Livo	Deaths								
Year	Live Births	All Ages	<1 Year	<28 Days ²	28-364 Days	Perinatal	Fetal	Maternal	Marriages	Divorces ³
1950 1951 1952 1953 1954 1955 1956 1957 1958 1959	25.1 26.3 26.5 26.7 27.3 27.1 27.4 26.7 25.8 24.9	9.0 9.8 9.1 8.6 8.7 8.6 8.4 8.4	26.3 26.1 26.4 25.8 25.0 24.8 24.5 24.4 24.6	19.0 19.1 19.2 18.5 18.5 18.9 18.4 18.6 18.7	7.3 7.0 7.2 7.3 6.4 5.9 6.1 5.8 5.9	35.4 34.7 34.6 33.2 32.8 32.0 31.8 31.5 31.7	19.3 18.3 17.4 16.9 15.4 15.7 15.1 15.3	56.9 54.5 46.1 43.2 48.9 31.1 40.8 37.9 34.0 36.3	18.3 15.3 15.6 14.6 15.4 15.2 14.1 14.0 14.8	5.0 4.4 4.8 4.6 4.9 4.3 4.0 3.6 4.1
1960 1961 1962 1963 1964 1965 1966 1967 1968 1969	24.9 24.4 23.0 22.3 21.6 20.3 19.9 18.9 18.3 19.0	8.7 8.5 8.8 9.0 8.9 9.0 8.7 8.9 8.8	24.1 23.9 23.9 23.2 23.1 23.6 23.6 22.1 21.6 20.2	18.4 18.0 17.8 17.4 17.5 17.5 17.1 16.7 16.5	5.89 5.60 5.60 5.60 5.60 5.40 4.9	31.5 30.0 30.6 29.8 29.8 30.4 29.2 28.4 27.8 26.7	15.4 14.2 14.8 14.2 14.1 14.9 13.8 13.5 13.0	38.5 40.5 30.6 49.7 35.4 32.4 32.6 31.9 27.7 16.3	15.6 16.4 17.0 18.2 19.8 20.2 19.6 21.0 21.4	4.3 4.4 4.4 4.8 5.2 5.5 5.5 6.5
1970 1971 1972 1973 1974 1975 1976 1977 1978 1979	19.3 18.1 15.6 15.1 14.7 14.4 15.1 15.1	8.6 8.8 8.7 8.4 8.2 8.3 8.1 7.9	20.3 19.5 19.1 18.1 17.4 16.5 15.1 14.1 13.9	15.6 14.9 14.4 13.4 12.6 11.7 10.8 9.9 9.2 9.0	4.8 4.6 4.7 4.8 4.8 4.2 4.2 4.7	26.0 25.2 24.9 23.7 21.2 19.8 18.8 17.6 16.4 15.7	12.0 11.9 12.0 11.9 10.5 10.1 9.6 9.3 8.7 8.1	16.9 19.7 23.8 18.4 13.8 11.9 10.7 7.9 10.8 7.6	20.7 20.5 20.9 20.8 19.3 18.2 18.2 18.8 19.2 19.3	6.7 7.1 7.9 8.2 8.8 9.0 9.5 9.4 9.8 9.6
1980 1981 1982 1983 1984 1985 1986 1987 1988 1989	15.7 15.2 15.0 14.5 15.0 15.2 15.1 15.3 15.1	8.1 8.2 8.4 8.4 8.7 8.8 8.7 8.5	12.8 13.2 12.1 11.8 11.7 11.4 11.4 10.9 11.0	8.8 9.1 8.7 8.0 8.1 7.8 7.8 7.3 7.6 7.2	3.9 4.1 3.4 3.8 3.6 3.7 3.5 3.6 3.4 3.9	15.3 15.2 14.3 13.8 13.4 12.9 12.0 11.9	7.8 7.4 6.9 7.8 6.9 6.3 5.7 5.4 5.9	11.0 5.0 8.0 4.5 * 6.5 8.0 5.7 7.9 8.8	18.8 18.4 17.9 17.2 17.8 17.4 17.0 16.2 16.3 16.4	9.7 9.3 8.6 8.3 8.5 8.7 8.7 8.7
1990 1991 1992 1993 1994	16.5 15.9 15.2 14.8 14.6	8.4 8.5 8.4 8.7 8.8	10.7 10.4 10.2 9.5 8.6	7.0 6.7 6.7 6.1 5.6	3.7 3.7 3.5 3.3 3.0	11.2 10.8 10.9 10.2 10.0	5.4 5.2 5.2 5.2 5.3	6.5 10.7 10.4 5.7 5.8	16.4 15.5 15.1 15.0 15.0	8.7 8.6 8.6 8.6 8.4

¹⁹⁷¹⁻¹⁹⁷⁹ birth, death, marriage and divorce rates have been recalculated using revised population estimates. 1992 estimated population is used to calculate 1993 and 1994 rates.

² For years prior to 1950 deaths under 1 month of age are included in deaths under 28 days.

³ 1974 divorce data is an estimate.

Table 4.3 Number of Live Births by Age of Mother Michigan Residents, 1920 - 1994

				wiicingairi		ge of Mothe				
Year	All Ages¹	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 +	Not Stated
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	197 197
1937	91,539	54	10,524	30,532	24,366	15,022	7,949	2,653	242	140
1938	96,963	64	11,024	32,581	26,116	15,690	8,397	2,698	253 209	130
1939	94,302	51	10,368	31,036	26,095	15,976	8,021	2,416		
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
1950	160,955	111	16,310	53,442	48,186	27,422	12,392	2,831	169	92
1950	173,506	104	17,974	57,340	52,044	29,674	13,086	3,040	160	84
1952		134	17,206	58,012	54,198	31,756	13,880	3,176	220	52
1953		166	18,510	58,070	54,734	32,948	14,798	3,350	190	44
1954		208	20,522	60,776	55,962	35,152	15,862	3,598	220	32
1955		195	21,417	61,952	56,462	35,968	16,554	3,862	198	15
1956		192	22,808	66,332	58,392	36,870	17,282	4,172	164	14
1957		190	23,798	67,086	58,424	36,980	17,956	4,160	200	14
1958		222	23,034	65,834	55,130	36,278	17,892	4,296	196	18
1959		200	21,922	65,426	53,434	34,934	18,030	4,424	198	8

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, <u>Birth</u>, <u>Stillbirth</u> and <u>Infant Mortality</u> <u>Statistics</u> for <u>Birth</u>, <u>Registration Areas of the United States</u>.
1933-1936: Unpublished tables from the National Center for Health Statistics.
1937-1949: Bureau of the Census publication, <u>Vital Statistics of the United States</u> series.
1950-1959: Department of Health Education and Welfare publication, <u>Vital Statistics</u> of the <u>United States</u> series.

Table 4.3 *(continued)*Number of Live Births by Age of Mother
Michigan Residents, 1920 - 1994

					А	ge of Moth	er			
Year	All Ages ¹	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 +	Not Stated
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
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	16,536	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
1993	139,560	371	17,198	35,732	40,975	31,833	11,682	1,636	71	62
1994	137,844	397	17,051	34,448	39,789	32,148	12,066	1,846	66	33

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, <u>Birth, Stillbirth and Infant Mortality Statistics for Birth, Registration Areas of the United States.</u>

^{1933-1936:} Unpublished tables from the National Center for Health Statistics.

^{1937-1949:} Bureau of the Census publication, <u>Vital Statistics of the United States</u> series.
1950-1959: Department of Health Education and Welfare publication, <u>Vital Statistics of the United States</u> series.

Table 4.4

Live Birth Rates¹ by Age of Mother

Michigan Residents, 1920 - 1994

(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.)

			2330		ge of Mothe				
Year	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45+²	Total Fertility Rate
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	1.17.6	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	135.5	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
1950	0.5		212.0	175.5	106.5	52.3	13.6	0.9	3,179.5
1951	0.4		229.0	192.2	114.4	53.9	14.1	0.8	3,419.5
1952	0.5		233.0	202.5	121.7	56.1	14.4	1.1	3,514.0
1953	0.6		234.5	207.0	125.5	58.7	14.9	0.9	3,594.5
1954	0.7		246.8	214.1	133.1	61.8	15.6	1.1	3,780.0
1955			253.0	218.6	135.4	63.4	16.4	0.9	3,862.0
1956			272.4	228.9	138.0	65.0	17.4	0.8	4,051.5
1957	0.6		277.1	231.8	137.6	66.4	17.0	0.9	4,100.0
1958			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	3,800.0

^{1 1992} estimated population is used to calculate 1993 and 1994 rates.

Source: Population figures used for 1920-1970 rates are from <u>General Population Characteristics</u>, <u>Michigan</u>, USBC, 1971, with arithmetic extrapolation between census years. For 1971-1988 population source, see Technical Notes.

Number of live births to women aged 45 and over per 1,000 women 45-49 years of age.

Table 4.4 (continued)

Live Birth Rates¹ by Age of Mother

Michigan Residents, 1920 - 1994

(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.)

					ge of Moth				
Year	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45+²	Total Fertility Rate
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	2,353.0
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
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	1.2	58.7	109.6	122.7	77.6	27.3	4.1	0.1	2,012.0
1992	1.1	56.4	104.4	119.0	77.2	28.2	4.5	0.2	1,955.0
1993	1.1	52.9	99.6	112.7	78.0	29.4	4.6	0.2	1,892.5
1994	1.2	52.5	96.0	109.4	78.8	30.4	5.2	0.2	1,868.5

^{1 1992} estimated population is used to calculate 1993 and 1994 rates.

Source: Population figures used for 1920-1970 rates are from <u>General Population Characteristics, Michigan, USBC, 1971, with arithmetic extrapolation between census years.</u> For 1971-1988 population source, see Technical Notes.

² Number of live births to women aged 45 and over per 1,000 women 45-49 years of age.

Table 4.5

Reported Cases of Certain Communicable Diseases
Michigan Residents, 1900 - 1994

			•	Mi	chigan Re	esidents, '	1900 - 199	14				
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
1000	2,706	694	5,122	3,375	20,356		2,721	654	1			
1900	2,700	5,088	3,002	2,955	4,629		2,915	506	İ]	
1901	2,993	7,086	2,456	3,534	11,978		2,658	528	l.			
1902		6,341	2,840	4,172	8,941		2,745	525				
1903	3,670		3,028	1,779	10,386		2,928	448				ł
1904	3,510	5,753	2,774	1,196	6,061		2,590	577				İ
1905	2,159	2,985	3,163	1,364	7,403		2,653	533				
1906	3,648	1,240 1,712	1,953	872	12,139		2,699	575				
1907	2,935		2,656	1,248	4,775	!	2,705	487	ļ			1
1908 1909	2,658 3,109	2,306 1,533	2,694	1,054	9,047	1	3,423	457				
			3,361	1,136	13,934		4,415	522	104			
1910	3,433	3,319		1,897	9,639	ļ	5,254	478	68		ļ	
1911	3,762	888	2,660	1,255	2,834		1,958	88	78			
1912	3,294	1,127	2,847	929	9,185		1,920	165	56			
1913	5,505	1,995	2,253	1,822	11,356		2,566	205	49		1	
1914	5,149	1,527	2,167	2,258	4,438		3,648	107	95			
1915	4,386	1,094	1,956		12,143		7,076	163	598			ļ
1916	5,625	1,581	2,513	1,837		ì	4,856	75	91		İ	
1917	8,499	3,674	1,723	3,211	14,472	1	3,655	95	121			
1918	6,128	5,241	1,339	2,563	6,726			75	155	5,077	7,910	
1919	7,896	2,381	1,254	1,829	8,885		4,231					
1920	10,360	4,818	1,421	7,171	22,364		4,994 5,708	203 173	67 483	8,117 7,421	11,463 9,774	
1921	12,075	4,512	1,837	6,696	3,043			159	43	7,900	9,717	[
1922	8,513	1,230	1,108	5,642	12,107		5,573		39	10,480	9,597	1
1923	7,725	2,311	982	7,617	30,041		5,471	186	1	13,000	10,490	1
1924	6,011	4,527	782	4,364	18,290		5,570	157	647	14,668	10,450	1
1925		784	962	7,576	10,332	1	5,785	128	99		10,707	1
1926		549	583	8,776	39,946	i	5,387	96	107	14,872	9,318	
1927		1,467	581	6,818	8,303	1	5,406	138	282	15,713	8,592	
1928		1,335	390	9,700	27,039		5,885	276	77	15,323	9,661	
1929		2,410	310	9,340	18,040		6,248	1,864	180	16,606	9,001	
1930	3,206	2,375	504	7,937	28,129		5,128	901	208	16,538 14,662	8,554 7,843	
1931		915	424	11,448	6,212		6,132	293	1,137	11,969	6,963	
1932		222	513	13,091	42,129		7,103	129	112		6,447	
1933		46	453	11,720	21,654	j	6,624	86	93	7,691 6,483		
1934		49	486	11,255	6,528		5,264	53	230 614	6,416		
1935		16	355	13,427	79,061	1	4,642	113	1		6,460	
1936		32	287	14,287	2,453		5,157	120	152	6,401		
1937			241	11,426	6,154		6,469	87	421	8,708		
1938			285	14,563	79,400		6,335	69	59	14,684		
1939			177	8,997	12,948		6,119	46	904	13,144	6,364	'
1940	264	76	120	11,757			6,063	49	1,228	9,999		_ 1
1941			147	16,512	70,748		5,371	49	270	11,370		
1942			74		8,569		5,720	66	162	12,461		
1943			115	12,091			6,546	757	255	15,933		
1944			78	4,049			6,419	857	884	17,288		
1945			59	5,339		134	5,471	270	215	16,046		
1946			85		42,261		5,548	185	1,091	18,051		
1947			77	10,472	9,574			113	646	15,276	10,989	
1948		ì	1 40			9	6,109		775	12,100		
1949			48	4,157	20,279	28	5,953	120	2,909	8,740	9,42	<u> </u>

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.

Source: Bureau of Infectious Disease Control, Disease Control Division, MDPH

² Meningococcal infections prior to 1952 data were for meningcoccic menigitis.

³ Starting with 1992 data, syphilis counts represent only primary and secondary cases. Prior year counts included early latent cases.

Table 4.5 (continued) Reported Cases of Certain Communicable Diseases Michigan Residents, 1900 - 1994

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
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	- 1	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	
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 5	-	12	1,756 1,410	25,303	3,280	3,474	139	21	4,331	11,654	
1963 1964	1	•	14 13	957	48,752 30,897	2,661 2,472	3,298 3.047	104 80	18 3	5,512 5,220	11,043 12,028	
1965	! !	-	7	612	28,132	2,472	3,047	107	1	5,220	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	2,309 1,915	2.951	76	3	5.581	17,088	
1968	_	_ [1	429	353	2,356	2,531	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	- 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	-	1,185	36,794	
1978 1979	-	-	15 14	47 102	8,006 869	2,174 2,036	1,260 1,052	87 79	1 -	1,133 1,275	36,647 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 1989	-	-	5 6	38 48	54 359	1,202 1,044	526 464	92 70	-	1,105 1,613	37,412 33,627	439 510
1909	-	-				1,044			-	1,013	33,027	
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 8	16	13	1,238	496	87 65	-	1,022	21,470	706
1993 1994	- 1	-		116 96	6 26	1,015 997	463 447	59	-	635 321	17,870 18,100	1,735 1,141

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.

Source: Bureau of Infectious Disease Control, Disease Control Division, MDPH

Meningococcal infections prior to 1952 data were for meningcoccic menigitis.

³ Starting with 1992 data, syphilis counts represent only primary and secondary cases. Prior year counts included early latent cases.

Table 4.6

Case Rates¹ of Certain Reported Communicable Diseases
Michigan Residents, 1900 - 1994

(Rates per 100,000 population)

					(, tales p		population					
Year	Diphtheria	Smallpox	Typhoid Fever	Whooping Cough	Measies	Hepatitis (all types)	TB ² (all forms)	Meningo- coccal Infections ³	Polio	Syphilis ⁴	Gonorrhea	Acquired Immune Deficiency Syndrome
1000	444.0	28.7	211.6	139.4	840.8		112.4	27.0			İ	
1900	111.8				188.2		118.5	20.6			!	
1901	101.5	206.8	122.0	120.1			106.4	21.1				!
1902	119.8	283.6	98.3	141.4	479.3			20.7			1	1
1903	144.6	249.9	111.9	164.4	352.3		108.2					
1904	136.2	223.3	117.5	69.0	403.1		113.6	17.4				ì
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				
	109.0	63.6	72.5	32.4	450.7	Į.	100.2	21.3			1	!!
1907		84.4	97.2	45.7	174.8		99.0	17.8				! 1
1908	97.3			1	326.5	1	123.5	16.5				1 1
1909	112.2	55.3	97.2	38.0	320.5		120.0					
					40= 0		4574	40.6	3.7			i i
1910	122.2	118.1	119.6	40.4	495.8		157.1	18.6				
1911	129.9	31.0	91.8	65.5	332.8	1	181.4	16.5	2.3	ł		
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	1	62.6	5.4	1.8	1		1
	163.3	48.4	68.7	57.8	360.1		81.4	6.5	1.6	1		
1914		33.8	60.4	69.7	137.0		112.6	3.3	2.9			1
1915	135.4			55.2	365.2	İ	212.8	4.9	18.0			
1916	169.2	47.5	75.6			l .	142.4	2.2	2.7			
1917	249.2	107.7	50.5	94.1	424.3					1		i
1918	175.2	149.9	38.3	73.3	192.4		104.5	2.7	3.5	444.7	220.8	
1919	220.4	66.5	35.0	51.1	248.0		118.1	2.1	4.3	141.7	220.8	1
		1		}		1	1		4.0	224.2	242.0	
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	İ	142.8	4.1	1.1	202.4	248.9	i
		57.5	24.4	189.5	747.2		136.1	4.6	1.0	260.7	238.7	1
1923	192.1			105.5	442.0		134.6	3.8	15.6	314.2	253.5	
1924	145.3	109.4	18.9				135.9	3.0	2.3	344.7	250.5	
1925	92.2	18.4	22.6	178.0	242.8	1	123.2	2.2	2.4	340.1	244.9	Ì
1926		12.6	13.3	200.7	913.5		120.4	3.1	6.3	349.9	207.5	
1927	101.9	32.7	12.9	151.8	184.9					332.6	186.5	1
1928	80.8	29.0	8.5	210.5	586.9	1	127.7	6.0	1.7			Ì
1929		51.0	6.6	197.7	381.8		132.2	39.4	3.8	351.4	204.5	
			1			i	1	İ	ļ			
1930	66.2	49.0	10.4	163.9	580.9	ļ	105.9	18.6	4.3	341.5	176.6	
1930		18.7	8.7	234.4	127.2		125.6	6.0	23.3	300.2	160.6	
		4.5	10.4	265.8	855.4	1	144.2	2.6	2.3	243.0	141.4	
1932			9.1	236.0	436.0	Į.	133.4	1.7	1.9	154.9	129.8	1
1933		0.9		224.8	130.4	1	105.1	1.1	4.6	129.5		
1934		1.0	9.7		1,565.8		91.9	2.2	12.2	127.1	126.2	
1935		0.3	7.0	265.9				2.4	3.0	125.7		
1936	13.0	0.6	5.6	280.7	48.2		101.3			169.7		
1937		3.0	4.7	222.6	119.9		126.1	1.7	8.2			
1938			5.5	281.5	1,534.8		122.5	1.3	1.1	283.8		
1939			3.4	172.5	248.3		117.3	0.9	17.3	252.0	122.0	' [
1909	0.7	1	1,	1				1		1	1	. 1
1940	5.0	1.4	2.3	223.7	384.4		115.3	0.9	23.4	190.2		
	1		2.7	303.7			98.8	0.9	5.0	209.1		
1941				209.5	154.7	1	103.3	1.2	2.9	225.0	158.0)
1942			1.3				121.7	14.1	4.7	296.3		
1943			2.1	224.8	962.6				16.4	321.5		
1944	7.8	0.2	1.5	75.3			119.4	15.9				
1945	11.6	0.3	1.1	98.2	116.4	1	100.7	5.0	4.0	295.2		
1946			1.5	142.2	740.3		97.2	3.2	19.1	316.2		
1947			1.3				106.6	1.9	10.6	251.7		
1948			0.8	43.1		0.1	98.6	1.7	12.5	195.3		
1949							93.7	1.9	45.8	137.6	5 148.4	1
1948	1.9		1 0.0	1 00.7								·

^{1 1992} estimated population is used to calculate 1993 and 1994 rates.

Source: Bureau of Infectious Disease Control, Disease Control Division, MDPH.

 ¹⁹⁹² estimated population is used to calculate 1993 and 1994 rates.
 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.
 Meningococcal infections prior to 1952 data were for meningococcic meningitis.
 Starting with 1992 data, syphilis counts represent only primary and secondary cases. Prior year counts included early latent cases.

Table 4.6 (continued) Case Rates¹ of Certain Reported Communicable Diseases Michigan Residents, 1900 - 1994 (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
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	- 1	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	- 1	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	- 1	0.7	25.4	558.4	10.8	73.4	2.4	8.7	63.7	127.7	İ
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	
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 1968		-	0.1	12.3	12.2	22.2	34.2	0.9		64.8	198.4	
1969	-	-	0.1	4.9	4.1 4.6	27.2 38.5	30.2	1.1		61.7	209.3	
1909	-	-	0.1	2.2	4.0	30.5	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	11.9	4.8	0.8	-	37.5	288.2	5.0
1992	-	-	*	0.2	0.2	13.1	5.3	0.9	-	10.8	227.6	7.5
1993	-	-	0.1	1.2	0.1	10.8	4.9	0.7	-	6.7	189.4	18.4
1994	-	-	-	1.0	0.3	10.6	4.7	0.6	-	3.4	191.9	12.1

Source: Bureau of Infectious Disease Control, Disease Control Division, MDPH.

¹⁹⁹² estimated population is used to calculate 1993 and 1994 rates.

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.

Meningococcal infections prior to 1952 data were for meningococcic meningitis.

Starting with 1992 data, syphilis counts represent only primary and secondary cases. Prior year counts included early latent cases.

Table 4.7

Number of Deaths and Death Rates' for Certain Communicable Diseases

Michigan Residents, 1900 - 1994

(Rates per 100,000 population)

				(Rates pe	r 100,000 po	pulation)				
Year	Diphthe	eria	Strep. Sore Includi Scarlet Fo	ng	Typho Feve	oid er	Whoop Coug	ing h	Measi	es
F	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
1900	529	21.9	272	11.2 12.7	869 645	35.9 26.2	208 163	8.6 6.6	342 79	14.1 3.2
1901	502	20.4	312 277	11.1	608	24.3	289	11.6	238	9.5
1902 1903	504 686	20.2 27.0	200	7.9	606	23.9	383	15.1	176	6.9
1904	515	20.0	210	8.1	641	24.9	148	5.7	194	7.5
1905	478	18.3	123	4.7	636	24.3	131	5.0	123	4.7
1906	472	17.8	227	8.6	721	27.2	469	17.7	251 256	9.5 9.5
1907	421	15.6	159	5.9	594 697	22.1 25.1	223 305	8.3 11.2	121	4.4
1908 1909	343 395	12.6 14.3	194 275	7.1 9.9	687 653	23.6	217	7.8	270	9.7
1910	495	17.6	297	10.6	654	23.3	318	11.3	251 200	8.9 6.9
1911	473	16.3	208	7.2	551 534	19.0	254 252	8.8 8.5	118	4.0
1912	465	15.6	186	6.2 9.2	534 538	17.9 17.5	292	9.5	258	8.4
1913	676	22.0 16.1	283 177	5.6	400	12.7	304	9.6	180	5.7
1914 1915	507 354	10.1	107	3.3	353	10.9	236	7.3	101	3.1
1916	507	15.2	177	5.3	424	12.8	228	6.9	363	10.9
1917	851	24.9	340	10.0	386	11.3	360	10.6	259	7.6
1918	686	19.6	181	5.2	337	9.6	496	14.2 4.8	270 183	7.7 5.1
1919	764	21.3	179	5.0	272	7.6	172	13.9	436	11.9
1920	888	24.2	305	8.3 8.8	297 285	8.1 7.5	511 316	8.3	450 58	1.5
1921	954	25.2	334 217	5.6	192	4.9	232	5.9	232	5.9
1922	620 675	15.9 16.8	304	7.6	202	5.0	323	8.0	258	6.4
1923 1924	470	11.4	265	6.4	149	3.6	169	4.1	221	5.3
1925	358	8.4	208	4.9	157	3.7	260	6.1	69 577	1.6 13.2
1926	677	15.5	235	5.4	119	2.7	355 201	8.1 4.5	577 67	1.5
1927	516	11.5	168	3.7	94 83	2.1	219	4.8	303	6.6
1928	384	8.3	178 145	3.9 3.1	81	1.7	255	5.4	146	3.1
1929	498	10.5			87	1.8	176	3.6	231	4.8
1930	299	6.2 3.5	130 122	2.7 2.5	73	1.5	190	3.9	28	0.6
1931 1932	172 106	2.2	112	2.3	56	1.1	199	4.0	183	3.7
1933	112	2.3	157	3.2	50	1.0	153	3.1	111	0.7
1934	38	0.8	171	3.4	65	1.3	141 132	2.8 2.6	36 184	3.6
1935	58	1.1	98	1.9	34 37	0.7	107	2.0	12	0.2
1936	52	1.0	114 148	2.2	29	0.6	132	2.6	11	0.2
1937	72 44	1.4	87	1.7	23	0.4	116	2.2	100	1.9
1939	25	0.5	69	1.3	25	0.5	76	1.5	29	0.6
1940	20	0.4	41	0.8	11	0.2	59 91	1.1	19 65	0.4
1941	18	0.3	32 23	0.6 0.4		*	72	1.3	8	0.1
1942	24 21	0.4	11	0.2		0.2	101	1.9	89	1.7
1943	32	0.6	7	0.1	7	0.1	33	0.6	49	0.9
1945	46	0.8) 9	0.2	3	*	36	0.7	10	0.2
1946	27	0.5	3	•	6	0.1	44 63	0.8	47 5	0.8
1947	23	0.4	6	0.1	5 4		9	0.1	43	0.7
1948		0.1	4		1	· •	22	0.3	33	0.5
1949	11	0.2	"				1			

Source: Bureau of Infectious Disease Control, Disease Control Division, MDPH

¹⁹⁹² estimated population is used to calculate 1993 and 1994 rates.

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.

From 1901 through 1920, syphilis includes all other venereal diseases, beginning with 1968 excludes aortic aneurysms not specified as syphilitic.

Table 4.7 (continued)

Number of Deaths and Death Rates¹ for Certain Communicable Diseases

Michigan Residents, 1900 - 1994

(Rates per 100,000 population)

			,		(Rates per	100,000	populato.,,					
Year	TB of Respira Syste	atory	Tubercu (all for		Poliomy	relitis	Syph	ilis¹	Gonor	hea	AID	3
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
4000										7.00		110.0
1900 1901	2,018 2,152	83.4 87.5	2,500 2,548	103.3 103.6			88	3.6				
1902	2,132	83.6	2,462	98.5			114	4.6				
1903	2,155	84.9	2,562	101.0			130	5.2				
1904	2,306	89.5	2,761	107.2			101	4.0				İ
1905	2,288	87.5	2,732	104.5			89	3.5				
1906	2,303	86.8	2,737	103.1			89	3.4				
1907	2,338	86.8	2,728	101.3			94	3.6				
1908 1909	2,249 2,237	82.3 80.7	2,706 2,629	99.0 94.9			118	4.5 4.8				
1909	2,231	80.7	2,029	94.9			127	4.0				
1910	2,273	80.9	2,756	98.1	52	1.9	65	2.3	-			
1911	2,284	78.9	2,766	95.5	55	1.9	104	3.6	,			
1912	2,289	76.8	2,744	92.0	48	1.7	90	3.1				
1913	2,243	73.1	2,703	88.1	43	1.5	136	4.6				
1914 1915	2,325 2,527	73.7 78.0	2,799 2,986	88.8 92.2	41 36	1.4 1.2	160 163	5.3 5.3				
1916	2,527	77.4	3,070	92.2	141	4.6	163 206	6.7		İ		
1917	2,779	81.5	3,310	97.0	44	1.4	224	7.1				
1918	3,059	87.5	3,612	103.3	58	1.8	290	9.1				
1919	2,620	73.1	3,127	87.3	80	2.2	299	8.2				
1920	2,645	72.1	3,149	85.8	30	0.8	314	8.4				
1921	2,285	60.4	2,736	72.3	100	2.6	226	5.9	14	0.4		
1922	2,232	57.2	2,654	68.0	21	0.5	186	4.7	6	0.2		
1923	2,410	59.9	2,837	70.6	18	0.5	262	6.8	5	•		
1924	2,474	59.8	2,952	71.3	116	3.0	271	7.0	13	0.3		
1925	2,410	56.6	2,830	66.5	31	0.7	282	6.6	27	0.6		
1926 1927	2,601	59.5 56.0	3,041	69.5	34 69	0.8 1.5	327 305	7.5	12	0.3		
1928	2,514 2,647	57.4	2,952 3,108	65.7 67.5	27	0.6	384	6.8 8.4	16 19	0.4 0.4		
1929	2,685	56.8	3,140	66.5	50	1.1	397	8.4	19	0.4		
1930	2,443	50.5	2,912	60.1	39	0.8	395	8.2	12	0.2		İ
1931	2,263	46.3	2,660	54.5	108	2.2	361	7.4	3	+		
1932	2,101	42.7	2,463	50.0	23	0.5	377	7.7	2	•		
1933	1,996	40.2	2,348	47.3	5	*	327	6.6	7	0.1		
1934	1,909	38.1	2,199	43.9	25	0.5	402	8.0	10	0.2		
1935	1,741	34.5	2,044	40.5	32	0.6	393	7.8	3			
1936 1937	1,816 1,860	35.7 36.2	2,100 2,119	41.3 41.3	21 51	0.4 1.0	394 401	7.7 7.8	6 8	0.1 0.2		
1938	1,633	31.6	1,866	36.1	10	0.2	401	7.8	8	0.2		
1939	1,651	31.7	1,881	36.1	40	0.8	389	7.5	4	• •		
1940	1,547	29.4	1,752	33.3	72	1.4	591	11.2	3			
1941	1,532	28.2	1,732	31.7	18	0.3	537	9.9	1			
1942	1,630	29.4	1,827	33.0	10	0.2	559	10.1	7	0.1		
1943	1,588	29.5	1,802	33.5	27	0.5	579	10.8	3	•		
1944	1,544	28.7	1,748	32.5	45	0.8	543	10.1	2 2	•		
1945	1,591	29.3	1,758	32.3	20	0.4	527 547	9.7	2	•		[
1946 1947	1,645 1,483	28.8 24.4	1,843 1,643	32.3 27.1	89 29	1.6 0.5	547 502	9.6 8.3	3			l
1948	1,395	22.5	1,561	25.2	54	0.9	512	8.3	-			
1949	1,254	19.7	1,400	22.0	216	3.4	455	7.2	•	-		
1		1		1 1						ı	1	1

^{1 1992} estimated population is used to calculate 1993 and 1994 rates.

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.
 From 1901 through 1920, syphilis includes all other venereal diseases, beginning with 1968 excludes aortic aneurysms not specified as syphilitic.

Table 4.7 (continued) Number of Deaths and Death Rates¹ for Certain Communicable Diseases Michigan Residents, 1900 - 1994 (Rates per 100,000 population)

				Rates pe	r 100,000 po	Dulauoii)				
Year	Diphthe	eria	Strep. Sore Includi Scarlet F	na	Typho Feve	oid er	Whoop Coug	ing h	Measle	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
1950 1951 1952	2 6 2	0.1	1 -	* - -	5 1 -	*	28 21 8 11	0.4 0.3 0.1 0.2	28 11 17 16	0.4 0.2 0.3 0.2
1953 1954 1955 1956 1957	2 3 1 6	0.1	1 3 1 3	• • •	1 -	•	17 8 6 6	0.2 0.1 0.1 0.1	17 10 26 23	0.2 0.1 0.3 0.3
1958 1959	1	•	2	:	1	•	1 5	•	18 11	0.2 0.1
1960 1961 1962 1963 1964 1965	2 1 2 -	*	1 1 1 -	* * - -	- - - -		1 2 2 - 2 - 2	* * - *	17 13 8 27 11 5	0.2 0.2 0.1 0.3 0.1
1966 1967 1968 1969	1 - -	-	- 1 -	-	- - -	- - -	-	-	7 3 - -	0.1 - -
1970 1971 1972 1973 1974	-	-	2 4 1 - 1		1 -		1 2 1	-	2	- - *
1975 1976 1977 1978 1979	-	-	1 -	-	-	-	1	*	1	-
1980 1981 1982 1983 1984	-		- - 1	- *	1	-	-	-	1 1	•
1985 1986 1987 1988 1989	-	-	- 1	-	-	-	1	-	-	-
1990 1991 1992 1993 1994	-	-	1	-	-	-	- - - -		-	-

¹⁹⁹² estimated population is used to calculate 1993 and 1994 rates.

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.

From 1901 through 1920, syphilis includes all other venereal diseases, beginning with 1968 excludes aortic aneurysms not specified as syphilitic.

Table 4.7 (continued)

Number of Deaths and Death Rates¹ for Certain Communicable Diseases

Michigan Residents, 1900 - 1994

(Rates per 100,000 population)

					(Rates per	,						
Year	TB of Respira Syste	atory	Tubercu (all for	ilosis² ms)	Poliomy	elitis	Syphi	lis¹	Gonorr	hea	AIDS	3
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
1950 1951 1952 1953 1954 1955 1956 1957 1958 1959	1,134 1,049 689 536 471 435 426 403 357 335	17.8 16.0 10.3 7.8 6.7 6.0 5.7 5.2 4.5	1,270 1,154 775 607 530 477 466 442 395 370	19.9 17.6 11.6 8.9 7.5 6.6 6.2 5.7 5.0 4.6	128 67 213 108 89 32 22 15 37	2.0 1.0 3.2 1.6 1.3 0.4 0.3 0.2 0.5	325 299 174 182 139 115 114 105 84 84	5.1 4.6 2.6 2.7 2.0 1.6 1.5 1.3 1.1	1 1 2 1 2 1 4 4 4 8	0.1	Namber	Trans
1960 1961 1962 1963 1964 1965 1966 1967 1968 1969	364 307 307 276 288 261 284 206 203 147	4.7 3.9 3.9 3.4 3.6 3.2 3.4 2.4 2.3 1.7	390 332 331 299 315 285 301 226 262 201	5.0 4.2 4.2 3.7 3.9 3.5 3.6 2.6 3.0 2.3	4 - 2 1 1 2	* * * * * * * * * * * * * * * * * * * *	79 71 94 72 66 65 63 44 29 26	1.0 0.9 1.2 0.9 0.8 0.8 0.5 0.3	7 7 3 1 3 2 - 1	0.1		
1970 1971 1972 1973 1974 1975 1976 1977 1978 1979	134 122 111 101 109 81 80 67 60 47	1.5 1.4 1.2 1.1 1.2 0.9 0.9 0.7 0.7	180 173 157 138 142 110 102 97 80 62	2.0 1.9 1.7 1.5 1.6 1.2 1.1 0.9 0.7	13356622	- * * 0.1 0.1 *	17 18 12 12 11 10 11 3 5	0.2 0.2 0.1 0.1 0.1 0.1	2 1			
1980 1981 1982 1983 1984 1985 1986 1987 1988	51 41 30 28 47 37 36 39 36 31	0.6 0.4 0.3 0.3 0.5 0.4 0.4 0.4 0.3	61 53 41 39 59 46 44 46 42 32	0.7 0.6 0.4 0.7 0.5 0.5 0.5 0.5	-		1 4 3 2 3 2 2 2 3	• • • • • • • • •	1 1	-	160 216 329	1.7 2.3 3.5
1990 1991 1992 1993 1994	28 20 30 26 33	0.3 0.2 0.3 0.3 0.3	43 41 49 38 37	0.5 0.4 0.5 0.4 0.4	- - - -	-	- 1 5 1	* *	- - 1	- - -	373 465 573 691 757	4.0 5.0 6.1 7.3 8.0

¹⁹⁹² estimated population is used to calculate 1993 and 1994 rates.

Source: Bureau of Infectious Disease Control, Disease Control Division, MDPH

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.

From 1901 through 1920, syphilis includes all other venereal diseases, beginning with 1968 excludes aortic aneurysms not specified as syphilitic.

Table 4.8

Number of Deaths and Death Rates¹ by Specified Causes
Michigan Residents, 1900 - 1994

	Heart Dis	ease	Cance (all form	r ²	Cerebrova Diseas	sçular	Accider (all form		Motor Vel Acciden	nicle ts⁵
Year	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
1900	2,836	117.1	1,460	60.3	2,136	88.2	1,740	71.9		
1901	3,040	123.6	1,484	60.3	2,147	87.3	1,901	77.3		
1902	3,302	132.1	1,483	59.3	2,097	83.9	1,796	71.9	İ	İ
1903	3,702	145.9	1,694	66.8	2,321	91.5	2,017	79.5		1
1904	3,981	154.5	1,728	67.1	2,431	94.3	2,035	79.0	İ	
1905	3.715	142.0	1,693	64.7	2,405	91.9	2,034	77.8		ŀ
1906	3,933	148.2	1,736	65.4	2,554	96.2	2,126	80.1		
	4,269	158.5	1,747	64.9	2,690	99.9	2,209	82.0		
1907	4,209	153.8	1,921	70.3	2,630	96.3	2,036	74.5		
1908 1909	4,202	157.1	1,948	70.3	2,739	98.8	1,903	68.7		
1910	4,581	163.0	2,105	74.9	3,091	110.0	2,158	76.8	49	1.7
1911	4,639	160.2	2,142	74.0	2,916	100.7	2,121	73.2	44	1.5
1912	5,324	178.5	2,291	76.8	2,707	90.8	2,005	67.2	75	2.5
1912	4,908	160.0	2,388	77.8	2,834	92.4	2,333	76.1	132	4.3
		162.5	2,414	76.6	2.993	94.9	2,108	66.8	120	3.8
1914	5,124	171.0	2,567	79.2	3,384	104.5	2,219	68.5	190	5.9
1915	5,538		2,710	81.5	3,559	107.0	2,853	85.8	257	7.7
1916	5,819	175.0	•		3,703	108.6	2,925	85.8	335	9.8
1917	6,103	178.9	2,765	81.1	3,493	99.9	2,599	74.3	279	8.0
1918 1919	6,091 5,651	174.2 157.7	2,931 2,990	83.8 83.5	3,483	97.2	2,612	72.9	328	9.2
			•	86.1	3.876	105.7	2,646	72.1	397	10.8
1920	6,732	183.5	3,158	89.1	3,931	103.8	2,476	65.4	403	10.6
1921	6,176	163.1	3,373		4,041	103.5	2,475	63.4	529	13.6
1922	6,897	176.7	3,481	89.2		109.9	2,475	70.3	677	16.8
1923	7,266	180.7	3,545	88.2	4,420			74.7	1,001	24.2
1924	6,985	168.8	3,824	92.4	4,241	102.5	3,090		1,103	25.9
1925	7,540	177.2	3,858	90.7	4,623	108.6	3,278	77.0		27.9
1926	8,281	189.4	4,087	93.5	4,663	106.6	3,557	81.3	1,221	
1927	8,780	195.5	4,264	95.0	4,378	97.5	3,634	80.9	1,389	30.9
1928	9,786	212.4	4,381	95.1	4,718	102.4	3,704	80.4	1,429	31.0
1929	10,185	215.6	4,571	96.7	4,694	99.3	3,913	82.8	1,552	32.8
1930	9,947	205.4	4,572	94.4	4,533	93.6	3,805	78.6	1,572	32.5
1931	10,206	209.0	4,763	97.5	4,388	89.8	3,630	74.3	1,516	31.0
1932	11,162	226.6	4,935	100.2	4,518	91.7	3,179	64.5	1,229	25.0
1933	11,509	231.7	5,055	101.8	4,318	86.9	3,304	66.5	1,278	25.7
1934	11,824	236.1	5,370	107.2	4,485	89.6	3,774	75.4	1,511	30.2
1935	12,456	246.7	5,399	106.9	4,420	87.5	3,771	74.7	1,676	33.2
1936	13,374	262.7	5,752	113.0	4,705	92.4	5,246	103.1	1,924	37.8
1937	13,233	257.8	5,732	111.7	4,378	85.3	4,580	89.2	2,187	42.6
1938	13,887	268.4	6,059	117.1	4,543	87.8	3,608	69.7	1,490	28.8
1939	14,898	285.7	6,296	120.7	4,415	84.7	3,761	72.1	1,553	29.8
1940	15,480	294.5	6,513	123.9	4,690	89.2	3,961	75.4	1,743	33.2
1941	15,761	289.8	6,551	120.5	4,698	86.4	4,450	81.8	2,156	39.6
1942	16,016	289.2	6,646	120.0	4,841	87.4	3,685	66.5	1,368	24.7
1942	17,816	331.3	7,127	132.5	5,311	98.8	3,480	64.7	1,025	19.1
	17,004	316.2	7,277	135.3	4,954	92.1	3,350	62.3	1,103	20.5
1944		320.5	7,486	137.7	5,295	97.4	3,432	63.1	1,199	22.1
1945	17,421	1	7,845	137.4	5,224	91.5	3,776	66.1	1,506	26.4
1946	17,691	309.9	8,188	134.9	5,426	89.4	3,848	63.4	1,499	24.7
1947	18,412	303.4		134.6	5,272	85.1	4,017	64.8	1,545	24.9
1948	18,726	302.3	8,336 8,697	136.9	5,438	85.6		60.4		23.5
1949	19,137	301.3	0,097	1.50.9	5,450	30.0	5,555		L	

¹⁹⁹² estimated population is used to calculate 1993 and 1994 rates.
Cancer includes leukemias, aleukemias, and Hodgkin's disease beginning with 1921.
Cerebrovascular disease was called Vascular Lesions Affecting-Central Nervous System prior to 1968.
Accidents exclude injuries undetermined whether accidentally or puposely inflicted since 1968.
Motor vehicle accidents do not include collision with heavier vehicles from 1910 through 1922. Motorcycle accidents are included beginning 1923.
Chronic liver disease and cirrhosis was called Cirrhosis of the Liver prior to 1979.
Atherosclerosis was called General Arteriosclerosis prior to 1968 and was called Arteriosclerosis from 1968-1978.

Atherosclerosis was called General Arteriosclerosis prior to 1968 and was called Arteriosclerosis from 1968-1978.

Table 4.8 (continued) Number of Deaths and Death Rates¹ by Specified Causes Michigan Residents, 1900 - 1994

Year	Diabete	es	Pneumo	nia	Chronic L Disease & Ci	iver rrhosis ⁶	Atheroscl	erosis ⁷
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
1900 1901 1902 1903 1904 1905 1906 1907 1908 1909	224 264 289 265 298 267 311 352 359 374	9.3 10.7 11.6 10.4 11.6 10.2 11.7 13.1 13.1	2,388 2,901 2,637 2,607 2,646 2,417 2,621 3,018 2,313 2,265	98.6 117.9 105.5 102.7 102.7 92.4 98.7 112.0 84.7 81.7				
1910 1911 1912 1913 1914 1915 1916 1917 1918	398 373 448 483 503 498 500 569 591 559	14.2 12.9 15.0 15.7 16.0 15.4 15.0 16.7 16.9	2,785 2,763 2,796 3,082 2,909 3,229 3,698 4,455 7,238 4,081	99.1 95.4 93.8 100.5 92.2 99.7 111.2 130.6 207.0 113.9	282	10.0		
1920 1921 1922 1923 1924 1925 1926 1927 1928 1929	577 586 650 635 661 746 743 819 905	15.7 15.5 16.7 15.8 16.0 17.5 17.0 18.2 19.6 19.8	5,794 2,849 3,728 4,719 3,332 3,294 4,440 3,543 4,518 4,216	157.9 75.3 95.5 117.4 80.5 77.4 101.5 78.9 98.1 89.2	261 267 251 256 319 326 340 373 361	6.9 6.8 6.2 6.2 7.5 7.5 7.6 8.1 7.6		
1930 1931 1932 1933 1934 1935 1936 1937 1938 1939	880 950 1,121 1,103 1,100 1,228 1,266 1,255 1,283 1,360	18.2 19.5 22.8 22.2 22.0 24.3 24.9 24.5 24.8 26.1	3,321 2,883 3,238 2,756 3,466 3,801 4,096 4,098 2,869 2,803	68.6 59.0 65.7 55.5 69.2 75.3 80.5 79.8 55.5 53.8	329 365 386 354 378 368 446 430 424 387	6.8 7.5 7.8 7.1 7.5 7.3 8.8 8.4 8.2 7.4	1,047 1,005 948 966 914 897 997 1,168 869 918	21.6 20.6 19.2 19.5 18.3 17.8 19.6 22.8 16.8 17.6
1940 1941 1942 1943 1944 1945 1946 1947 1948 1949	1,408 1,382 1,448 1,535 1,554 1,561 1,530 1,618 1,771 1,884	26.8 25.4 26.1 28.5 28.9 28.7 26.8 26.7 28.6 29.7	2,478 2,235 2,349 2,931 2,369 1,932 1,891 2,089 1,853 1,885	47.1 41.1 42.4 54.5 44.1 35.5 33.1 34.4 29.9 29.7	468 450 535 518 471 535 554 697 771 730	8.9 8.3 9.7 9.6 8.8 9.8 9.7 11.5 12.4 11.5	941 906 1,015 1,092 980 970 933 1,031 1,085 1,135	17.9 16.7 18.3 20.3 18.2 17.8 16.3 17.0 17.5

¹⁹⁹² estimated population is used to calculate 1993 and 1994 rates.

Cancer includes leukemias, aleukemias, and Hodgkin's disease beginning with 1921.

Cerebrovascular disease was called Vascular Lesions Affecting-Central Nervous System prior to 1968.

Accidents exclude injuries undetermined whether accidentally or puposely inflicted since 1968.

Motor vehicle accidents do not include collision with heavier vehicles from 1910 through 1922. Motorcycle accidents are included beginning 1923.

Chronic liver disease and cirrhosis was called Cirrhosis of the Liver prior to 1979.

Atherosclerosis was called General Arteriosclerosis prior to 1968 and was called Arteriosclerosis from 1968-1978.

Table 4.8 (continued) Number of Deaths and Death Rates¹ by Specified Causes Michigan Residents, 1900 - 1994

	Heart Dis	ease	Cance (all form	er²	cerebrova Diseas	sçular	Accide (all form		Motor Ve Accider	hicle its ⁵
Year	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
1950	20,521	322.1	8,685	136.3	6,376	100.1	3,783	59.4	1,680 1,806	26.4 27.6
1951	21,118	322.6	9,187	140.4	6,579	100.5	3,916	59.8	1,815	27.0
1952	21,247	316.8	9,256	138.0	6,521	97.2	3,901	58.2 63.8	2,051	29.9
1953	22,425	327.3	9,904	144.5	7,045	102.8	4,375	56.2	1,916	27.3
1954	22,362	318.4	10,105	143.9	6,964	99.1 101.7	3,948 4,213	58.2	2,129	29.4
1955	23,440	323.9	10,297	142.3	7,362	94.7	3,925	52.2	1.826	24.3
1956	24,661	328.1	10,489	139.6	7,114 7,632	97.8	3,643	46.7	1,680	21.5
1957	25,369	325.1	10,810	138.5 139.2	7,532	95.9	3,306	42.0	1,466	18.6
1958	25,215	320.6	10,946	139.2	7,700	96.7	3,666	46.1	1,587	19.9
1959	25,323	318.1	11,113	139.0	7,700		·		-	
1960	25,728	328.9	11,331	144.8	7,682	98.2	3,688 3.692	47.1 46.7	1,710 1,656	21.9 21.0
1961	25,519	322.9	11,476	145.2	7,745	98.0 98.0	3,692 3,758	47.3	1,668	21.0
1962	27,226	342.9	11,752	148.0	7,783	101.7	4,033	50.2	2.005	25.0
1963	27,483	342.3	12,078	150.4	8,168 7,940	98.0	4,416	54.5	2,286	28.2
1964	27,496	339.5	12,087	149.2 151.5	7,769	94.8	4,494	54.8	2,271	27.7
1965	28,134	343.1	12,419	150.4	7,732	93.0	4,737	57.0	2,407	29.0
1966	28,277	340.1 333.8	12,506 13,030	151.2	7,846	91.1	4,519	52.4	2,265	26.3
1967	28,757	342.1	13,030	153.2	7,913	91.2	4,603	53.1	2,466	28.4
1968 1969	29,680 29,396	336.6	13,328	152.6	7,706	88.2	4,766	54.6	2,579	29.5
	20.004	329.1	13,551	152.7	7,691	86.7	4,428	49.9	2,309	26.0
1970	29,204 30,095	335.4	13,594	151.5	7,826	87.2	4,426	49.3	2,274	25.3
1971 1972	30,865	342.0	14,045	155.6	7,999	88.6	4,566	50.6	2,450	27.1
1973	29,944	330.1	14,220	156.7	7,987	88.0	4,630	51.0	2,389	26.3
1974	29,220	320.8	14,241	156.3	7,645	83.9	4,211	46.2	1,929	21.2
1975	28,298	310.7	14,445	158.6	7,262	79.7	4,002	43.9	1,841	20.2
1976	29,233	320.6	14,880	163.2	7,354	80.7	3,912	42.9 43.1	1,993 1,993	21.8
1977	28,895	315.6	15,125	165.2	6,818	74.5	3,945 3,970	43.1	2,138	23.2
1978	29,406	319.6	15,249	165.7	6,520	70.9	3,839	41.5	1.967	21.3
1979	29,296	316.7	15,409	166.6	6,067	65.6	3,009	71.5	1,557	ļ
1980	29,790	321.6	15,828	170.9	6,164	66.6	3,627	39.2	1,880	20.3
1981	30,172	325.5	16,142	174.1	6,121	66.0	3,390	36.6	1,727	18.6
1982	30,099	326.2	16,566	179.5	5,839	63.3	3,113	33.7	1,555	16.9
1983	30,412	332.2	16,785	183.3	5,721	62.5	2,947	32.2 33.6	1,419 1,630	15.5 18.0
1984	30,100	331.7	16,907	186.3	5,631	62.1	3,049	35.5	1,630	18.4
1985	30,618	336.9	17,281	190.1	5,528	60.8	3,228 3,202	35.0	1,736	19.0
1986	31,270	342.0	17,321	189.4	5,421	59.3	3,202	34.2	1,725	18.8
1987	30,521	331.8	17,669	192.1	5,481 5,237	59.6 56.7	3,143	35.0	1,806	19.5
1988 1989	30,218 28,031	327.0	17,890 18,264	193.6 196.9	5,237	55.8	3,228	34.8	1,750	18.9
				109 1	5,090	54.8	3,137	33.7	1,494	15.9
1990	27,527	296.1	18,413	198.1	5,165	55.1	3,011	32.1	1,669	18.0
1991	27,517	293.5 284.8	19,204	203.7	5,087	53.9	2,844	30.1	1,426	15.1
1992	26,863	302.2		203.4	5,299	56.2	2,830	30.0		15.2
1993 1994	28,512 28,195	298.9		205.8	5,680	60.2	1	31.0	1,445	15.3

^{1 1992} estimated population is used to calculate 1993 and 1994 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 puposely inflicted since 1968.
5 Motor vehicle accidents do not include collision with heavier vehicles from 1910 through 1922. Motorcycle accidents are included beginning 1923.
5 Chronic liver disease and circhosis was called Circhosis of the Liver prior to 1979.

Chronic liver disease and cirrhosis was called Cirrhosis of the Liver prior to 1979.

Atherosclerosis was called General Arteriosclerosis prior to 1968 and was called Arteriosclerosis from 1968-1978.

Table 4.8 (continued) Number of Deaths and Death Rates¹ by Specified Causes Michigan Residents, 1900 - 1994

Year	Diabete	es	Pneumon	ia	Chronic L Disease & Ci	iver rrhosis ⁶	Atheroscle	rosis ⁷
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
1950 1951 1952 1953 1954 1955 1956 1957 1958 1959	1,438 1,374 1,339 1,419 1,469 1,415 1,443 1,510 1,595 1,715	22.6 21.0 20.0 20.7 20.9 19.6 19.2 19.4 20.3 21.5	1,358 1,619 1,571 1,538 1,380 1,538 1,723 2,045 2,076 1,810	21.3 24.7 23.4 22.4 19.6 21.3 22.9 26.2 26.4 22.7	616 569 599 715 677 805 788 861 818	9.7 8.7 8.9 10.4 9.6 11.1 10.5 11.0 10.4 10.2	1,296 1,312 1,294 1,270 1,170 1,237 1,251 1,248 1,300 1,403	20.3 20.0 19.3 18.5 16.7 17.1 16.6 16.0 16.5 17.6
1960 1961 1962 1963 1964 1965 1966 1967 1968 1969	1,784 1,778 1,908 2,049 2,055 2,153 2,243 2,182 2,298 2,188	22.8 22.5 24.0 25.5 25.4 26.3 27.0 25.3 26.5 25.1	2,002 1,692 1,824 1,995 1,714 1,987 2,026 1,973 2,341 2,229	25.6 21.4 23.0 24.8 21.2 24.2 24.4 22.9 27.0 25.5	840 858 859 958 995 1,068 1,152 1,240 1,259 1,430	10.7 10.9 10.8 11.9 12.3 13.0 13.9 14.4 14.5	1,352 1,448 1,477 1,652 1,559 1,726 1,745 1,730 1,262 1,289	17.3 18.3 18.6 20.6 19.2 21.1 21.0 20.1 14.5 14.8
1970 1971 1972 1973 1974 1975 1976 1977 1978 1979	2,180 2,103 2,222 2,074 1,940 1,819 1,719 1,615 1,551 1,449	24.6 23.4 24.6 22.9 21.3 20.0 18.9 17.6 16.9 15.7	2,004 1,981 2,009 1,958 1,637 1,690 1,812 1,639 1,828 1,454	22.6 22.1 22.3 21.6 18.0 18.6 19.9 17.9 19.9	1,558 1,657 1,778 1,711 1,650 1,574 1,486 1,356 1,351 1,367	17.6 18.5 19.7 18.9 18.1 17.3 16.3 14.8 14.7	1,174 1,187 1,153 1,142 1,187 1,119 1,207 1,164 1,146 1,173	13.2 13.2 12.8 12.6 13.0 12.3 13.2 12.7 12.5 12.7
1980 1981 1982 1983 1984 1985 1986 1987 1988 1989	1,467 1,487 1,347 1,470 1,476 1,387 1,494 1,479 1,522 2,052	15.8 16.0 14.6 16.1 16.3 15.3 16.3 16.1 16.5 22.1	1,712 1,644 1,665 2,007 2,018 2,193 2,513 2,377 2,626 2,633	18.5 17.7 18.0 21.9 22.2 24.1 27.5 25.8 28.4 28.4	1,362 1,253 1,244 1,250 1,194 1,256 1,120 1,099 1,080 1,170	14.7 13.5 13.5 13.7 13.2 13.8 12.2 11.9 11.7	1,254 1,270 1,284 1,269 1,142 1,173 1,214 1,168 1,187 832	13.5 13.7 13.9 13.9 12.6 12.9 13.3 12.7 12.8 9.0
1990 1991 1992 1993 1994	2,009 2,113 2,114 2,105 2,224	21.6 22.5 22.4 22.3 23.6	2,863 2,773 2,697 2,981 2,877	30.8 29.6 28.6 31.6 30.5	1,123 1,060 947 1,006 1,035	12.1 11.3 10.0 10.7 11.0	807 823 774 753 805	8.7 8.8 8.2 8.0 8.5

¹⁹⁹² estimated population is used to calculate 1993 and 1994 rates. Cancer includes leukemias, aleukemias, and Hodgkin's disease beginning with 1921.

Cerebrovascular disease was called Vascular Lesions Affecting-Central Nervous System prior to 1968.

Accidents exclude injuries undetermined whether accidentally or puposely inflicted since 1968.

Motor vehicle accidents do not include collision with heavier vehicles from 1910 through 1922. Motorcycle accidents are included beginning 1923.

Chronic liver disease and cirrhosis was called Cirrhosis of the Liver prior to 1979.

Atherosclerosis was called General Arteriosclerosis prior to 1968 and was called Arteriosclerosis from 1968-1978.

Table 4.9 Selected Vital Statistics by County Michigan Residents, 1994

Area	Population Estimate ¹	Deaths	Live Births	Low Weight Live Births	Infant Deaths	Neonatal Deaths	Perinatal Deaths	Fetal Deaths	Marriages ²	Divorces ²
Michigan ³	9,433,666	82,644	137,844	10,765	1,184	775	1,388	731	70,966	39,795
Alcona	10,254	167	105	5		_	_		76	44
Alger	9,349	101	82	3	1	1	1	-	78	31
Allegan	93,078	746	1,399	89	7	5	10	5	770	441
Alpena	31,000	318	356	33	1	-	5	5	253	149
Antrim	18,897	217	258	16	2	1	3	2	167	86
Arenac	15,625	188	194	11	2	2	4	3	107	61
Baraga	7,828	109	99	6	1	-	-	-	64	24
Barry	51,196	423	709	33	5	4	6	2	434	237
Bay	112,131	1,035	1,413	105	6	3	12	10	926	449
Benzie	12,616	150	152	10	1	-	2	2	128	79
Berrien	161,466	1,549	2,228	197	16	9	18	12	1,310	671
Branch	41,871	371	507	23	5	1	5	4	332	237
Calhoun	138,381	1,348	1,969	149	14	8	13	6	1,177	727
Cass	49,112	446	554	37	8	5	7	5	395	233 117
Charlevoix	22,225	206	321	14	1	1	2	1	209	'''
Cheboygan	21,780	260	254	18	3	3	3	1	222 293	86 121
Chippewa	35,640	285	420	22	4	4	6	2	293	149
Clare	26,384	350	369	39	3	3	6	4	425	276
Clinton	59,397	391	809	42	4	1	5 9	8	104	65
Crawford	12,972	120	161	16	1	1		•	104	
Delta	38,208	377	429	20	9	7	7	1	347 215	176 127
Dickinson	27,014	292	308	17	1			-	746	761
Eaton	95,253	696	1,159	64	7	3	6	3	280	149
Emmet	26,057	283	366	22	-	-	83	27	1	1,881
Genesee	433,508	3,629	6,610	631	96	63	63	21	3,320	1,001
Gladwin	23,007	291	270	19	1	1	1	1	177 134	105 65
Gogebic	17,891	228	167	12	1	1	3	2	653	386
Grand Traverse		551	903	40	3	-	3	4	288	176
Gratiot	39,450	394	515	33	4	2 4	6	6	337	248
Hillsdale	44,407	403	582	34	9	4	9	"	357	
Houghton	35,831	401	395		1	1	4	3	232	117
Huron	34,977	424	448	1	2	1	3	2	235	131
Ingham	281,798		4,051	1	39	23	26	7	2,334	1,165
lonia	57,986	433		1	5	2	8	6	426	268
losco	30,211	378	268	24	6	4	5	2	182	96
Iron	13,136			- K	-	-	-		93	
Isabella	56,212	344	,		6	5	6	2	457	231
Jackson	151,740	1,365			16	13	25	13	1,207	
Kalamazoo	225,648				16	11	27	19	1,958	
Kalkaska	14,038	135	191	16	1	1	1	-	122	00

 ^{1 1992} estimated population.
 2 By county of occurrence rather than county of residence.
 3 Unknown county of residence is included in the Michigan "Total" column only.

Table 4.9 *(continued)*Selected Vital Statistics by County Michigan Residents, 1994

Area	Population Estimate ¹	Deaths	Live Births	Low Weight Live Births	Infant Deaths	Neonatal Deaths	Perinata! Deaths	Fetal Deaths	Marriages ²	Divorces ²
Kent	511,997	3,884	8,778	602	67	45	107	72	4,777	2,094
Keweenaw	1,706	28	16	002	-	-	10,	14	19	2,034
Lake	9,029	141	114	7	1	1	1	_	67	37
Lapeer	78,526	519	1,093	55	4		7	6	660	311
Leelanau	17,292	159	211	10	1	1	1	J	120	87
Lecianau	17,292	139	211	10		, I		-	120	07
Lenawee	94,132	741	1,168	61	5	3	14	11	648	429
Livingston	122,658	791	1,728	97	6	3	10	8	1,010	561
Luce	5,604	79	68	7	-	-	2	2	39	27
Mackinac	10,752	132	137	2	•	-	-	-	185	51
Macomb	728,220	6,254	9,806	618	59	40	89	56	6,045	3,049
Manistee	21,925	324	257	16	1	1	3	2	185	101
Marquette	71,428	589	852	51	7	6	9	3	641	353
Mason	26,420	282	320	15	-	-	2	2	234	126
Mecosta	38,553	295	401	22	3	3	5	2	286	128
Menominee	24,593	280	270	15	3	2	1	-	236	85
Midland	77,950	517	1,110	70	12	9	13	6	627	363
Missaukee	12,739	127	175	13		-	1	1	92	58
Monroe	135,962	1,143	1,777	104	15	8	14	6	943	627
Montcalm	55,445	506	800	40	3	-	1	1	471	303
Montmorency	9,355	130	91	4	. 1	-	1	1	69	36
Muskegon	161,980	1,546	2,355	163	27	14	29	18	1,329	835
Newaygo	40,756	417	602	38	7	4	8	4	353	226
Oakland	1,118,611	8,362	16,277	1,116	89	64	138	81	9,089	4,913
Oceana	22,954	208	338	18	2	2	2	-	215	115
Ogemaw	19,640	244	250	14	2	2	1	-	141	111
Ontonagon	8,761	123	75	1	_	_	_	_	63	32
Osceola	20,638	207	279	15	_	_	2	2	189	120
Oscoda	8,222	105	109	7	1	_	2	2	78	31
Otsego	19,096	155	264	23	2	2	2	1	167	85
Ottawa	197,297	1,257	3,130	178	23	17	23	7	1,503	77
Presque Isle	13.865	181	124	7	_	_	1	1	80	41
Roscommon	20,861	308	240	11	1	1	2	2	174	111
	212,477	1,925	3,227	281	29	21	34	14	1,600	883
Saginaw St. Clair	150,085	1,925	2,081	147	19	12	15	4		719
St. Clair St. Joseph	59,388	1,376	2,061 860	147 68	19	2	10	4 8	1,145 509	337
St. Joseph	39,300	505	860	00	4	2	10	0	509	337
Sanilac	40,810	468	520	40	7	3	3	1	312	159
Schoolcraft	8,478	99	105	7	1	1	2	1	76	36
Shiawassee	70,832	588	947	60	5	3	8	6	578	306
Tuscola	56,130	491	732	47	6	4	4	2	433	244
Van Buren	72,331	667	1,121	78	4	2	8	6	637	402
Washtenaw	288,025	1,622	4,001	276	28	21	46	28	2,198	1,117
vvasileilaw										
Wayne	2,096,179	21,349	34,816	3,750	427	282	419	181	11,015	7,540

¹⁹⁹² estimated population.

By county of occurrence rather than county of residence.

Unknown county of residence is included in the Michigan "Total" column only.

Table 4.10
Selected Vital Statistics Rates¹ by County
Michigan Residents, 1994

Area	Deaths	Live Births	Low Weight Live Births ²	Infant Deaths	Neonatal Deaths	Perinatal Deaths	Fetal Deaths	Marriages ³	Divorces ³
Michigan ³	8.8	14.6	78.1	8.6	5.6	10.0	5.3	15.0	8.4
viioriiga							_	14.8	8.6
Alcona	16.3	10.2	*		-		_	16.7	6.6
Alger	10.8	8.8	•					16.7	9.5
Allegan	8.0	15.0	63.6	5.0	•	7.1			9.6
Alpena	10.3	11.5	92.7	*	-			16.3	
Antrim	11.5	13.7	62.0	*	*	•		17.7	9.1
	12.0	12.4	56.7			•		13.7	7.8
Arenac			60.6	•		-	-	16.4	6.1
Baraga	13.9	12.6		*	•	8.4		17.0	9.3
Barry	8.3	13.8	46.5			8.4	7.0	16.5	8.0
Bay	9.2	12.6	74.3	4.2		0.4	7.5	20.3	12.5
Benzie	11.9	12.0	65.8	•	-			20.0	
Berrien	9.6	13.8	88.4	7.2	4.0	8.0	5.4	16.2	8.3
Branch	8.9	12.1	45.4	•	*	*	_ <u>"</u>	15.9	11.3
Calhoun	9.7	14.2	75.7	7.1	4.1	6.6	3.0	17.0	10.5
	9.1	11.3	66.8	14.4		12.5	*	16.1	9.5
Cass Charlevoix	9.3	14.4	43.6	•	*	•	*	18.8	10.5
	44.0	11.7	70.9		*	•	•	20.4	7.9
Cheboygan	11.9		52.4			14.2	•	16.4	6.8
Chippewa	8.0	11.8				16.1	*	18.3	11.3
Clare	13.3	14.0	105.7			*		14.3	9.3
Clinton	6.6	13.6	51.9			53.3	47.3	16.0	10.0
Crawford	9.3	12.4	99.4	•		55.5	47.3	10.0	10.0
Delta	9.9	11.2	46.6	21.0	16.3	16.3	•	18.2	9.2
Dickinson	10.8	11.4	55.2	•	-	-	-	15.9	9.4
Eaton	7.3	12.2	55.2	6.0	•	5.2	•	15.7	16.0
	10.9	14.0	60.1	-	-	•	•	21.5	11.4
Emmet Genesee	8.4	15.2	95.5	14.5	9.5	12.5	4.1	15.3	8.7
		44.7	70.4			•	•	15.4	9.1
Gladwin	12.6	11.7				•	•	15.0	7.3
Gogebic	12.7	9.3	71.9				•	19.4	11.5
Grand Traverse	8.2	13.4	44.3			11.6	•	14.6	8.9
Gratiot	10.0	13.1	64.1			15.3	10.2	15.2	11.2
Hillsdale	9.1	13.1	58.4	15.5		15.5	10.2	10.2	''
Houghton	11.2	11.0	30.4	•	•	•	•	12.9	6.5
Huron	12.1	12.8	46.9		•	*		13.4	7.5
ingham	6.6	14.4	75.0	9.6	5.7	6.4	1.7	16.6	8.3
•	7.5	14.1	68.5	•	*	9.7	7.3	14.7	9.2
lonia losco	12.5	8.9	89.6	22.4	*	*	•	12.0	6.4
	400	9.2	57.9	_	_		_	14.2	9.0
iron	18.3		47.2	9.8	•	9.7	•	16.3	8.2
Isabella	6.1	10.9		7.8	6.3	12.0	6.3	15.9	10.3
Jackson	9.0	13.6	75.1	1	3.5	8.5	6.0	17.4	9.3
Kalamazoo	7.4	14.0	63.8	5.1	3.5	0.5	0.0	17.4	12.1
Kalkaska	9.6	13.6	83.8	"	i -		•	11.4	

 ¹⁹⁹² estimated population is used to calculate rates.
 Ratio per 1,000 live births.
 By county of occurrence rather than county of residence. Rate of persons per 1,000 population rather than events per population.

Table 4.10 *(continued)*Selected Vital Statistics Rates¹ by County
Michigan Residents, 1994

Area	Deaths	Live Births	Low Weight Live Births ²	Infant Deaths	Neonatal Deaths	Perinatal Deaths	Fetal Deaths	Marriages ³	Divorces
Kent	7.6	17.1	68.6	7.6	5.1	12.1	8.1	18.7	8.2
Keweenaw	16.4	9.4	-	-	".		J. 1	22.3	9.4
Lake	15.6	12.6	61.4	*		*	_	14.8	8.2
Lapeer	6.6	13.9	50.3	*	•	6.4	5.5	16.8	7.9
Leelanau	9.2	12.2	47.4	•	•	•	-	13.9	10.1
Lenawee	7.9	12.4	52.2	•		11.9	9.3	13.8	9.1
Livingston	6.4	14.1	56.1	3.5	*	5.8	4.6	16.5	9.1
Luce	14.1	12.1	102.9	•	-	•	*	13.9	9.6
Mackinac	12.3	12.7	*	-	-	-	-	34.4	9.5
Macomb	8.6	13.5	63.0	6.0	4.1	9.0	5.7	16.6	8.4
Manistee	14.8	11.7	62.3	•	•		*	16.9	9.2
Marquette	8.2	11.9	59.9	8.2	7.0	10.5	*	17.9	9.9
Mason	10.7	12.1	46.9	•	-	, • i	*	17.7	9.5
Mecosta	7.7	10.4	54.9	•			•	14.8	6.6
Menominee	11.4	11.0	55.6	•	•	*	-	19.2	6.9
Midland	6.6	14.2	63.1	10.8	8.1	11.6	5.4	16.1	9.3
Missaukee	10.0	13.7	74.3	-	-	•	*	14.4	9.1
Monroe	8.4	13.1	58.5	8.4	4.5	7.9	3.4	13.9	9.2
Montcalm	9.1	14.4	50.0	*	-	•	*	17.0	10.9
Montmorency	13.9	9.7	•	•	-	•	•	14.8	7.7
Muskegon	9.5	14.5	69.2	11.5	5.9	12.2	7.6	16.4	10.3
Newaygo	10.2	14.8	63.1	11.6	•	13.2	•	17.3	11.1
Oakland	7.5	14.6	68.6	5.5	3.9	8.4	5.0	16.3	8.8
Oceana	9.1	14.7	53.3	•		•	-	18.7	10.0
Ogemaw	12.4	12.7	56.0	•	*	•	-	14.4	11.3
Ontonagon	14.0	8.6	•	-	-	-	-	14.4	7.3
Osceola	10.0	13.5	53.8	-	-	•	*	18.3	11.6
Oscoda	12.8	13.3	64.2	*	-	•	•	19.0	7.5
Otsego	8.1	13.8	87.1	•	_ •		•	17.5	8.9
Ottawa	6.4	15.9	56.9	7.3	5.4	7.3	2.2	15.2	8.0
Presque Isle	13.1	8.9	56.5	-	-	•	*	11.5	5.9
Roscommon	14.8	11.5	45.8	•	•	•		16.7	10.6
Saginaw	9.1	15.2	87.1	9.0	6.5	10.5	4.3	15.1	8.3
St. Clair	9.2	13.9	70.6	9.1	5.8	7.2		15.3	9.6
St. Joseph	9.5	14.5	79.1	*	•	11.5	9.2	17.1	11.3
Sanilac	11.5	12.7	76.9	13.5	•	•	*	15.3	7.8
Schoolcraft	11.7	12.4	66.7	*	•	*	*	17.9	8.5
Shiawassee	8.3	13.4	63.4	*	•	8.4	6.3	16.3	8.6
Tuscola	8.7	13.0	64.2	8.2			•	15.4	8.7
Van Buren	9.2	15.5	69.6	•	•	7.1	5.3	17.6	11.1
Washtenaw	5.6	13.9	69.0	7.0	5.2	11.4	6.9	15.3	7.8
Wayne	10.2	16.6	107.7	12.3	8.1	12.0	5.2	10.5	7.2
Wexford	10.5	14.8	50.0	*	-	*	•	20.1	13.8

 ^{1 1992} estimated population is used to calculate 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.

Table 4.11 Live Births with Selected Risk Factors by County Michigan Residents, 1994

Area	Medical Risk Presen	Factor	Complicat of Labor/De	ions livery²	Abnormal Co of Newb		Mother Sm While Preg	oked mant	Mother Drank While Preg	
	Number	%	Number	%	Number	%	Number	%	Number	%
Michigan	25,230	18.3	35,583	25.8	14,365	10.4	25,468	18.5	2,391	1.7
Alcona	30	28.6	35	33.3	16	15.2	27	25.7	2	*
Alger	10	12.2	18	22.0	3	•	18	22.0	-	
Allegan	195	13.9	366	26.2	125	8.9	231	16.5	18	1.3
Alpena	130	36.5	144	40.4	46	12.9	93	26.1	6	1.7
Antrim	44	17.1	76	29.5	12	4.7	65	25.2	1	•
Arenac	47	24.2	57	29.4	6	3.1	56	28.9	3	•
Baraga	20	20.2	31	31.3	5	*	35	35.4	1	
Barry	152	21.4	234	33.0	69	9.7	142	20.0	6	0.8
Bay	221	15.6	333	23.6	85	6.0	328	23.2	10	0.7
Benzie	22	14.5	44	28.9	5	•	38	25.0	5	•
Berrien	433	19.4	459	20.6	145	6.5	379	17.0	66	3.0
Branch	96	18.9	164	32.3	12	2.4	137	27.0	3	<u>"</u>
Calhoun	331	16.8	577	29.3	73	3.7	458	23.3	55	2.8
Cass	143	25.8	181	32.7	68	12.3	149	26.9	13	2.3
Charlevoix	59	18.4	129	40.2	26	8.1	70	21.8	3	
Cheboygan	59	23.2	96	37.8	17	6.7	73	28.7	1	*
Chippewa	56	13.3	121	28.8	15	3.6	115	27.4		
Clare	61	16.5	70	19.0	30	8.1	82	22.2		1.6
Clinton	131	16.2	233	28.8	36	4.4	73	9.0		1.9
Crawford	56	34.8	64	39.8	11	6.8	69	42.9	1	*
Delta	126	29.4	116	27.0	17	4.0	99	23.1		1.4
Dickinson	38	12.3	65	21.1	12	3.9	81	26.3	1	4.2
Eaton	201	17.3	312	26.9	83	7.2	141	12.2		2.8
Emmet	80	21.9	116	31.7	13	3.6	61	16.7		
Genesee	759	11.5	1,144	17.3	264	4.0	1,275	19.3	60	0.9
Gladwin	44	16.3	54	20.0	20	7.4	62	23.0		3.0
Gogebic	25	15.0	55	32.9	6	3.6	25	15.0	L .	3.8
Grand Traverse	126	14.0	221	24.5	38	4.2	165	18.3	1	3.0
Gratiot	62	12.0	127	24.7	31	6.0	114	22.1		1.2
Hillsdale	154	26.5	179	30.8	28	4.8	160	21.5	' '	1.4
Houghton	122	30.9	147	37.2		5.3	90	22.8	1	4.1
Huron	72	16.1	149	33.3	23	5.1	101	22.5	·	2.2
Ingham	799	19.7	1,353	33.4		8.1	287	7.1		0.7
Ionia	131	16.0	176	21.5	102	12.5	174	34.7	-	3.4
losco	125	46.6	130	48.5	21	7.8	93	34.	, ,	
Iron	16	13.2		19.0		5.0	50	41.3	I	7.4
Isabella	133	21.6		26.5		6.7	112	18.2	-	0.
Jackson	259	12.6		34.5		1.6	519	25.2		1.
Kalamazoo	853	26.9		49.4		5.8	597	18.4 33.4		3.
Kalkaska	28	14.7	50	26.2	! 14	7.3	64	33.	5	J 3.

Examples of medical risk factors include: anemia, diabetes, hypertension, eclampsia, renal disease, maternal drug use.

Examples of complications of labor and/or delivery include: abruptio placenta, seizures during labor, dysfunctional labor, fetal distress, breech/malpresentation, cord prolapse.

breech/maipresentation, cord prolapse.

Examples of abnormal conditions of the newborn include: anemia, birth injury, fetal alcohol syndrome, hyaline membrane disease, seizures.

Congenital anomalies reported have increased due to a change in reporting procedure.

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 Michigan Residents, 1994

Area	Medical Risk Preser		Complica of Labor/De	tions livery ²	Abnormal Co of Newb	onditions orn ³	Mother Sr While Pre	noked gnant	Mother Drank While Pres	
	Number	%	Number	%	Number	%	Number	%	Number	%
Kent	1,102	12.6	1,802	20.5	2,447	27.9	1,174	13.4	147	1.7
Keweenaw	6	37.5	6	37.5	2	•	3		1	*
Lake	22	19.3	36	31.6	13	11.4	34	29.8	1	*
Lapeer	210	19.2	270	24.7	116	10.6	208	19.0	11	1.0
Leelanau	44	20.9	55	26.1	10	4.7	30	14.2	3	•
Lenawee	194	16.6	360	30.8	81	6.9	249	21.3	14	1.2
Livingston	278	16.1	487	28.2	92	5.3	282	16.3	33	1.9
Luce	16	23.5	20	29.4	6	8.8	30	44.1	2	*
Mackinac	28	20.4	54	39.4	5	*	32	23.4	1	*
Macomb	2,110	21.5	2,791	28.5	2,011	20.5	2,052	20.9	160	1.6
Manistee	37	14.4	75	29.2	7	2.7	63	24.5	3	
Marquette	105	12.3	186	21.8	42	4.9	153	18.0	12	1.4
Mason	57	17.8	70	21.9	17	5.3	69	21.6	4	•
Mecosta	70	17.5	103	25.7	38	9.5	106	26.4	3	•
Menominee	109	40.4	111	41.1	26	9.6	62	23.0	5	*
Midland	220	19.8	330	29.7	87	7.8	184	16.6	6	0.5
Missaukee	79	45.1	26	14.9	5	•	36	20.6	_	_
Monroe	446	25.1	572	32.2	189	10.6	366	20.6	13	0.7
Montcalm	81	10.1	163	20.4	106	13.3	188	23.5	15	1.9
Montmorency	27	29.7	33	36.3	11	12.1	36	39.6	-	•
Muskegon	155	6.6	277	11.8	114	4.8	561	23.8	14	0.6
Newaygo	136	22.6	171	28.4	101	16.8	135	22.4	6	1.0
Oakland	4,028	24.7	4,670	28.7	2,077	12.8	2,418	14.9	273	1.7
Oceana	45	13.3	91	26.9	19	5.6	78	23.1	7	2.1
Ogemaw	55	22.0	61	24.4	9	3.6	74	29.6	5	
Ontonagon	17	22.7	24	32.0	4	*	17	22.7	2	
Osceola	89	31.9	55	19.7	19	6.8	82	29.4	5	
Oscoda	23	21.1	26	23.9	5		29	26.6	1	
Otsego	59	22.3	114	43.2	25	9.5	71	26.9	2	*
Ottawa	288	9.2	621	19.8	450	14.4	260	8.3	30	1.0
Presque Isle	36	29.0	42	33.9	15	12.1	32	25.8	. •	-
Roscommon	54	22.5	67	27.9	14	5.8	83	34.6	4	•
Saginaw	689	21.4	948	29.4	330	10.2	670	20.8	66	2.0
St Clair	365	17.5	421	20.2	221	10.6	569	27.3	31	1.5
St Joseph	161	18.7	292	34.0	51	5.9	202	23.5	17	2.0
Sanilac	72	13.8	119	22.9	35	6.7	136	26.2	12	2.3
Schoolcraft	21	20.0	34	32.4	5	•	34	32.4	1	•
Shiawassee	140	14.8	260	27.5	43	4.5	163	17.2	20	2.1
Tuscola	131	17.9	180	24.6	55	7.5	188	25.7	10	1.4
Van Buren	223	19.9	426	38.0	51	4.5	234	20.9	32	2.9
Washtenaw	634	15.8	1,272	31.8	107	2.7	471	11.8	77	1.9
Wayne	5,962	17.1	7,485	21.5	3,202	9.2	6,562	18.8	739	2.1
Wexford	150	37.5	80	20.0	12	3.0	131	32.8	11	2.8
	7	53.8	8	61.5	1		3	*	• • •	

Examples of medical risk factors include: anemia, diabetes, hypertension, eclampsia, renal disease, maternal drug use.

Examples of complications of labor and/or delivery include: abruptio placenta, seizures during labor, dysfunctional labor, fetal distress, breech/malpresentation, cord prolapse.

Examples of abnormal conditions of the newborn include: anemia, birth injury, fetal alcohol syndrome, hyaline membrane disease, seizures.

Congenital anomalies reported have increased due to a change in reporting procedure.

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
Michigan Residents, 1994

Area	Congenital An	omalies	inadequa Prenatal Ca	ite are⁵	Mother's Edu <12 Gra	ucation de	Mother <18 Years of	Age
	Number	%	Number	%	Number	%	Number	%
Michigan	1,240	0.9	12,927	9.4	25,324	18.4	6,697	4.9
Alcona			3	•	22	21.0	4	•
Alger	- I	-	2	*	6	7.3	2	•
Allegan	13	0.9	68	4.9	250	17.9	76	5.4
Alpena	3	*	9	2.5	49	13.8	11	3.1
Antrim	2	*	22	8.5	48	18.6	14	5.4
Arenac	2	•	15	7.7	37	19.1	8	4.1
Baraga	2	*	3	*	11	11.1	6	6.1
Barry	4	*	20	2.8	100	14.1	28	3.9
Bay	22	1.6	34	2.4	222	15.7	59	4.2
Benzie	-	-	19	12.5	18	11.8	7	4.6
Berrien	35	1.6	262	11.8	578	25.9	182	8.2
Branch	15	3.0	48	9.5	113	22.3	19	3.7
Calhoun	16	0.8	114	5.8	442	22.4	140	7.1
Cass	20	3.6	41	7.4	150	27.1	47	8.5
Charlevoix	3	*	12	3.7	34	10.6	13	4.0
Cheboygan	3	*	10	3.9	40	15.7	12	4.7
Chippewa	6	1.4	19	4.5	57	13.6	12	2.9
Clare	4	*	15	4.1	85	23.0	17	4.6
Clinton	10	1.2	42	5.2	72	8.9	25	3.1
Crawford	2	1.2	6	3.7	53	32.9	12	7.5
Delta	18	4.2	16	3.7	67	15.6	24	5.6
Dickinson	3	•	19	6.2	25	8.1	9	2.9
Eaton	13	1.1	67	5.8	118	10.2	40	3.5
Emmet	1	*	12	3.3	39	10.7	10	2.7
Genesee	31	0.5	292	4.4	1,518	23.0	460	7.0
Gladwin	5	•	26	9.6	78	28.9	17	6.3
Gogebic	5	•	7	4.2	23	13.8	8	4.8
Grand Traverse	I	0.8	59	6.5	79	8.7	23	2.5
Gratiot	9	1.7	28	5.4	77	15.0	26	5.0
Hillsdale	13	2.2	47	8.1	153	26.3	33	5.7
Houghton	10	2.5	19	4.8	34	8.6	11	2.6
Huron	10	2.2	23	5.1	52	11.6	13	2.
ingham	49	1.2	320	7.9	704	17.4	206	5.
Ionia	15	1.8	49	6.0	123	15.0	32	3.9
losco	5	*	20	7.5	60	22.4	13	4.9
Iron	_	-	10	8.3	18	14.9	5	
Isabella	10	1.6	30	4.9	67	10.9	16	2.
Jackson	9	0.4	339	16.4	390	18.9	146	7.
Kalamazoo	24	0.8	111	3.5		15.5	127	4.0
Kalkaska	2	*	18	9.4	44	23.0	17	8.9

Examples of medical risk factors include: anemia, diabetes, hypertension, eclampsia, renal disease, maternal drug use.

Examples of complications of labor and/or delivery include: abruptio placenta, seizures during labor, dysfunctional labor, fetal distress, breech/malpresentation, cord prolapse.

Examples of abnormal conditions of the newborn include: anemia, birth injury, fetal alcohol syndrome, hyaline membrane disease, seizures.

Congenital anomalies reported have increased due to a change in reporting procedure.

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. the length of pregnancy.

Table 4.11 *(continued)*Live Births with Selected Risk Factors by County
Michigan Residents, 1994

Area	Congenital A Report	nomalies ed ⁴	Inadequa Prenatal C	ate are ⁵	Mother's Ed	lucation ade	Mothe <18 Years	er of Age
	Number	%	Number	%	Number	%	Number	%
Kent	37	0.4	490	5.6	1,466	16.7	425	4.8
Keweenaw	-	-	1	*	1	*	l <u>-</u>	-
Lake	6	5.3	8	7.0	29	25.4	7	6.1
Lapeer Leelanau	16	1.5	44 8	4.0 3.8	118 23	10.8	33 4	3.0
Leelanau	•		0	3.6	23	10.9	4	
Lenawee	17	1.5	86	7.4	199	17.0	49	4.2
Livingston	23	1.3	197	11.4	112	6.5	23	1.3
Luce	2	*	3	*	20	29.4	5	•
Mackinac	1	*	7	5.1	16	11.7	4	•
Macomb	101	1.0	654	6.7	1,043	10.6	212	2.2
Manistee	7	2.7	21	8.2	43	16.7	6	2.3
Marquette	15	1.8	24	2.8	49	5.8	18	2.1
Mason	3	*	23	7.2	63	19.7	10	3.1
Mecosta	11	2.7	32	8.0	87	21.7	19	4.7
Menominee	4	*	17	6.3	31	11.5	10	3.7
Midland	9	0.8	19	1.7	100	9.0	20	1.8
Missaukee	2	*	6	3.4	29	16.6	9	5.1
Monroe	22	1.2	139	7.8	250	14.1	87	4.9
Montcalm	11	1.4	54	6.8	172	21.5	44	5.5
Montmorency	2	*	2	*	22	24.2	5	*
Muskegon	3	•	155	6.6	502	21.3	179	7.6
Newaygo	2	*	34	5.6	127	21.1	27	4.5
Oakland	183	1.1	963	5.9	1,619	9.9	371	2.3
Oceana	3	*	15	4.4	102	30.2	25	7.4
Ogemaw	5	*	9	3.6	37	14.8	13	5.2
Ontonagon	_	_	1		4		2	
Osceola	5	*	19	6.8	61	21.9	15	5.4
Oscoda	3	*	11	10.1	36	33.0	4	*
Otsego	2	*	8	3.0	30	11.4	6	2.3
Ottawa	18	0.6	104	3.3	362	11.6	100	3.2
Presque Isle	_	-	3	•	18	14.5	5	*
Roscommon	2	*	12	5.0	56	23.3	15	6.3
Saginaw	27	0.8	161	5.0	748	23.2	234	7.3
St Clair	28	1.3	112	5.4	375	18.0	84	4.0
St Joseph	8	0.9	51	5.9	224	26.0	58	6.7
Sanilac	10	1.9	40	7.7	95	18.3	19	3.7
Schoolcraft	3	*	4	•	15	14.3	4	•
Shiawassee	5	*	43	4.5	157	16.6	50	5.3
Tuscola	4	•	26	3.6	136	18.6	34	4.6
Van Buren	10	0.9	80	7.1	311	27.7	76	6.8
Washtenaw	16	0.4	1,031	25.8	315	7.9	123	3.1
Wayne	206	0.6	5,902	17.0	9,503	27.3	2,314	6.6
Wexford	4	*	31	7.8	71	17.8	19	4.8
Unknown	2	*	1	*	1		_	_

Examples of medical risk factors include: anemia, diabetes, hypertension, eclampsia, renal disease, maternal drug use.

Examples of complications of labor and/or delivery include: abruptio placenta, seizures during labor, dysfunctional labor, fetal distress, breech/malpresentation, cord prolapse.

Examples of abnormal conditions of the newborn include: anemia, birth injury, fetal alcohol syndrome, hyaline membrane disease, seizures.

Congenital anomalies reported have increased due to a change in reporting procedure.

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 4.12
Live Births by Age of Mother and County
Michigan Residents, 1994

							Ag	e of Moth	ner					
Area	Total	<15	15	16	17	18	19	15-19	20-24	25-29	30-34	35-39	40 +	Not Stated
 Michigan	137,844	397	947	1,968	3,385	4,849	5,902	17,051	34,448	39,789	32,148	12,066	1,912	33
Aleena	105	_	1	-	3	7	11	22	35	22	19	5	1	1
Alcona	82	_	<u>:</u>	2		2	9	13	18	28	14	8	1	-
Alger Allegan	1,399	1	10	16	49	55	52	182	346	410	325	122	13	-
Alpena	356	-	1	7	3	17	19	47	96	87	89	30	7	-
Antrim	258	-	-	6	8	10	12	36	82	73	42	19	6	-
Arenac	194	1	4	3	-	7	5	19	1	61	41	15	1	-
Baraga	99	-	1	2	3	2	5	13		25	20	8	1	-
Barry	709	_	2	6	20	25	30	83		205	163	53	8	-
Bay	1,413	2	8	18	31	50	56	163	345	450			11	-
Benzie	152	-	1	2	4	6	6	19	46	46	32	7	2	•
Berrien	2,228	14	33	56	79	100	134	402	648		1	1	26	-
Branch	507	1	1	5	12	20	24	62		1	1	1	11	-
Calhoun	1,969	1 1	22	38	72	100	116	348		1		1	17	4
Cass	554	l I	6	15	24	33	34	112	179				6	-
Charlevoix	321	-	-	3	10	15	13	41	85	96	68	26	5	-
Cheboygan	254	1	_	5	6	6	15			1		1	3	-
Chippewa	420		3	2	7	19	20		t .	· F			4	-
Clare	369		1	4	12	19	25	61			1	1		1
Clinton	809		3	14	8	20	24	69	151			1		
Crawford	161		3	3	1	11	7	29	56	37	27	9	2	-
Delta	429	3	1	5	15	12	21							1
Dickinson	308		1	1	7	10	13			1	- 1	1		
Eaton	1,159		1	19	19	46				l l	1		1	1
Emmet	366		-	2	8	10	16			1		1		1
Genesee	6,610		78	113	232	329	349	1,10	1 1,936	5 1,775	5 1,247	7 447	67	-
Gladwin	270	_	5	5	7	12								
Gogebic	167		-	1 4										
Gd .Traverse	1 1 1 1 1 1 1		3					l.		- 1	1			
Gratiot	515	L.	3	5		1				- 1	- 1)	1	1
Hillsdale	582	1	2		3 21	37	7 37	7 10	5 20	4 13	6 8	3 45	' '	-
Houghton	395	5 -	3	. 4			1 20	1			- 1	- 1		
Huron	44	- 1	1	. 2		1	3 10		- 1			- 1		
ingham	4,05				5 96						1 94	-	1	
lonia	81		1		19	36						-	- -	·
losco	26		i	. 4	4 8	3 9	9 1:	3 3	4 8	7 6	9 5	5 16	5 5	5 1
Iron	12	1 -	. 1		2 :	2 1		- 1	3 3	1	1		4	
Isabelia	61		1		6 1	7 2:			2 19				1	
Jackson	2,06			1	7 7	8 (- 1					
Kalamazoo	3,16	1			0 6	7 11	1 10			1				
Kalkaska	19	1				В	7 1	2 3	35 G	2 5	59 2	9	4	1 -

Table 4.12 *(continued)*Live Births by Age of Mother and County
Michigan Residents, 1994

_							Ag	e of Moti	ner					
Area	Total	<15	15	16	17	18	19	15-19	20-24	25-29	30-34	35-39	40 +	Not Stated
Kent	8,778	28	57	122	218	258	348	1,003	2,032	2,692	2,154	753	114	2
Keweenaw	16					200	-	1,000	2,002	5	2,104	1	1	
Lake	114	-	2	1	4	6	9	22	54	20	13	5		_
Lapeer	1.093	2	3	10	18	37	45	113	279	339	261	87	12	_
Leelanau	211	-	1	-	3	6	5	15	39	54	60	34	9	-
Lenawee	1,168	2	8	12	27	57	49	153	336	350	221	91	15	-
Livingston	1,728	-	1	7	15	24	37	84	263	606	559	191	25	-
Luce	68	-	2	1	2	6	2	13	24	17	7	6	1	-
Mackinac	137	-	-	-	4	3	8	15	46	38	25	12	1	-
Macomb	9,806	5	29	66	112	159	244	610	1,885	3,369	2,801	986	147	3
Manistee	257	-	2	2	2	10	21	37	74	72	47	22	5	-
Marquette	852	1	2	7	8	24	26	67	241	262	181	83	17	-
Mason	320	1	1	5	3	15	11	35	87	98	68	26	5	-
Mecosta	401	1	3	5	10	27	19	64	143	90	77	19	7	-
Menominee	270	1	2	3	4	8	12	29	64	97	55	22	2	-
Midland	1,110	1	4	7	8	23	32	74	238	387	282	114	14	-
Missaukee	175	0	0	2	7	9	7	25	46	54	37	11	2	-
Monroe	1,777	4	7	27	49	58	83	224	423	569	411	123	22	1
Montcalm	800	2	3	17	22	46	53	141	261	217	124	50	5	-
Montmorency	91	-	-	1	4	8	5	18	30	27	10	4	2	-
Muskegon	2,355	12	29	45	93	102	140	409	687	635	436	156	20	-
Newaygo	602	-	3	9	15	17	37	81	171	181	120	44	5	-
Oakland	16,277	12	42	115	202	277	387	1,023	2,576	4,847	5,389	2,110	320	-
Oceana	338	•	2	7	16	19	17	61	108	91	55	18	5	-
Ogemaw	250	1	1	5	6	14	16	42	79	70	39	18	1	-
Ontonagon	75	-	-	1	1	2		4	26	23	15	6	1	-
Osceola	279	1	1	2	11	8	12	34	95	72	51	19	6	1
Oscoda	109	-	2	1	1	8	3	15	31	29	20	12	2	-
Otsego	264	1 7	- 8	1	4	8	14	27	70	77	61	24	4	-
Ottawa	3,130	′	٥	34	51	73	91	257	627	1,035	934	243	26	1
Presque Isle	124	-	-	1	4	4	5	14	36	39	25	8	2	-
Roscommon	240	1	1	4	9	10	9	33	70	79	34	20	3	-
Saginaw	3,227	15	38	78	103	113	167	499	926	879	668	204	36	-
St Clair	2,081	3	7	29	45	83	87	251	563	634	464	144	20	2
St Joseph	860	3	5	19	31	41	44	140	270	235	157	41	13	1
Sanilac	520	1	-	8	10	21	25	64	167	156	93	33	6	-
Schoolcraft	105	-	-	-	4	2	8	14	29	30	23	8	1	-
Shiawassee	947	2	2	18	28	31	47	126	249	307	190	63	10	-
Tuscola	732	1	1	12	20	33	35	101	217	214	145	54	-	-
Van Buren	1,121	2	12	24	38	60	64	198	311	266	238	92	13	1
Washtenaw	4,001	5	24	41	53	97	129	344	710	1,148	1,153	530	109	2
Wayne	34,816	165	359	677	1,113	1,555	1,861	5,565	9,845	8,992	6,900	2,868	471	10
Wexford	400	-	1	4	14	15	19	53	122	106	85	31	3	-
Unknown	13	-	-	-	-	1	1	2	3	5	2	1	-	-

Table 4.13

Vital Statistics for Residents of Selected Michigan Cities¹

Michigan Residents, 1994

			Infant [Deaths	Fetal De	eaths
Area	Live Births	Deaths	Number	Rate	Number	Rate
	333	340	2		-	-
Allen Park	1,400	535	8	5.7	9	6.4
Ann Arbor	1,09	610	8	7.3	3	*
Battle Creek	632	457	3	*	5	*
Bay City	360	234	3	*	-	-
Burton City	1,605	953	11	6.9	3	*
Dearborn	658	643	4	*	2	*
Dearborn Heights		11,357	322	16.6	111	5.7
Detroit	19,421	431	1	*	2	*
East Detroit	414		4	•	1	*
East Lansing	329	167				
Farmington Hills	1,006	590	2 3	*	6	5.9 *
Ferndale	421	267	1	20.0	15	4.7
Flint	3,207	1,475	64	20.0 13.9	2	*
Garden City	433	250	6	8.8	39	9.4
Grand Rapids	4,110	1,872	36	28.4	39	5 .4
Highland Park	387	326	11	20.4	2	*
Holland	628	291	5	15.5	2	*
Inkster	517	316	8 9	10.4	10	11.5
Jackson	863	410	10	6.8	11	7.5
Kalamazoo	1,462	662	10	6.8	''	
Kentwood	631	165	-	-	8 3	12.5
Lansing	2,459	1,004	28	11.4	6	10.2
Lincoln Park	580	429	1 1	*	5	*
Livonia	1,280	886	2		2	•
Madison Heights	470	285	3 7	11.8	1	*
Midland	593	297		11.3	12	14.8
Muskegon	798	457	9	11.5	12	-
Novi City	600	171	2	*	4	*
Oak Park	520	241	2		8	5.4
Pontiac	1,480	610	20	13.5		
Portage	535	263	3	424	3	*
Port Huron	495	395	6	12.1	3	*
Rochester Hills City	871	403	2 3		3	•
Roseville	684	472	3	1	7	8.2
Royal Oak	849	579	7	8.2	7	4.3
Saginaw	1,608	715	19	11.8	3	7.0 *
St. Clair Shores	719	793	7	9.7	1 1	*
Southfield	964	888	9	9.3	3	_
Southgate	346	276	1	_	5	*
Sterling Heights	1,450	792	5	•	5	
Taylor	1,112	519	3	*	4 6	* 6.8
Troy	874	423	4		11	6.0
Warren	1,811	1,482	19	10.5		6.9
Westland	1,302	785	10	7.7	9	6.9
Wyandotte	381	292	1		1 4	
Wyoming	1,061	390	8	7.5	4	

 ^{25,000} population or over according to the 1980 or 1990 Census.
 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.

Table 4.14 Number of Deaths by Underlying Cause and County Michigan Residents, 1994

						Malig	nant Neop	lasms			
Area	All Causes	T.B. (all forms)	All Other Infectious & Parasitic Diseases	Total	Digestive Organs & Pentoneum	Respiratory & Intrathoracic Organs	Breast	Genital Organs	Urinary Organs	Leukemia	Other
Michigan	82,644	44	1,689	19,410	4,551	5,617	1,684	2,153	871	719	3,815
Alcona	167	1	· 2	43	10	12	7	1	1	2	10
Alger	101	-	2	25	3	6	1	4	1	-	10
Allegan	746	1	9	175	48	44	14	13	13	3	40
Alpena	318	-	3	80	11	23	9	10	6	3	18
Antrim	217	-	2	57	9	18	9	5	4	2	10
Arenac	188	-	2	42	16	6	7	2	-	4	7
Baraga	109	-	4	20	6	4	2	2	1	-	5
Barry	423	-	6	98	23	23	10	16	3	4	19
Bay	1,035	-	12	269	57	87	25	30	15	14	41
Benzie	150	-	3	22	7	6	1	2	1	1	4
Berrien	1,549	2	29	368	97	120	25	44	17	13	52
Branch	371	1	6	80	17	25	5	8	3	3	19
Calhoun	1,348	-	18	324	86	93	29	28	14	13	61
Cass	446	-	4	113	22	32	11	18	6	1	23
Charlevoix	206	-	2	48	14	10	-	4	-	3	17
Cheboygan	260	-	5	73	20	19	5	11	4	3	11
Chippewa	285		1	60	16	14	4	7	2	3	14
Clare	350	-	6	97	25	32	7	9	5	2	17
Clinton	391	-	3	92	13	29	13	9	7	3	18
Crawford	120	-	-	35	5	14	-	6	1	-	9
Delta	377	-	3	95	26	27	8	7	7	2	18
Dickinson	292	-	5	73	19	20	3	5	4	5	17
Eaton	696	-	22	151	41	36	11	13	5	9	36
Emmet	283	- 1	. 7	52	8	19	2	7	1	2	13
Genesee	3,629	1	56	792	161	259	78	85	33	21	155
Gladwin	291	-	2	68	21	16	9	4	2	4	12
Gogebic	228	-	1	54	14	14	3	6	3	-	14
Gd. Traverse	551	-	5	143	24	32	11	30	7	7	32
Gratiot Hillsdale	394 403	-	3 6	80 88	19 16	16 24	10 7	14 13	1	3 5	17 20
					}						
Houghton	401	- 1	3	79	16	20	6	11	5	2	19
Huron	424	-	7	89	22	31	6	6	1	4	19
Ingham	1,859	-	40	423	110	117	34	50	16	17	79 20
lonia losco	433 378	-	3 5	105 77	24 21	26 24	10 7	15 6	7 8	3 -	20 11
I				50		40		_	_		40
Iron	240	-	2	53	12	18	4	5	3	1	10
Isabella	344	i :	6	83	19	25	3	9	5	3	19
Jackson Kalamazoo	1,365	1	35	333	79	97	31	41	13	15	57 50
Kalamazoo Kalkaska	1,669 135	-	28	381 28	100	116	28 1	47 4	10 2	21	59 7
r vaina sha	133	_	•	20		'	•	-		•	,

Table 4.14 (continued)
Number of Deaths by Underlying Cause and County
Michigan Residents, 1994

						Malig	nant Neop	lasms			
Area	All Causes	T.B. (all forms)	All Other Infectious & Parasitic Diseases	Total	Digestive Organs & Pentoneum	Respiratory & Intrathoracic Organs	Breast	Genital Organs	Urinary Organs	Leukemia	Other
Kent	3,884	1	68	897	185	231	87	105	53	41	195
Keweenaw	28		-	9	-	5	<u>-</u>	<u>-</u>	2		2
ake	141	_ '	1	35	6	11	1	7	2	4	4
apeer	519	_	7	125	31	35	13	14	5	6	21
_eelanau	159	_	5	38	4	19	5	4	-	2	4
eelallau	100				<u> </u>				_	_	
enawee	741	-	14	160	29	48	25 20	16 18	6 10	5 9	31 42
ivingston	791	-	15	192	38	55		3	1	1	72
.uce	79	-	1	20	5	6	-	1	2	1	13
//ackinac	132	-	1	45	11	11	5	2	_	42	333
∕lacomb	6,254	1	108	1,644	401	478	140	170	80	42	330
	20.4			82	21	24	2	14	4	2	15
/lanistee	324	-	-	127	29	36	12	12	9	3	20
/larquette	589	•	8	68	13	24	3	11	4	_	1:
/lason	282	-	1			28	2	7	7	6	1
/lecosta	295	-	4	75 04	14	1	3	4	1	5	
/lenominee	280	-	2	64	19	24	3	4	'		
/lidland	517	_	4	115	26	29	13	17	3	2	2
	127	_	1 1	27	2	7	1	5	1	2	
/lissaukee			12	294	69	92	23	27	18	10	5
/lonroe	1,143	1		122	23	44	8	10	6	6	2
∕lontcalm	506	-	8	64	19	24	3	4	1	5	1
Menominee	280	-	2	04	19	24		1	'		
/lidland	517		-4	115	26	29	13	17	3	2	2
Viissaukee	127		1	27	2	7	1	5	1	2	_
	1,143	1	12	294	69	92	23	27	18	10	5
Monroe	506	1 '	8	122	23	44	8	10	6	6	2
Montcalm	1	_	1	26	9	10	2	-	1	1	1
Montmorency	130	-	'	20							
Muskegon	1,546	1	32	338	58	98	27	42	11	11	9 2
Newaygo	417	-	6	107	22		4	14	1	1	1
Oakland	8,362	5	164	2,053	454	560	220	238	93	86	40
Oceana	208		2	45	10	14	2	2	4	2	1
	244	_		51	12	16	2	8	2	2	
Ogemaw	244		_						1 _		
Ontonagon	123	-	-	23		1	1	6	2	1	
Osceola	207	-	4	51			3	1	7	1	
Oscoda	105	-	-	21	6	II	2	i .			1
Otsego	155		1	38			4	1	1	2	1 .
Ottawa	1,257		14	294	71	69	34	35	13	11	(
	1		2	45	12	10	5	3	3	3	
Presque Isle	181		5	64		·	4		· ·	i i	
Roscommon	308		_	453			33	-	1	18	
Saginaw	1,925		29			l l	18	1			- 1
St. Clair	1,376		22	339			15	1	l .		
St. Joseph	565	-	1	134	1 29	, 39	18	' ''	"		
Sanilac	468		5	103	3 23	3 27	12	1		- 1	1
Schoolcraft	99		2	20	5 (5 7	5			1	
Shiawassee	588	1	8	140		46	13			L L	
	491	1		96			10) 12	⊵ 3	8	
Tuscola Van Buren	667		9	14	-	· 1	12			5 7	
Tall Dulell						_			20) 15	,
Washtenaw	1,622		54						-		1
Wayne	21,349						1				
Wexford	284	4 -	1	6	6 1	5 20	1 7	2 5	7 4	- -	'
Unknown		4 -	-	1	-	- -	1	- '	- '	- 1 -	1

Table 4.14 (continued)
Number of Deaths by Underlying Cause and County
Michigan Residents, 1994

				Major	Cardiova	scular Dise	eases					T
Area	Diabetes Mellitus	Nutritional De- ficiencies	Total	Diseases of the Heart	Hyper- tension with or without Renal Disease	Cerebro- vascular Disease	Athero- sclerosis	Other Diseases of Arteries Arterioles Capillaries	Pneu- monia & Influenza	C.O.P.D. and Allied Diseases	Ulcer of Stomach and Duo- denum	Chronic Liver Disease & Cirrhosis
Michigan	2,224	169	36,025	28,195	372	5,680	805	973	2,877	3,447	209	1,035
Alcona	1	_	65	47	_	16	1	1	11	8	1	3
Alger	5	- 1	47	36	_	9	2		3	5	_	3
Allegan	25	2	321	246	2	53	5	15	44	24	2	3
Alpena	5	2	129	104	3	19	1	2	15	17	2	-
Antrim	3	-	98	74	2	16	5	1	5	8	1	3
Arenac	6	_	83	66	-	14	2	1	5	12	_	2
Baraga	6		55	44	1	8	-	2	6	4	1	-
Barry	15	_	174	130	1	35	2	6	14	22	1	6
Bay	38	2	466	356	5	58	32	15	32	45	2	7
Benzie	5	-	80	61	1	15	3	-	5	8		-
Berrien	51	3	666	488	13	111	32	22	51	62	6	19
Branch	7	-	162	131		22	1	8	14	20	_	5
Calhoun	41	5	572	451	3	86	18	14	61	64	3	11
Cass	11		188	139	4	36	3	6	20	25	-	3
Charlevoix	3	-	99	78	1	14	1	5	4	7	-	3
Cheboygan	3	_	112	90	-	18	2	2	8	11	_	3
Chippewa	15	3	129	100	_	24	2	3	8	16		5
Clare	7	1 1	146	122	1	19	-	4	18	16	_	2
Clinton	6	-	170	134		28	5	3	19	29	2	5
Crawford	3	-	47	35	1	9	2	-	4	6	1	-
Delta	14	_	169	133	1	24	5	6	9	11	-	3
Dickinson	7	-	128	90	2	27	6	3	11	15		-
Eaton	7	5	311	232	2	56	11	10	31	32	3	4
Emmet	4	-	117	96	-	15	1	5	19	16	1	3
Genesee	96	7	1,617	1,303	18	238	23	35	84	168	9	43
Gladwin	7	-	141	107	-	22	5	7	11	13	-	5
Gogebic	4	-	100	81	- 1	13	-	6	15	9	2	1
Gd. Traverse	9	2	231	174	3	43	6	5	16	28	2	3
Gratiot	7	2	185	141	-	38	2	4	36	17	-	3
Hillsdale	9	8	158	119	3	28	2	6	14	20	1	5
Houghton	7	2	209	163	-	35	4	7	18	15	1	2
Huron	11	-	215	161	-	44	3	7	17	18	-	3
Ingham	52	7	770	597	9	124	15	25	64	81	4	14
lonia	10	1	175	134	2	35	1	3	16	28	3	8
losco	7	-	176	124	1	25	17	9	21	20	2	2
Iron	12	-	126	86	1	34	1	4	14	6	1	1
Isabella	8	-	148	108	-	33	5	2	16	16	3	3
Jackson	20	2	548	422	10	88	13	15	75	77	2	10
Kalamazoo	50	10	663	499	12	119	9	24	68	81	5	20
Kalkaska	7	1	50	39	1	4	5	1	7	5	1	3

Table 4.14 *(continued)*Number of Deaths by Underlying Cause and County
Michigan Residents, 1994

						cular Dise						
Area	Diabetes Mellitus	Nutritional De- ficiencies	Total	Diseases of the Heart	Hyper- tension with or without Renal Disease	Cerebro- vascular Disease	Athero- sclerosis	Other Diseases of Arteries Arterioles Capillaries	Pneu- monia & Influenza	C.O.P.D. and Allied Diseases	Ulcer of Stomach and Duo- denum	ChroniC Liver Disease & Cirrhosis
Kent	95	3	1,637	1,312	18	239	23	45	170	135	11	29
Keweenaw	2	-	13	12	-	-	-	1	1	1	-	-
Lake	3	-	71	55	-	11	-	5	1 16	6 22	2	1 4
Lapeer	11	1	232	171	3	39 9	8	5	10	8		2
Leelanau	2	1	63	46	-	3			•			_
Lenawee	22	_	359	248	11	65	26	9	30	25	1	5
Livingston	23	6	344	285	3	42	5	9	15	44	1	6
Luce	3	2	28	24	-	3	1	-	5	4	-	2
Mackinac	4	-	56	43	-	11	-	2	202	283	8	86
Macomb	148	13	2,827	2,195	24	448	89	71	203	203	°	30
Manistee	10	1	168	123	2	29	10	4	5	12	-	6
Marquette	20	2	245		3	56	2	9	24	19	-	8
Mason	10	1	122	1	1	18	2	8	13	18	1	2
Mecosta	8	-	114		1	17	1	1	14	11	-	4
Menominee	9	-	131	90	2	23	14	2	13	13	-	1
Midland	16	_	217	166	3	29	10	9	25	23	1	10
Missaukee	6		56		-	16	-	2	6	6	-	•
Monroe	30	ì	495	1	7	63	12	8	24	72	3	16
Montcalm	17	5	203	157	2	30	2	12	21	24	:	2
Montmorency	1	-	53	44	-	7	2	-	7	11	3	-
Muskegon	54	3	698	521	6	111	49	11	49	76	6	19
Newaygo	10		196	1	-	23	5	5	17	12	1	1
Oakland	216		3,758	2,928	30	642	59	99	249	1	17	98
Oceana	5		94	81		10	-	2	8	1	-	3
Ogemaw	5	1	136	98	-	20	14	4	7	6	1	3
Ontonagon	8	. -	60	41	-	9	7	3	4	1	1	-
Osceola	1 2		94	1 74	1	15	2	2	3		1	2
Oscoda	5	3	46			10		2	4	-	1	1 3
Otsego	1	1	7			9	3	3	60	5 49	7	8
Ottawa	30	10	505	366	6 9	94	18	18	62	45	'	
Presque Isle	3		8	5 70	- (1		1	8		-	2
Roscommon			158					7	9	1	1	3
Saginaw	40) 2	85			131			53			
St. Clair	41		58			1			47 24			4
St. Joseph	27	7 1	24	8 197	7 2	39	2	8	24	33	'	7
Sanilac	19	9 1	22	5 170		1			ξ.			
Schoolcraft		2 -	3	0 2	2 -	1 -		2	3			2
Shiawassee	15	5 1	26			45	1		25			
Tuscola	16		23			49			19	I		
Van Buren	2	5 -	30	7 24	9 2	2 37	15	4	1	, 32	` "	'
Washtenaw	49	9 2	63			141			58	- 1		
Wayne	59		9,13	5 7,44				_	688			4
Wexford		6 -	12	1		- 27	i i	l l	10	16	1	4
Unknown		- -		1	1	-	- -	<u> </u>			<u> </u>	

Table 4.14 (continued)
Number of Deaths by Underlying Cause and County
Michigan Residents, 1994

Syndrome Childbirth Anomalies in the III-defined Disease Total Motor All Suicide Inter- E		Nephritis,	Complica-		Certain	Summtomo	All		Accidents				A.11
Alcona	Area	Nephrotic Syndrome &	Puer-	Congenital Anomalies	Originating in the Perinatal Period	Signs, & Ill-defined Conditions	All Other Disease	Total	Motor Vehicle	All Other	Suicide	Homicide and Legal Inter- vention	All Other Externa Causes
Alger 3 - 1 - 2 - 4 2 1 1 1 1 1 1 1 1 1 Alger 3 - 1 1 5 2 7 0 44 19 25 12 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Michigan	908	8	419	608	366	8,091	2,928	1,445	1,483	1,022	1,023	142
Alger 3	Alcona	1	_	1	-	_	21	7	3	4	2	_	_
Allegan 3 - 1 5 - 1 5 2 70 44 19 25 12 1 Alpena 3 - 1 1 - 1 43 15 6 9 2 - 1 Alpena 3 - 1 1 - 1 1 43 15 6 9 9 2 - 1 Antrim 4 - 1 1 1 - 21 111 3 8 2 2 - 1 Arenac 3 - 3 1 1 - 12 115 9 6 1 1 1 Baraga 1 1 - 1 - 6 5 1 1 4 - 1 1 Baraga 1 1 - 6 6 5 1 1 4 - 1 1 Baraga 8 - 3 1 6 91 29 13 16 21 2 Berzie - 1 1 - 14 9 6 3 3 3 - 1 6 91 29 13 16 21 2 Berzie 1 1 - 14 9 6 3 3 3 - 1 6 91 29 13 16 21 2 Berzie 1 1 - 14 9 6 3 3 3 - 1 6 1 1 1 20 Berzie 1 1 - 4 42 18 9 9 9 9 2 2 Calhoun 17 - 7 6 5 5 129 58 19 39 16 11 Cass 4 - 2 4 2 38 23 16 7 7 2 2 Charlevoix 2 1 1 - 23 10 7 3 2 2 2 Cheboygan 1 - 2 3 3 1 26 8 2 6 4 - 2 Charlevoix 2 1 1 - 23 10 7 3 2 2 2 Cheboygan 1 - 2 3 3 2 1 32 11 9 6 3 2 2 - Clare 2 - 3 2 1 32 11 9 6 3 2 2 - Clare 2 - 3 3 2 1 32 11 9 9 2 5 5 1 Crawford 3 - 1 1 - 12 4 - 4 4 4 - 4 4 - 1 1 - 3 4 4 6 4 2 7 3 3 Crawford 3 1 1 - 12 2 4 - 4 4 4 - 4 4 - 1 1 - 3 3 41 6 6 4 2 2 7 3 3 Crawford 3 1 1 2 2 3 5 17 6 11 5 2 Dickinson 5 - 1 1 - 1 2 2 3 10 7 6 5 5 - 1 1 2 2 4 - 4 4 4 - 4 4 - 1 1 - 3 4 4 6 6 4 6 6 6 6 6 6 6 6 6 6 6 6 6 6	Alger	3	-	1	-	-	4	2	1 1	1		-	
Alpena 3 - 1	Allegan		-	1	5	2	70					1 1	_
Antrim			-	1]			(
Baraga - - 1 - - 6 5 1 4 - 1 Barry 5 - 3 2 4 39 25 17 8 9 - Bery 8 - 3 1 6 91 29 13 16 221 2 Bernien 13 1 6 5 4 155 76 34 42 11 20 Bernien 13 1 6 5 4 155 76 34 42 11 20 Bernien 13 1 6 5 4 155 76 34 42 11 20 Calhoun 17 - 7 6 5 129 58 19 39 16 11 Cass 4 - 2 4 2 38 23 16 7 7 2<			-	1	1	-		l	i			-	-
Barry 5 - 3 2 4 39 25 17 8 9 - Bay Bay 8 - 3 1 6 91 29 13 16 21 2 Berrien 13 1 6 5 4 155 76 34 42 11 20 Branch - - 1 - 4 42 18 9 9 9 2 Calhoun 17 - 7 6 5 129 58 19 39 16 11 Cass 4 - 2 4 2 38 23 16 7 7 2 Charlevoix 2 - - 1 - 23 1 26 8 2 6 4 - Charlevoix - - 3 2 - 31 9 6 3	Arenac	3	-	3	1	-	12	15	9	6	1	1	_
Barry 5 - 3 2 4 39 25 17 8 9 - Bersele - 3 1 6 91 29 13 16 21 2 Bersele - - 1 - - 14 9 6 3 3 - - 1 - - 14 9 9 9 9 2 2 - 1 - - 1 - - 1 - - 4 42 18 9 9 9 2 Calhoun 17 - 7 6 5 129 58 19 39 16 11 1 2 2 38 23 16 7 7 2 2 2 1 11 2 38 23 16 7 7 2 2 1 11 1 1 1 1 1 1 <	Baraga	-	-	1	- :	-	6	5				1 1	-
Bay 8 - 3 1 6 91 29 13 16 21 2 Bernien 13 1 6 5 4 155 76 34 42 11 20 Barnch - - 1 - 4 42 18 9 9 9 9 9 2 Calhoun 17 - 7 6 5 129 58 19 39 16 11 Cass 4 - 2 4 2 38 23 16 7 7 2 Charevoix 2 - - 1 - 23 10 7 3 2 2 Cheboygan 1 - 2 3 1 26 8 2 6 4 - Clare 2 - 3 2 1 3 1 6 4		5	_		2	4	-		1				-
Benzie - - 1 - - 14 9 6 3 3 - Berrien 13 1 6 5 4 155 76 34 42 11 20 Branch - - 1 - 4 42 18 9 9 9 2 Calhoun 17 - 7 6 5 129 58 19 39 16 11 Cass 4 - 2 4 2 38 23 16 7 7 2 Charlevoix 2 - - 1 - 23 1 26 8 2 6 4 - Chappeyan 1 - 2 3 1 26 8 2 6 4 - Chippewa - - 3 2 1 32 11 19 2			_			1				-		i i	1
Branch - - 1 - 4 42 18 9 9 9 2 Calhoun 17 - 7 6 5 129 58 19 39 16 11 Cass 4 - 2 4 2 38 23 16 7 7 2 Charlevoix 2 - - 1 - 23 10 7 3 2 2 Cheboygan 1 - 2 3 1 26 8 2 6 4 - - Chipewa - - 3 2 - 31 9 6 3 2 - Clare 2 - 3 2 1 - 2 1 - 1 - - 2 - - 2 - - 3 4 2 35 17 6 11 5 <td></td> <td></td> <td>-</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>-</td> <td>-</td>			-									-	-
Branch - - 1 - 4 42 18 9 9 9 2 Calhoun 17 - 7 6 5 129 58 19 39 16 11 Cass 4 - 2 4 2 38 23 16 7 7 2 Charlevoix 2 - - 1 - 2 33 1 26 8 2 6 4 - Chipewa - - 3 2 - 31 9 6 3 2 - Clare 2 - 3 2 1 32 11 9 6 3 2 - Clare 2 - 3 4 2 35 17 6 11 5 2 Dickinson 5 - 1 - 1 28 12 <t< td=""><td>Berrien</td><td>13</td><td>1</td><td>6</td><td>5</td><td>4</td><td>155</td><td>76</td><td>34</td><td>42</td><td>11</td><td>20</td><td>1</td></t<>	Berrien	13	1	6	5	4	155	76	34	42	11	20	1
Calhoun	Branch		_	1	-	4			9			1 1	
Cass (Charlevoix) 4 - 2 4 2 38 23 16 7 7 2 Charlevoix 2 - - 1 - 23 10 7 3 2 2 Cheboygan 1 - 2 3 1 26 8 2 6 4 - Chippewa - - 3 2 - 31 9 6 3 2 - Clare 2 - 3 2 1 32 11 9 2 5 1 Clare 2 - 3 2 1 32 11 9 2 5 1 Crawford 3 - - 1 - 12 4 - 4 4 - Dickinson 5 - 1 - 1 28 12 3 9 6 -	Calhoun	17	_	7	6	5							
Cheboygan 1 - 2 3 10 7 3 2 2 C Cheboygan 1 - 2 3 1 26 8 2 6 4 - Chippewa - 3 2 - 31 9 6 3 2 - Clare 2 - 3 2 1 32 11 9 2 5 1 Clinton 4 - 1 - 3 41 6 4 2 7 3 Clare 1 - 4 4 - 1 - 1 - 3 41 6 4 2 7 3 Clare 1 - 4 4 4 - 1 - 1 - 1 2 8 12 3 9 6 - 2 Clare 1 - 2 3 5 3 2 3 3 4 9 14 7 8 3 6 4 4 6 6 4 6 6 4 6 6 6 6 6 6 6 6 6 6		:	_										-
Chippewa		ľ	-										-
Chippewa	Chebovgan	1	_	2	3	1	26	8	2	6	4	_	
Clare 2 - 3 2 1 32 11 9 2 5 1 Clinton 4 - 1 - 3 41 6 4 2 7 3 Crawford 3 - - 1 - 12 4 - 4 4 - Delta 5 - 3 4 2 35 17 6 11 5 2 Dickinson 5 - 1 - 1 28 12 3 9 6 - Eaton 14 - 1 3 6 69 30 14 16 4 3 Emmet 6 - 1 - - 36 15 9 6 5 - Genesee 46 - 23 53 23 349 147 83 64 46 64 <td></td> <td></td> <td>_</td> <td></td> <td></td> <td>· ·</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>1 (</td> <td>1</td>			_			· ·						1 (1
Clinton		1	_			i		- 1				i 1	
Crawford 3 - - 1 - 12 4 - 4 4 - Delta 5 - 3 4 2 35 17 6 11 5 2 Dickinson 5 - 1 - 1 28 12 3 9 6 - Eaton 14 - 1 3 6 69 30 14 16 4 3 Emmet 6 - 1 - - 36 15 9 6 5 - Genesee 46 - 23 53 23 349 147 83 64 46 64 Gladwin 2 - - - 1 29 7 2 5 4 1 Gogebic 4 - 1 1 2 21 9 3 6 4 - </td <td></td> <td>l</td> <td>_</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>_</td>		l	_										_
Dickinson 5 - 1 - 1 28 12 3 9 6 - Eaton 14 - 1 3 6 69 30 14 16 4 3 Emmet 6 - 1 - - 36 15 9 6 5 - Genessee 46 - 23 53 23 349 147 83 64 46 64 Gladwin 2 - - - 1 29 7 2 5 4 1 Gogebic 4 - 1 1 2 21 9 3 6 4 - Gratiot 6 - - 2 2 3 15 9 6 3 0 Hillsdale 9 - 4 3 2 50 22 8 14 2 -		l		i					i 1			-	•
Dickinson 5 - 1 - 1 28 12 3 9 6 - Eaton 14 - 1 3 6 69 30 14 16 4 3 Emmet 6 - 1 - - 36 15 9 6 5 - Genessee 46 - 23 53 23 349 147 83 64 46 64 Gladwin 2 - - - 1 29 7 2 5 4 1 Gogebic 4 - 1 1 2 21 9 3 6 4 - Gratiot 6 - - 2 2 3 15 9 6 3 0 Hillsdale 9 - 4 3 2 50 22 8 14 2 -	Delta	5	_	3	4	2	35	17	6	11	5	2	-
Eaton 14 - 1 3 6 69 30 14 16 4 3 Emmet 6 - 1 - - 36 15 9 6 5 - Genesee 46 - 23 53 23 349 147 83 64 46 64 Gladwin 2 - - - 1 1 29 7 2 5 4 1 Gogebic 4 - 1 1 2 21 9 3 6 4 - Gratiot 6 - 1 1 2 69 24 10 14 9 1 Gratiot 6 - - 2 2 33 15 9 6 3 0 Hillsdale 9 - 4 3 2 50 22 8 14 2 - Houghton 6 - 2 - - 43 12			-							1		1	_
Emmet 6 - 1 36 15 9 6 5 - Genesee 46 - 23 53 23 349 147 83 64 46 64 64 664 664 664 664 664 664 66	Eaton		-	1	3					-		3	-
Genesee 46 - 23 53 23 349 147 83 64 46 64 Gladwin 2 1 1 29 7 2 5 4 1 Gogebic 4 - 1 1 1 2 21 9 3 6 4 Gd. Traverse 5 - 1 1 2 69 24 10 14 9 1 Gratiot 6 - 2 2 2 33 15 9 6 3 0 Hillsdale 9 - 4 3 2 50 22 8 14 2 2 Houghton 6 - 2 43 12 8 4 2 - Houghton 7 - 1 1 1 - 34 12 5 7 8 1 Ingham 30 - 10 16 13 210 82 34 48 29 10 Ionia 2 - 3 1 4 42 21 9 12 9 2 Isabella 3 - 2 6 - 28 12 9 3 6 3 Jackson 25 - 12 10 3 146 42 24 18 12 7			-			į.						1 [1
Gogebic 4 - 1 1 2 21 9 3 6 4 - Gd. Traverse 5 - 1 1 1 2 69 24 10 14 9 1 Gratiot 6 - 2 2 2 33 15 9 6 3 0 Hillsdale 9 - 4 3 2 50 22 8 14 2 2 1 9 10 Houghton 6 - 2 - 4 3 12 8 4 2 - Huron 7 - 1 1 1 - 34 12 5 7 8 1 Ingham 30 - 10 16 13 210 82 34 48 29 10 Ionia 2 - 3 1 4 42 21 9 12 9 2 Iosco 4 - 1 3 2 42 11 6 5 4 1 Ingham 1 3 - 2 6 - 28 12 9 3 6 3 Jackson 25 - 12 10 3 146 42 24 18 12 7		1	-		53	23						64	5
Gogebic 4 - 1 1 2 21 9 3 6 4 - Gd. Traverse 5 - 1 1 2 69 24 10 14 9 1 Gratiot 6 - - 2 2 33 15 9 6 3 0 Hillsdale 9 - 4 3 2 50 22 8 14 2 2 Houghton 6 - 2 - - 43 12 8 4 2 - Huron 7 - 1 1 - 34 12 5 7 8 1 Ingham 30 - 10 16 13 210 82 34 48 29 10 Ionia 2 - 3 1 4 42 21 9 12 9 2	Gladwin	2	_	-	-	1	29	7	2	5	4	1	_
Gd. Traverse 5 - 1 1 2 69 24 10 14 9 1 Gratiot 6 - 2 2 33 15 9 6 3 0 Hillsdale 9 - 4 3 2 50 22 8 14 2 2 Houghton 6 - 2 - 43 12 8 4 2 - Huron 7 - 1 1 1 - 34 12 5 7 8 1 Ingham 30 - 10 16 13 210 82 34 48 29 10 Ionia 2 - 3 1 4 42 21 9 12 9 2 Iosco 4 - 1 3 2 42 11 6 5 4 1 Ingham Ingham 1 3 2 42 11 6 5 4 1 Ingham Ingham 1 3 2 42 11 6 5 4 1 Ingham Ingham 2 5 4 5 7 8 1 Ingham Ingham 2 5 5 7 8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Gogebic	4		1	1	2		9		i			
Gratiot 6 - - 2 2 33 15 9 6 3 0 Hillsdale 9 - 4 3 2 50 22 8 14 2 2 Houghton 6 - 2 - - 43 12 8 4 2 - Huron 7 - 1 1 - 34 12 5 7 8 1 Ingham 30 - 10 16 13 210 82 34 48 29 10 Ionia 2 - 3 1 4 42 21 9 12 9 2 Isosco 4 - 1 3 2 42 11 6 5 4 1 Iron 1 - - - 2 15 4 1 3 2 -		5	-	1				-		- 1		1	_
Hillsdale 9 - 4 3 2 50 22 8 14 2 2 Houghton 6 - 2 - - 43 12 8 4 2 - Huron 7 - 1 1 - 34 12 5 7 8 1 Ingham 30 - 10 16 13 210 82 34 48 29 10 Ionia 2 - 3 1 4 42 21 9 12 9 2 Isosco 4 - 1 3 2 42 11 6 5 4 1 Iron 1 - - - 2 15 4 1 3 2 - Isabella 3 - 2 6 - 28 12 9 3 6 3 Jackson 25 - 12 10 3 146 42 24 18 12 7	Gratiot		-	_						ı		1	_
Huron 7 - 1 1 - 34 12 5 7 8 1 Ingham 30 - 10 16 13 210 82 34 48 29 10 Ionia 2 - 3 1 4 42 21 9 12 9 2 Iosco 4 - 1 3 2 42 11 6 5 4 1 Iron 1 - - - 2 15 4 1 3 2 - Isabella 3 - 2 6 - 28 12 9 3 6 3 Jackson 25 - 12 10 3 146 42 24 18 12 7			-	4									
Huron 7 - 1 1 - 34 12 5 7 8 1 Ingham 30 - 10 16 13 210 82 34 48 29 10 Ionia 2 - 3 1 4 42 21 9 12 9 2 Iosco 4 - 1 3 2 42 11 6 5 4 1 Iron 1 - - - 2 15 4 1 3 2 - Isabella 3 - 2 6 - 28 12 9 3 6 3 Jackson 25 - 12 10 3 146 42 24 18 12 7	Houghton	6	_	2	_	.	43	12	8	4	2	_	_
Ingham 30 - 10 16 13 210 82 34 48 29 10 Ionia 2 - 3 1 4 42 21 9 12 9 2 Iosco 4 - 1 3 2 42 11 6 5 4 1 Iron 1 - - - 2 15 4 1 3 2 - Isabella 3 - 2 6 - 28 12 9 3 6 3 Jackson 25 - 12 10 3 146 42 24 18 12 7					1	_						1	-
Ionia 2 - 3 1 4 42 21 9 12 9 2 Iosco 4 - 1 3 2 42 11 6 5 4 1 Iron 1 - - - 2 15 4 1 3 2 - Isabella 3 - 2 6 - 28 12 9 3 6 3 Jackson 25 - 12 10 3 146 42 24 18 12 7		30	-	10	16	13				. 1			4
Iosco 4 - 1 3 2 42 11 6 5 4 1 Iron 1 - - - 2 15 4 1 3 2 - Isabella 3 - 2 6 - 28 12 9 3 6 3 Jackson 25 - 12 10 3 146 42 24 18 12 7			-										
Isabella 3 - 2 6 - 28 12 9 3 6 3 146 42 24 18 12 7			-										-
Isabella 3 - 2 6 - 28 12 9 3 6 3 146 42 24 18 12 7	Iron	1	-	-	_	2	15	4	1	3	2	_	1
Jackson 25 - 12 10 3 146 42 24 18 12 7	Isabella		-	2	6							3	1
	Jackson		-									7	5
	Kalamazoo		_										-
Kalkaska 2 1 - 13 15 9 6 2 -			- 1	-									-

Table 4.14 (continued)
Number of Deaths by Underlying Cause and County
Michigan Residents, 1994

		Complica- tions of		Certain		A.11		Accidents			Homicide	ΔU
Area	Nephritis, Nephrotic Syndrome & Nephrosis	tions of Pregnancy Childbirth & the Puer- perium	Congenital Anomalies	Conditions Originating in the Perinatal Period	Symptoms, Signs, & III-defined Conditions	All Other Disease	Total	Motor Vehicle	All Other	Suicide	and Legal Inter- vention	All Other Externa Causes
Kent	36	_	35	27	16	478	159	80	79	52	29	6
Keweenaw	-	_		-	_	2	-	-	-	-	-	-
Lake	2	_	_	1	2	10	5	4	1	3	-	-
Lapeer	5	-	1	-	2	44	33	18	15	13	1	-
Leelanau	4	-	-	1	1	24	9	5	4	-	-	-
Lenawee	6	-	3	2	_	71	34	21	13	8	1	-
Livingston	4	-	4	2	5	80	39	28	11	10	1	-
Luce	-	-	-	-	-	13	1	-	1	-	-	-
Mackinac	1	-	-	-	-	9	4	1	3	1	-	
Macomb	87	-	26	31	17	519	158	73	85	65	27	3
Manistee	-	-	2	-	-	21	9	4	5 11	8	-	-
Marquette	10	-	2	4	1	86	25	14	8	4	1	
Mason	3	-	<u> </u>	-	1	26	11	8	11	6		
Mecosta	-	-	2	2	2	34	19 19	13	6	3		1 -
Menominee	3	-	3	-	1	18	19	13	"			
Midland	6	-	3	8	3	51	24	15	9	10	1 1	:
Missaukee	2	-	· -	<u> </u>	_	18	4	3	1	12	5	
Monroe	16	-	5	7	5	107	39	24	15	10	1]
Montcalm	4	-	2	-	3	50	34	22	12	5		1 .
Montmorency	1	-	-	-	2	15	5	3	2	3	_	
Muskegon	13	1	12	9	7	139 26	53 24	22 16		21	15	
Newaygo	8	-	3	1 50	1	802	229	94	l l	120	64	35
Oakland	73	•	38	50	32	21	16	7			1	
Oceana	3	-	-	2	1	9	11	6	1	1	1	1 .
Ogemaw	2	-	-	2	1	9	"			i		
Ontonagon	-	-	-	-	1	11 21	6 7	4	1			
Osceola		-	1 1	_	1	10	3	2				
Oscoda	1	-	1	1	'.	22	5	3				
Otsego Ottawa	10	-	4	16	10	155	61	34		1		•
Droomin lola	3				1	19	5	1	4	1	-	
Presque Isle	4	1 :	2	-	3	16	13	5	8			
Roscommon Saginaw	22		12	18	15	172		24			24	
Saginaw St. Clair	17		8	11	6	127		26	26	i 18	7	
St. Joseph	3		4.	2	-	48		14	14	7	-	
Sanilac	6	_	3	1	3	43	22				I	1
Schoolcraft	2		1	1	-	14	7	2		1	1	
Shiawassee	11		2	1	2	50				1		.
Tuscola	2		4	2	1	45						
Van Buren	9		4	-	4	72	26	14	4 12	2 8	3 2	
Washtenaw	10		8	16	5	200				1	i	
Wayne	233		111	238	104	2,013					1	· 6
Wexford	5		-	i	2	25	1	1	5 10		3 -	.
Unknown		.	_	1	-	i -	. 1		- '	١	- -	•

Table 4.15
Reported Cases of Certain Communicable Diseases by County
Michigan Residents, 1994

Area	Total	Gonor- rhea	Chicken Pox	Hepatitis (all types)	Salmo- nella Infections	Tubercu- losis	Syphilis	Mumps	Dysentery Bacillary	Measles	Rubella	Meningo- coccal Infections	Whoop- ing Cough
Michigan	59,007	18,100	37,982	997	869	447	321	59	42	26	9	59	96
Alcona	2	-	-	-	2	-	-	-	-	_	-	-	-
Alger	-	-	-	-	-	-	-	-	-	-	-	-	-
Allegan	185	20	152	4	5	3	-	-	-	-	-	1	-
Alpena	47	-	35	7	4	-	-	-	-	1	-	-	-
Antrim	21	2	8	8	1	-	-	1	-	-	-	-	1
Arenac	3	-	-	-	1	-	-	-	-	-	_	-	2
Baraga	1	-	1	-	-	-	-	-	-	-	-	-	-
Barry	59	7	40	6	4	1	-	-	-	-	-	1	-
Bay	723	36	675	6	4	1	-	1	-	- :	-	-	-
Benzie	20	-	11	1	4	1	-	1	-	2	-	-	-
Berrien	1,523	643	817	18	11	6	21	1	4	-	-	2	-
Branch	190	4	177	5	3	-	-	-	-	-	-	-	1
Calhoun	495	314	73	84	17	2	5	-	-	-	-	-	-
Cass	297	59	219	7	8	3	-	-	-	-	-	-	1
Charlevoix	42	-	37	1	4	•	-	-	-	-	-	-	-
Cheboygan	4	-	· 2	1	1	-	-	-	-	-	-	-	-
Chippewa	103	4	93	2	4	-	-	-	-	-	-	-	-
Clare	43	1	-	1	1	-	-	-	-	-	-	-	40
Clinton	40	11	1	6	18	1	-	-	3	-	-	-	-
Crawford	23	4	17	1	1	-	-	-	-	-	-	-	-
Delta	101	1	83	5	8	-	-	2	-	-	-	1	1
Dickinson	320	-	315	2	3	-	-	-	-	-	-	-	-
Eaton	179	19	146	5	7	-	-	-	1	-	-	1	-
Emmet	12	4 000	-	5	6	1	-	-	-	-	-	-	-
Genesee	2,830	1,606	1,142	15	31	15	19	-	-	-	-	2	-
Gladwin	103	-	96	2	1	2	-	1	-	-	-	-	1
Gogebic	48		46	-	-	2	-	-	-	-	-	-	-
Gd. Traverse	208	17	172	8	10	-	-	-	-	-	-	-	1
Gratiot	258	6	249	3	-	-	-	-	-	-	-	-	-
Hillsdale	229	6	213	5	3	•	-	-	1	•	-	-	1
Houghton	298	2	293	-	3	•	-	-	-	-	-	-	-
Huron	2		-	-	-	2	-	-	-	-	-	-	-
ingham	967	611	259	20	40	12	4	-	10	5	-	-	6
lonia	122	3	117	1	1	-	-	-	-	-	-	-	-
losco	20	-	18	1	1	-	-	-	•	-	-	-	-
Iron	11	1	10	-	-	-	-	_	-	-	-	-	-
Isabelia	60	13	37	2	5	-	1	2	-	-	-	•	-
Jackson	563	237	297	4	11	4	7	2	-	1	-	-	-
Kalamazoo	1,090	491	521	52	19	2	1	-	1	-	-	3	-
Kalkaska	12	1	6	2	2	1	-	-	-	-	-	-	-

Source: Bureau of Infectious Disease Control, Disease Control Division, MDPH

Table 4.15 (continued)
Reported Cases of Certain Communicable Diseases by County
Michigan Residents, 1994

Area	Total	Gonor- rhea	Chicken Pox	Hepatitis (all types)	Salmo- nella Infections	Tubercu- losis	Syphilis	Mumps	Dysentery Bacillary	Measles	Rubella	Meningo- coccal Infections	Whoop- ing Cough
							22	2	4	_	3	7	1
Kent	2,949	1,292	1,542	23	30	22	23		-	[<u>'</u>	
Keweenaw	-	-	-	-	•	-	-	-	1	ŀ]		_
Lake	13	10	-	3		-	-		-	-		1	_
Lapeer	549	5	520	5	17	-	-	1	-	-	-	'	
Leelanau	8	1	3	2	2	-	-	-	-	•	-	-	
Lenawee	379	20	337	4	14	2	1	1	-	-	-	-	4
Livingston	506	6	473	3	9	3	-	6	-	2	-	-	1
Luce	1	-	-	-	-	1	-	-	-	-	-	-	-
Mackinac	1	1	-	-	-	-	-	-	-	-	-	-	-
Macomb	3,494	167	3,179	47	73	15	1	-	-	•	3	-	9
Manistee	13	2	7	3	1		_	-	-	-		-	-
	64	14	27		15	3	-	-	1	-	-	-	-
Marquette	174	5	168		-	-	-	-	-	-	-	-	-
Mason		39	257		1	2	2	-	-	-	1	-	-
Mecosta	303	39	49	1	3		-	-	-	-	-	1	-
Menominee	56	3	49		3								
Midland	339	7	321	4		-	-	-	-	-	-	1	-
Missaukee	9	1	2		4	_	-	1	1	1 -		1 _	1
Monroe	614	67	517		12	3	-	1		1			:
Montcalm	80	7	65		2	3	-	•		-	1	_	
Montmorency	10	1	6	5 1	1	1	-	-	-	-	-	-	-
Muskegon	881	447	388	20	13	4	8	-	-	-	-	1	-
Newaygo	179	6	163	3 6	1	-	-	-	i	1 -	-	1	2
Oakland	7,130	1,396	5,449	75	101	49	10	19	6	2	-	9	14
Oceana	28	2				1	-	-	· -	-	-	-	i -
	17	-			l .	-	-	-	. -	-	-	-	-
Ogemaw	''												_
Ontonagon	14	1			· -	-	-	- 1	1		i i	l .	1
Osceola	88	-	87	7 .	. -	-	-	1 .	i	1			
Oscoda	-	-	.	- .	. -	-	-	1 .	• •	-	•	1	1
Otsego	25		2:			-	-	· ·	- -	-	1	1	
Ottawa	693		59:	3 15	14	4	-		- 1	-	2	! 1	-
Presque Isle	28		. 2	7 1		. -	. .	.	- -	.	. .	- -	-
Roscommon	22					2	: •		- -	.	٠ ٠	1	ļ
	1,503			- 1	1			.	- 1	.	- -	- 2	! -
Saginaw	1,000	31						1	- -	.	- .	- -	. -
St. Clair	135				3 1	1		-	- -	.	-	- -	. -
St. Joseph	135	'	• 10	` `		-						}	
Sanilac	55		2 5	0	- 3	3 1	L.	-		1	-		: :
Schoolcraft	1			-			1		1 .			- 1	1
Shiawassee	283	. 1	3 27	3		3	ì		<u>'</u>]	1	- I		<u>.</u> .
Tuscola	365	- 1	34		5 5		l l	-	١.	1	2	·	
Van Buren	352	2 54	4 27	1	8 5	5 3	3 4	4	- 4				
Washtenaw	346		- 1	15 4		- 1		2	_ 1		-		3 4
Wayne	24,998						18	В 1	-	2 10	0		-
Wexford	4				2 1	7	-	-	-	-	-	-	-

Source: Bureau of Infectious Disease Control, Disease Control Division, MDPH

Table 4.16 Number of Deaths by Cause Michigan Residents, 1994

ICD List Number	Cause of Death	Number
	I. INFECTIOUS AND PARASITIC DISEASES (001-139)	
3	Other salmonella infections	1
7	Other protozoal intestinal dseases	1
8	Intestinal infections due to other organisms	19
9	III-defined intestinal infections	13
11	Pulmonary tuberculosis	32
12	Other respiratory tuberculosis	1
13	Tuberculosis of meninges and central nervous system	2
14	Tuberculosis of intestines, peritoneum and mesenteric glands	1
17	Tuberculosis of other organs	1
18	Miliary tuberculosis	7
27	Other zoonotic bacterial diseases	1
31	Diseases due to other mycobacteria	3
36	Meningococcal infection	3
38	Septicemia	634
39	Actinomycotic infections	2
40	Other bacterial diseases	9
41	Bacterial infection in conditions classified elsewhere and of unspecified site	4
42	Human immunodeficiency virus infection [AIDS] with specified conditions	715
43	Human immunodeficiency virus infection [AIDS] causing other specified conditions	14
44	Other human immunodeficiency virus infection [AIDS]	28
46	Slow virus infection of central nervous system	5
48	Other enterovirous diseases of central nervous system	2
49	Other non-arthropod-borne viral diseases of central nervous system	8
52	Chickenpox	10
53	Herpes zoster	4
54	Herpes simplex	5
70	Viral hepatitis	77
78	Other diseases due to viruses and Chlamydiae	16
79	Viral infection in conditions classified elsewhere and of unspecified site	9
79 85	Leishmaniasis	1
94		1
9 4 112	Neurosyphilis	15
115		3
115	Histoplasmosis	32
117	Other mycoses	
135	Sarcoidosis	19
	,	15
137	Late effects of tuberculosis	-
138	Late effects of acute poliomyelitis	12
139	Late effects of other infectious and parasitic diseases	3
	II. NEOPLASMS (140-239)	
140	Malignant neoplasm of lip	2
141	Malignant neoplasm of tongue	72
142	Malignant neoplasm of major salivary glands	16
143	Malignant neoplasm of gum	2
144	Malignant neoplasm of floor of mouth	10
145	Malignant neoplasm of other and unspecified parts of mouth	52
	manginant neeplacin of other and anoposition parts of mount	J 22

ICD List	Michigan Residents, 1994	
Number	Cause of Death	Number
146	Malignant neoplasm of oropharynx	42
146	Malignant neoplasm of nasopharynx	17
147	Malignant neoplasm of hypopharynx	13
148	Malignant neoplasm of other and ill-defined sites within the lip, oral cavity and pharynx	49
149	Malignant neoplasm of esophagus	426
150	Malignant neoplasm of stomach	466
151	Malignant neoplasm of small intestine, including duodenum	43
152	Malignant neoplasm of colon	1,755
153	Malignant neoplasm of rectum, rectosigmoid junction and anus	293
154	Malignant neoplasm of liver and intrahepatic bile ducts	376
155	Malignant neoplasm of gallbladder and extrahepatic bile ducts	131
156	Malignant neoplasm of pancreas	970
157	Malignant neoplasm of retroperitoneum and peritoneum	30
158	Malignant neoplasm of retropentorieum and periodieum	
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	20
160	Malignant neoplasm of larynx	168
161	Malignant neoplasm of trachea, bronchus and lung	5,401
162 163	Malignant neoplasm of pleura	12
	Malignant neoplasm of thymus, heart and mediastinum	16
164	Malignant neoplasm of bone and articular cartilage	47
170	Malignant neoplasm of connective and other soft tissue	120
171	Malignant melanoma of skin	187
172	Other malignant neoplasm of skin	43
173	Malignant neoplasm of female breast	1,666
174 175	Malignant neoplasm of male breast	
	Malignant neoplasm of uterus, part unspecified	114
179	Malignant neoplasm of cervix uteri	18
180	Malignant neoplasm of placenta	
181 182	Malignant neoplasm of body of uterus	13
183	Malignant neoplasm of ovary and other uterine adnexa	46
184	Malignant neoplasm of other and unspecified female genital organs	3
185	Malignant neoplasm of prostate	1,20
	Malignant neoplasm of testis	1
186	Malignant neoplasm of penis and other male genital organs	1
187	Malignant neoplasm of bladder	44
188 189	Malignant neoplasm of kidney and other and unspecified urinary organs	43
	Malignant neoplasm of eye	
190 191	Malignant neoplasm of brain	48
	Malignant neoplasm of other and unspecified parts of nervous system	
192	Malignant neoplasm of thyroid gland	3
193	Malignant neoplasm of other endocrine glands and related structures	1
194	Malignant neoplasm of other and ill-defined sites	1
195	Malignant neoplasm without specification of site	1,14
199	Lymphosarcoma and reticulosarcoma	4
200	Hodgkin's disease	
201	Other malignant neoplasm of lymphoid and histiocytic tissue	1
202	Multiple myeloma and immunoproliferative neoplasms	39
203	Lymphoid leukemia	
204	Myeloid leukemia	
205	Myeloid leukernia	

	ivicingan residents, 1994	,
ICD List	Cause of Death	Number
Number	Cause of Death	Number
000	Manage Attacked to the contract of the contrac	
206	Monocytic leukemia	9
207	Other specified leukemia	3
208	Leukemia of unspecified cell type	192
211	Benign neoplasm of other parts of digestive system	8
212	Benign neoplasm of respiratory and intrathoracic organs	6
214	Lipoma	1
215	Other benign neoplasm of connective and other soft tissue	2
216	Benign neoplasm of skin	2
220	Benign neoplasm of ovary	1
225	Benign neoplasm of brain and other parts of nervous system	27
227	Benign neoplasm of other endocrine glands and related structures	6
228	Hemangioma and lymphangioma, any site	2 2
229	Benign neoplasm of other and unspecified sites	2
235	Neoplasm of uncertain behavior of digestive and respiratory systems	6
237	Neoplasm of uncertain behavior of endocrine glands and nervous system	4
238	Neoplasm of uncertain behavior of other and unspecified sites and tissues	55
239	Neoplasm of unspecified nature	108
200		
	III. ENDOCRINE, NUTRITIONAL AND METABOLIC DISEASES	
	AND IMMUNITY DISORDERS (240-279)	
240	Simple and unspecified goiter	1
242	Thyrotoxicosis with or without goiter	3
244	Acquired hypothyroidism	33
250	Diabetes mellitus	2,224
251	Other disorders of pancreatic internal secretion	5
252	Disorders of parathyroid gland	4
252 253	Disorders of the pituitary gland and its hypothalamic control	11
255 255	Disorders of adrenal glands	7
255 259	Other endocrine disorders	4
260		2
	Kwashiorkor	10
261	Nutritional marasmus	153
263	Other and unspecified protein-calorie malnutrition	1
265	Thiamine and niacin deficiency states	1
269	Other nutritional deficiencies	3
270	Disorders of amino-acid transport and metabolism	2
272	Disorders of lipoid metabolism	106
273	Disorders of plasma protein metabolism	19
274	Gout	ľ
275	Disorders of mineral metabolism	15
276	Disorders of fluid, electrolyte and acid-base balance	242
277	Other and unspecified disorders of metabolism	66
278	Obesity and other hyperalimentation	66
279	Disorders involving the immune mechanism	31
	IV. DISEASES OF BLOOD AND BLOOD-FORMING ORGANS (280-289)	
280	Iron deficiency anemias	4
281	Other deficiency anemias	6
282	Hereditary hemolytic anemias	32
L <u>.</u>		<u> </u>

ICD List	Coupe of Dooth	Numbe
Number	Cause of Death	1,311.00
283	Acquired hemolytic anemias	48
284	Aplastic anemias	8
285	Other and unspecified anemia	4:
286	Coagulation defects	3
287	Purpura and other hemorrhagic conditions	
288	Diseases of white blood cells	1:
289	Other diseases of blood and blood-forming organs	10
	V. MENTAL DISORDERS (290-319)	
290	Senile and presenile organic psychotic conditions	48
291	Alcoholic psychoses	1
293	Transient organic psychotic conditions	
294	Other organic psychotic conditions (chronic)	
295	Schizophrenic disorders	
295 296	Affective psychoses	
298	Other nonorganic psychoses	28
300	Neurotic disorders	
303	Alcohol dependence syndrome	15
303	Drug dependence	
305	Nondependent abuse of drugs	17
	Special symptoms or syndromes, not elsewhere classified	
307	Acute reaction to stress	
308	Specific nonpsychotic mental disorders following organic brain damage	7
310	Depressive disorder, not elsewhere classified	1
311	Unspecified mental retardation	
319	Onspecifica mental retardation :	
	VI. DISEASES OF THE NERVOUS SYSTEM AND SENSE ORGANS (320-389)	
320	Bacterial meningitis	
322		1
	Meningitis of unspecified cause	1
	Meningitis of unspecified cause	'
323	Meningitis of unspecified cause	
323 324	Meningitis of unspecified cause	
323 324 325	Meningitis of unspecified cause	
323 324 325 326	Meningitis of unspecified cause	
323 324 325 326 330	Meningitis of unspecified cause	
323 324 325 326 330 331	Meningitis of unspecified cause	5
323 324 325 326 330 331 332	Meningitis of unspecified cause Encephalitis, myelitis and encephalomyelitis Intracranial and intraspinal abscess Phlebitis and thrombophlebitis of intracranial venous sinuses Late effects of intracranial abscess or pyogenic infection Cerebral degenerations usually manifest in childhood Other cerebral degenerations Parkinson's disease	57
323 324 325 326 330 331 332 333	Meningitis of unspecified cause Encephalitis, myelitis and encephalomyelitis Intracranial and intraspinal abscess Phlebitis and thrombophlebitis of intracranial venous sinuses Late effects of intracranial abscess or pyogenic infection Cerebral degenerations usually manifest in childhood Other cerebral degenerations Parkinson's disease Other extrapyramidal disease and abnormal movement disorders	57
323 324 325 326 330 331 332 333 334	Meningitis of unspecified cause Encephalitis, myelitis and encephalomyelitis Intracranial and intraspinal abscess Phlebitis and thrombophlebitis of intracranial venous sinuses Late effects of intracranial abscess or pyogenic infection Cerebral degenerations usually manifest in childhood Other cerebral degenerations Parkinson's disease Other extrapyramidal disease and abnormal movement disorders Spinocerebellar disease	57
323 324 325 326 330 331 332 333 334 335	Meningitis of unspecified cause Encephalitis, myelitis and encephalomyelitis Intracranial and intraspinal abscess Phlebitis and thrombophlebitis of intracranial venous sinuses Late effects of intracranial abscess or pyogenic infection Cerebral degenerations usually manifest in childhood Other cerebral degenerations Parkinson's disease Other extrapyramidal disease and abnormal movement disorders Spinocerebellar disease Anterior horn cell disease	57 32
323 324 325 326 330 331 332 333 334 335 336	Meningitis of unspecified cause Encephalitis, myelitis and encephalomyelitis Intracranial and intraspinal abscess Phlebitis and thrombophlebitis of intracranial venous sinuses Late effects of intracranial abscess or pyogenic infection Cerebral degenerations usually manifest in childhood Other cerebral degenerations Parkinson's disease Other extrapyramidal disease and abnormal movement disorders Spinocerebellar disease Anterior horn cell disease Other diseases of spinal cord	55
323 324 325 326 330 331 332 333 334 335 336 340	Meningitis of unspecified cause Encephalitis, myelitis and encephalomyelitis Intracranial and intraspinal abscess Phlebitis and thrombophlebitis of intracranial venous sinuses Late effects of intracranial abscess or pyogenic infection Cerebral degenerations usually manifest in childhood Other cerebral degenerations Parkinson's disease Other extrapyramidal disease and abnormal movement disorders Spinocerebellar disease Anterior horn cell disease Other diseases of spinal cord Multiple sclerosis	57
323 324 325 326 330 331 332 333 334 335 336 340 341	Meningitis of unspecified cause Encephalitis, myelitis and encephalomyelitis Intracranial and intraspinal abscess Phlebitis and thrombophlebitis of intracranial venous sinuses Late effects of intracranial abscess or pyogenic infection Cerebral degenerations usually manifest in childhood Other cerebral degenerations Parkinson's disease Other extrapyramidal disease and abnormal movement disorders Spinocerebellar disease Anterior horn cell disease Other diseases of spinal cord Multiple sclerosis Other demyelinating diseases of central nervous system	57 32
323 324 325 326 330 331 332 333 334 335 336 340 341 342	Meningitis of unspecified cause Encephalitis, myelitis and encephalomyelitis Intracranial and intraspinal abscess Phlebitis and thrombophlebitis of intracranial venous sinuses Late effects of intracranial abscess or pyogenic infection Cerebral degenerations usually manifest in childhood Other cerebral degenerations Parkinson's disease Other extrapyramidal disease and abnormal movement disorders Spinocerebellar disease Anterior horn cell disease Other diseases of spinal cord Multiple sclerosis Other demyelinating diseases of central nervous system Hemiplegia	57 33
323 324 325 326 330 331 332 333 334 335 336 340 341 342 343	Meningitis of unspecified cause Encephalitis, myelitis and encephalomyelitis Intracranial and intraspinal abscess Phlebitis and thrombophlebitis of intracranial venous sinuses Late effects of intracranial abscess or pyogenic infection Cerebral degenerations usually manifest in childhood Other cerebral degenerations Parkinson's disease Other extrapyramidal disease and abnormal movement disorders Spinocerebellar disease Anterior horn cell disease Other diseases of spinal cord Multiple sclerosis Other demyelinating diseases of central nervous system Hemiplegia Infantile cerebral palsy	57 33
323 324 325 326 330 331 332 333 334 335 340 341 342 343 344	Meningitis of unspecified cause Encephalitis, myelitis and encephalomyelitis Intracranial and intraspinal abscess Phlebitis and thrombophlebitis of intracranial venous sinuses Late effects of intracranial abscess or pyogenic infection Cerebral degenerations usually manifest in childhood Other cerebral degenerations Parkinson's disease Other extrapyramidal disease and abnormal movement disorders Spinocerebellar disease Anterior horn cell disease Other diseases of spinal cord Multiple sclerosis Other demyelinating diseases of central nervous system Hemiplegia Infantile cerebral palsy Other paralytic syndromes	5733
323 324 325 326 330 331 332 333 334 335 336 340 341 342 343 344 345	Meningitis of unspecified cause Encephalitis, myelitis and encephalomyelitis Intracranial and intraspinal abscess Phlebitis and thrombophlebitis of intracranial venous sinuses Late effects of intracranial abscess or pyogenic infection Cerebral degenerations usually manifest in childhood Other cerebral degenerations Parkinson's disease Other extrapyramidal disease and abnormal movement disorders Spinocerebellar disease Anterior horn cell disease Other diseases of spinal cord Multiple sclerosis Other demyelinating diseases of central nervous system Hemiplegia Infantile cerebral palsy Other paralytic syndromes Epilepsy	57 32 3
323 324 325 326 330 331 332 333 334 335 336 340 341 342 343 344	Meningitis of unspecified cause Encephalitis, myelitis and encephalomyelitis Intracranial and intraspinal abscess Phlebitis and thrombophlebitis of intracranial venous sinuses Late effects of intracranial abscess or pyogenic infection Cerebral degenerations usually manifest in childhood Other cerebral degenerations Parkinson's disease Other extrapyramidal disease and abnormal movement disorders Spinocerebellar disease Anterior horn cell disease Other diseases of spinal cord Multiple sclerosis Other demyelinating diseases of central nervous system Hemiplegia Infantile cerebral palsy Other paralytic syndromes	57 32 16

Office of the State Registrar and Division of Health Statistics, MDPH

Source:

ICD List		
Number	Cause of Death	Number
Tanibol	Oddoc of Death	TAUTIDE
352	Disorders of other cranial nerves	2
355	Monoeuritis of lower limb	2
356	Hereditary and idiopathic peripheral neuropathy	21
357	Inflammatory and toxic neuropathy	8
358	Myoneural disorders	23
359	Muscular dystrophies and other myopathies	49
365	Glaucoma	1
376	Disorders of the orbit	1
382	Suppurative and unspecified otitis media	2
002	oupparative and anoposition state module	_
	VII. DISEASES OF THE CIRCULATORY SYSTEM (390-459)	
391	Rheumatic fever with heart involvement	5
394	Diseases of mitral valve	85
395	Diseases of aortic valve	3
396	Diseases of mitral and aortic valves	22
397	Diseases of other endocardial structures	15
398	Other rheumatic heart disease	35
401	Essential hypertension	162
402	Hypertensive heart disease	846
403	Hypertensive renal disease	210
404	Hypertensive heart and renal disease	I
410	Acute musecratic inference	87
411	Acute myocardial infarction	9,023
412	Old myocardial infarction	45 21
413	Angina pectoris	48
414	Other forms of chronic ischemic heart disease	9,402
415	Acute pulmonary heart disease	269
416	Chronic pulmonary heart disease	95
417	Other diseases of pulmonary circulation	4
421	Acute and subacute endocarditis	27
422	Acute myocarditis	11
423	Other diseases of pericardium	18
424	Other diseases of endocardium	488
425	Cardiomyopathy	1,052
426	Conduction disorders	1,032
427	Cardiac dysrhythmias	977
428	Heart failure	1.808
429	Ill-defined descriptions and complications of heart disease	3,790
430	Subarachnoid hemorrhage	266
431	Intracerebral hemorrhage	634
432	Other and unspecified intracranial hemorrhage	141
433	Occlusion and stenosis of precerebral arteries	55
434	Occlusion of cerebral arteries	886
43 4 435	Transient cerebral ischemia	8
436	Acute but ill-defined cerebrovascular disease	2,845
437	Other and ill-defined cerebrovascular disease	
437 438	Late effects of cerebrovascular disease	431
436 440		414
440 441	Atherosclerosis	805 504
771	Aortic alleurysiii	594

442 443		
443		3.
,	Other aneurysm	20
	Other peripheral vascular disease	1
444	Arterial embolism and thrombosis	3
446	Polyarteritis nodosa and allied conditions	4
447	Other disorders of arteries and arterioles	1 .
451	Phlebitis and thrombophlebitis	1
453	Other venous embolism and thrombosis	1
454	Varicose veins of lower extremities	1
455	Haemorrhoids	1
456	Varicose veins of other sites	1
457	Noninfective disorders of lymphatic channels	2
458	Umpetancian	
459	Other disorders of circulatory system	3
	VIII. DISEASES OF THE RESPIRATORY SYSTEM (460-519)	
464	Acute laryngitis and tracheitis	
465	Acute upper respiratory infections of multiple or unspecified sites	
466	Acute bronchitis and bronchiolitis	1 4
473	Chronic cinucitie	
478	Other diseases of upper respiratory tract	
	Viral pneumonia	· ·
480	Pneumococcal pneumonia	1 (
481	Other bacterial pneumonia	-
482	Pneumonia due to other specified organism	
483	Bronchopneumonia, organism unspecified	
485	Pneumonia, organism unspecified	2,5
486		, ,
487	Influenza	
490	Bronchitis, not specified as acute or chronic	t t
491	Chronic bronchitis	
492	Emphysema	1
493	Asthma	
494	Bronchiectasis	
495	Extrinsic allergic alveolitis	2,3
496	Chronic airways obstruction, not elsewhere classified	
500	Coal workers' pneumoconiosis	
501	Achaetosis	.
502	Pneumoconiosis due to other silica or silicates	
505	Pneumoconiosis unspecified	.
506	Despiratory conditions due to chemical fumes and Vapours	.
507	Decumenitie due to solids and liquids	. 4
508	Respiratory conditions due to other and unspecified external agents	.
510	Embroma	• 1
511	Pleuriev	•
512	Preumothoray	•
512	Abscess of lung and mediastinum	
	Pulmonary congestion and hypostasis	.
514 515	Postinflammatory pulmonary fibrosis	. 3
	Other alveolar and parietoalveolar pneumopathy	.
516 518	Other diseases of lung	. '

ICD List		
Number	Cause of Death	Number
519	Other diseases of respiratory system	21
	IX. DISEASES OF THE DIGESTIVE SYSTEM (520-579)	
527	Diseases of the salivary glands	1
528	Disorders of the oral soft tissues, excluding lesions specific for gingiva and tongue	2
530	Diseases of esophagus	64
531	Gastric ulcer	71
532	Duodenal ulcer	55
533	Peptic ulcer, site unspecified	83
534	Gastrojejunal ulcer	2
535	Gastritis and duodenitis	28
536 537	Disorders of function of stomach	3
537 540	Other disorders of stomach and duodenum	11
540 550	Acute appendicitis	8
550 551	Inguinal hernia	<u>e</u>
551 552	Other hernia of abdominal cavity, with gangrene	7
552	Other hernia of abdominal cavity with obstruction, without mention of gangrene	21
553	Other hernia of abdominal cavity without mention of obstruction or gangrene	17
555	Regional enteritis	17
556	Idiopathic proctocolitis	11
557	Vascular insufficiency of intestine	269
558	Other noninfective gastroenteritis and colitis	49
560	Intestinal obstruction without mention of hernia	205
562	Diverticula of intestine	131
564	Functional digestive disorders, not elsewhere classified	7
565	Anal fissure and fistula	3
566	Abscess of anal and rectal regions	
567	Peritonitis	59
568	Other disorders of peritoneum	10
569	Other disorders of intestine	79
570	Acute and subacute necrosis of liver	17
571	Chronic liver disease and cirrhosis	1,035
572	Liver abscess and sequelae of chronic liver disease	110
573	Other disorders of liver	70
574	Cholelithiasis	35
575	Other disorders of gallbladder	42
576	Other disorders of biliary tract	34
577	Diseases of pancreas	127
578	Gastrointestinal hemorrhage	237
579	Intestinal malabsorption	7
	X. DISEASES OF THE GENITOURINARY SYSTEM (580-629)	
580	Acute glomerulonephritis	2
581	Nephrotic syndrome	6
582	Chronic glomerulonephritis	34
583	Nephritis and nephropathy, not specified as acute or chronic	32
584	Acute renal failure	159
585	Chronic renal failure	243
586	Renal failure, unspecified	454

100	Wilchigan Residents, 1994	
ICD List Number	Cause of Death	Number
110111501		
587	Renal sclerosis, unspecified	1
588	Disorders resulting from impaired renal function	2
590	Infections of kidney	37
591	Hydronephrosis	2
592	Calculus of kidney and ureter	7
593	Other disorders of kidney and ureter	128
595	Cystitis	6
596	Other disorders of bladder	10
599	Other disorders of urethra and urinary tract	424 10
600	Hyperplasia of prostate	5
602	Other disorders of prostate	1
607	Disorders of penis	3
608	Other disorders of male genital organs	4
616	Inflammatory disease of cervix, vagina and vulva	1 1
618	Genital prolapse	1
619	Fistula involving female genital tract	1
620	Noninflammatory disorders of ovary, fallopian tube and broad ligament	1
623	Noninflammatory disorders of vagina	
	XI. COMPLICATIONS OF PREGNANCY, CHILDBIRTH,	
	AND THE PUERPERIUM (630-676)	
648	Other current conditions in the mother classifiable elsewhere but complicating pregnancy,	
040	childhirth and the puerperium	1
658	Other problems associated with amniotic cavity and membranes	1
666	Postpartum haemorrhage	
670	Major puerperal infection	1
671	Venous complications in pregnancy and the puerperium	1
674	Other and unspecified complications of the puerperium, not elsewhere classified	2
	XII. DISEASES OF THE SKIN AND SUBCUTANEOUS TISSUE (680-709)	
682	Other cellulitis and abscess	25
686	Other local infections of skin and subcutaneous tissue	5
694	Bullous dermatoses	6
695	Enthematous conditions	5
696	Psoriasis and similar disorders	1
707	Chronic ulcer of skin	92
709	Other disorders of skin and subcutaneous tissue	1
	XIII. DISEASES OF THE MUSCULOSKELETAL SYSTEM	
	AND CONNECTIVE TISSUE (710-739)	
		124
710	Diffuse diseases of connective tissue	
711	Arthropathy associated with infections	84
714	Rheumatoid arthritis and other inflammatory polyarthropathies	26
715	Osteoarthrosis and allied disorders	
716	Other and unspecified arthropathies	-
718	Other derangement of joint	1
720	Ankylosing spondylists and other inflammatory spondylopathies	5
721	Spondylosis and allied disorders	

ICD List		
Number	Cause of Death	Number
722	Inverterbral disc disorders	1
723	Other disorders of cervical region	1
724	Other and unspecified disorders of back	2
728	Disorders of muscle, ligament and fascia	13
729	Other disorders of soft tissues	10
730	Osteomyelitis, periostitis and other infections involving bone	35
731	Osteitis deformans and osteopathies associated with other disorders classified elsewhere	5
732	Osteochondropathies	1
733	Other disorders of bone and cartilage	22
737	Curvature of spine	-8
738	Other acquired deformity	1
	,	,
	XIV. CONGENITAL ANOMALIES (740-759)	
	· · · ·	
740	Anencephalus and similar anomalies	12
741	Spina bifida	3
742	Other congenital anomalies of nervous system	66
744	Congenital anomalies of ear, face and neck	1
745	Bulbus cordis anomalies and anomalies of cardiac septal closure	32
746	Other congenital anomalies of heart	91
747	Other congenital anomalies of circulatory system	44
748	Congenital anomalies of respiratory system	34
750	Other congenital anomalies of upper alimentary tract	1
751	Other congenital anomalies of digestive system	5
752	Congenital anomalies of genital organs	1
753	Congenital anomalies of urinary system	30
756	Other congenital musculoskeletal anomalies	19
757	Congenital anomalies of the integument	3
758	Chromosomal anomalies	40
759	Other and unspecified congenital anomalies	37
		•
	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	6
761	Fetus or newborn affected by maternal complications of pregnancy	45
762	Fetus or newborn affected by complications of placenta, cord and membranes	29
763	Fetus or newborn affected by other complications of labor and delivery	11
764	Slow fetal growth and fetal mainutrition	1
765	Disorders relating to short gestation and unspecified low birthweight	243
767	Birth trauma	11
768	Intrauterine hypoxia and birth asphyxia	· ·
769		15
770	Respiratory distress syndrome	83 73
771	Infections specific to the perinatal period	
772	Fetal and neonatal hemorrhage	22
773	Hemolytic disease of fetus or newborn, due to isoimmunization	10
775	Endogring and motobalic disturbance encoins to the fetus and newhere	4
776	Endocrine and metabolic disturbances specific to the fetus and newborn	2
i	Hematological disorders of fetus and newborn	4
777 778	Perinatal disorders of digestive system	11
110	Conditions involving the integument and temperature regulation of fetus and newborn	8

ICD List Number	Cause of Death	Number
779	Other and ill-defined conditions originating in the perinatal period	30
	XVI. SYMPTOMS, SIGNS AND ILL-DEFINED CONDITIONS (780-799)	
		11
780	General symptoms	2
781 705	Symptoms involving cardiovascular system	28
785	Symptoms involving cardiovascular system	7
786	Nonspecific findings on examination of blood	3
790	Nonspecific findings on examination of urine	3
791 707	Senility without mention of psychosis	3
797	Suddon death cause unknown	180
798 799	Other ill-defined and unknown causes of morbidity and mortality	129
	XVII. EXTERNAL CAUSES OF INJURY AND POISONING (E800-E999)	
		10
E805	Hit by rolling stock [railway]	1
E810	Motor vehicle traffic accident involving collision with train	705
E812	Motor vehicle traffic accident involving collision with other vehicle	23
E813	Motor vehicle traffic accident involving collision with pedestrian	194
E814	Other motor vehicle traffic accident involving collision on the highway	157
E815	Motor vehicle traffic accident due to loss of control, without collision on the highway	156
E816	Noncollision motor vehicle traffic accident while boarding or alighting	1
E817	Other noncollision motor vehicle traffic accident	17
E818	Motor vehicle traffic accident of unspecified nature	143
E819	Nontraffic accident involving motor-driven snow vehicle	12
E820	Nontraffic accident involving inter-entremental short vehicle	3
E821	Other motor vehicle nontraffic accident involving collision with moving object	8
E822	Other motor vehicle nontraffic accident involving collision with stationary object	1
E823	Other motor vehicle nontraffic accident of other and unspecified nature	6
E825	Pedal cycle accident	1
E826	Accident involving animal being ridden	,
E828	Accident to watercraft causing submersion	177
E830	Accident to watercraft causing other injury	٠ ,
E831 E832	Other accidental submersion or drowning in water transport accident	1 0
E832 E838	Other and unspecified water transport accident	9
E840	Assistant to powered aircraft at takeoff or landing	
E841	Assistant to powered aircraft other and unspecified	'-
E844	Other an existed air transport assidents	
E850	Accidental noisoning by analgesics, antipyretics, antirneumatics	
E850	Applicantal naiconing by harbituates	
E854	Applicantal poleoning by other psychotropic agents	- -
E855	Accidental poisoning by other drugs acting on central and autonomic nervous systems	.
E856	Accidental poisoning by antibiotics	٠
E858	A idental policoning by other drugs	. 5
E860	Applicantal paleoning by alcohol, not elsewhere classified	. 4
E861	Assidental poisoning by cleaning and polishing agents, disinfectants, paints and variable	s í
E862	Accidental poisoning by petroleum products, other solvents and their vapours, not	. 2
E866	Accidental poisoning by other and unspecified solid and liquid substances	. 4

ICD List	Michigan Residents, 1994	
Number	Cause of Death	Number
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Outdo of Douth	Hamber
E867	Accidental poisoning by gas distributed by pipeline	2
E868	Accidental poisoning by other utility gas and other carbon monoxide	17
E869	Accidental poisoning by other gases and vapors	6
E870	Accidental cut, puncture, perforation or hemorrhage during medical care	
E876	Other and unpresited misedventures during medical care	6
E878	Other and unspecified misadventures during medical care	2
E0/0	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	47
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.	22
E880	Fall on or from stairs or steps	48
E881	Fall on or from ladders or scaffolding	
E882	Fall from or out of building or other structure	8
E884	Fall into hole or other opening in surface	33
E885	Fall on same level from slipping, tripping or stumbling	25
E887	Fracture, cause unspecified	155
E888	Other and unspecified fall	198
E890	Configuration in princts dwelling	1
E890 E891	Conflagration in private dwelling	154
	Conflagration in other and unspecified building or structure	7
E892	Conflagration not in building or structure	2
E898	Accident caused by other specified fire and flames	2
E899	Accident caused by unspecified fire	
E900	Excessive heat	11
E901	Excessive cold	32
E904	Hunger, thirst, exposure, neglect	12
E905	Venomous animals and plants as the cause of poisoning and toxic reactions	2
E906	Other injury caused by animals	1
E907	Lightning	2
E910	Accidental drowning and submersion	98
E911	Inhalation and ingestion of food causing obstruction of respiratory tract or suffocation	28
E912	Inhalation and ingestion of other object causing obstruction of respiratory tract or suffocation	51
E913	Accidental mechanical suffocation	49
E916	Struck accidentally by falling object	28
E917	Striking against or struck accidentally by objects or persons	3
E918	Caught accidentally in or between objects	5
E919	Accidents caused by machinery	20
E920	Accidents caused by cutting and piercing instruments or objects	3
E921	Accidents caused by explosion of pressure vessel	1
E922	Accident caused by firearm missile	29
E923	Accident caused by explosive material	2
E924	Accident caused by hot substance or object, caustic or corrosive material and steam	1
E925	Accident caused by electric current	22
E926	Exposure to radiation	1
E928	Other and unspecified environmental and accidental causes	116
E929	Late effects of accidental injury	41
E935	Analgesics, antipyretics and antiheumatics	
E939	Periodetropio agente	1
	Psychotropic agents	1
E947	Other and unspecified drugs and medicaments [medicinal substances]	9
E950	Suicide and self-inflicted poisoning by solid or liquid substance	103
E951	Suicide and self-inflicted poisoning by gases in domestic use	1

ICD List Number	Cause of Death	Number
E952	Suicide and self-inflicted poisoning by other gases and vapors	90
	Suicide and self-inflicted injury by hanging, strangulation and suffocation	182
E953 E954	Suicide and self-inflicted injury by submersion [drowning]	8
	Suicide and self-inflicted injury by firearms and explosives	594
E955	Suicide and self-inflicted injury by cutting and piercing instrument	12
E956	Suicide and self-inflicted injuries by jumping from high place	10
E957 E958	Suicide and self-inflicted injury by other and unspecified means	22
E958	Fight, brawl, rape	2
	Assault by poisoning	3
E962	Assault by hanging and strangulation	40
E963	Assault by natigning and strangulation	1
E964	Assault by firearms and explosives	732
E965	Assault by cutting and piercing instrument	118
E966	Child battering and other maltreatment	13
E967	Assault by other and unspecified means	104
E968	Late effects of injury purposely inflicted by other persons	2
E969	1 due to local intervention by firearms	8
E970	Poisoning by solid or liquid substances, undetermined whether accidentally or purposely	[
E980		88
E981	Poisoning by gases in domestic use, undetermined whether accidentally or purposely	1
E982	Poisoning by other gases, undetermined whether accidentally or purposely inflicted	1
E983	Hanging, strangulation or suffocation, undetermined whether accidentally or purposely	
E903	infliated	2
E984	Submersion [drowning], undetermined whether accidentally or purposely inflicted	10
E985	Injury by firearms and explosives, undetermined whether accidentally or purposely	
E963	inflicted	20
E987	Falling from high place undetermined whether accidentally or purposely inflicted	2
E988	Injury by other and unspecified means, undetermined whether accidentally or purposely	14
F000	Late effects of injury, undetermined whether accidentally or purposely inflicted	3
E989 E999	Late effects of injury due to war operations	1
Easa	Late enects of righty due to that operations	

Table 4.17

Population Changes by County
Michigan, 1982 and 1992

		Michiga	ın, 1982 and 199	92		
Area	Population Estimate July 1, 1982	Population Estimate July 1, 1992	Net Change	Percent Change	Natural Increase	Estimated Net Migration
Michigan	9,118,373	9,433,666	315,292	3.5	631,143	-315,851
Alcona	9,798	10,254	456	4.7	-348	804
Alger	9,091	9,349	258	2.8	-12	270
Allegan	82,846	93,078	10,232	12.4	7,375	2,857
Alpena	31,934	31,000	-934	-2.9	999	-1,933
Antrim	16,520	18,897	2,377	14.4	428	1,949
Arenac	15,004	15,625	621	4.1	480	141
Baraga	8,413	7,828	-585	-7.0	50	-635
Barry	46,039	51,196	5,157	11.2	3,181	1,976
Bay	118,101	112,131	-5,970	-5.1	6,633	-12,603
Benzie	11,047	12,616	1,569	14.2	346	1,223
Berrien	165,498	161,466	-4,032	-2.4	9,714	-13,746
Branch	39,178	41,871	2,693	6.9	2,343	350
Calhoun	139,377	138,381	-996	-0.7	7,214	-8,210
Cass	48,548	49,112	564	1.2	1,792	-1,228
Charlevoix	19,713	22,225	2,512	12.7	1,235	1,277
Cheboygan	20,810	21,780	970	4.7	638	332
Chippewa	29,096	35,640	6,544	22.5	1,005	5,539
Clare	24,185	26,384	2,199	9.1	676	1,523
Clinton	55,268	59,397	4,129	7.5	4,792	-663
Crawford	9,635	12,972	3,337	34.6	633	2,704
Delta	39,509	38,208	-1,301	-3.3	1,489	-2,790
Dickinson	25,319	27,014	1,695	6.7	444	1,251
Eaton	88,098	95,253	7,155	8.1	6,009	1,146
Emmet	23,243	26,057	2,814	12.1	1,329	1,485
Genesee	440,354	433,508	-6,846	-1.6	34,960	-41,806
Gladwin	20,439	23,007	2,568	12.6	654	1,914
Gogebic	19,561	17,891	-1,670	-8.5	-739	-931
Grand Traverse	56,224	67,290	11,066	19.7	4,623	6,443
Gratiot	39,434	39,450	16	0.0	1,703	-1,687
Hillsdale	41,493	44,407	2,914	7.0	2,501	413
Houghton	37,869	35,831	-2,038	-5.4	444	-2,482
Huron	36,256	34,977	-1,279	-3.5	1,162	-2,441
Ingham	271,472	281,798	10,326	3.8	27,256	-16,930
Ionia	51,911	57,986	6,075	11.7	4,512	1,563
Iosco	28,968	30,211	1,243	4.3	2,672	-1,429
Iron	13,598	13,136	-462	-3.4	-657	195
Isabelia	53,474	56,212	2,738	5.1	3,821	-1,083
Jackson	148,506	151,740	3,234	2.2	8,612	-5,378
Kalamazoo	214,042	225,648	11,606	5.4	17,202	-5,596
Kalkaska	11,178	14,038	2,860	25.6	979	1,881

Table 4.17 (continued)

Population Changes by County
Michigan, 1982 and 1992

		Michigar	ı, 1982 and 199	2		
Area	Population Estimate July 1, 1982	Population Estimate July 1, 1992	Net Change	Percent Change	Natural Increase	Estimated Net Migration
Kent	451,847	511,997	60,150	13.3	53,635	6,515
Keweenaw	2,016	1,706	-310	-15.4	-152	-158
Lake	8,149	9,029	880	10.8	-165	1,045
Lapeer	69,535	78,526	8,991	12.9	5,661	3,330
Leelanau	14,363	17,292	2,929	20.4	780	2,149
Lenawee	88,538	94,132	5,594	6.3	5,558	36
Livingston	100,247	122,658	22,411	22.4	8,467	13,944
Luce	6,162	5,604	-558	-9.1	57	-615
Mackinac	10,166	10,752	586	5.8	177	409
Macomb	687,901	728,220	40,319	5.9	41,568	-1,249
Manistee	22,420	21,925	-495	-2.2	-76	-419
Marquette	72,845	71,428	-1,417	-1.9	5,645	-7,062
Mason	26,489	26,420	-69	-0.3	680	-749 -97
Mecosta	36,888	38,553	1,665	4.5	1,762	-1,988
Menominee	26,004	24,593	-1,411	-5.4	577	-1,900
Midland	73,957	77,950	3,993	5.4	6,539	-2,546
Missaukee	10,388		2,351	22.6	732	1,619
Monroe	132,011	135,962	3,951	3.0	8,537	-4,586
Montcalm	48,555		6,890	14.2	3,581	3,309
Montmorency	7,427	9,355	1,928	26.0	-301	2,229
Muskegon	155,444	161,980	6,536	4.2	11,891	-5,355
Newaygo	35,690	40,756	5,066	14.2	2,841	2,225
Oakland	1,000,033		118,578	11.9	74,877	43,701
Oceana	21,931	22,954	1,023	4.7	1,582	-559
Ogemaw	16,836	19,640	2,804	16.7	370	2,434
Ontonagon	10,183	8,761	-1,422	-14.0	-123	-1,299
Osceola	19,560		1,078	5.5	1,110	-32
Oscoda	7,007	1	1,215	17.3	67	1,148
Otsego	15,167		3,929	25.9	1,088	2,841
Ottawa	159,978		37,319	23.3	18,991	18,328
Presque Isle	13,989	13,865	-124	-0.9	75	-199
Roscommon	17,397		3,464	19.9	-367	3,831
Saginaw	223,166		-10,689	-4.8	16,575	-27,264
St. Clair	137,720		12,365	9.0	8,192	4,173
St. Joseph	57,096		2,292	4.0	3,825	-1,533
Sanilac	39,993	40,810	817	2.0	1,546	-729
Schoolcraft	8,516	8,478	-38	-0.4	26	-64
Shiawassee	69,608		1,224	1.8	4,816	-3,592
Tuscola	55,817			0.6	3,293	-2,980 1,466
Van Buren	66,511	72,331	5,820	8.8	4,354	1,466
Washtenaw	260,799	288,025	27,226	10.4	24,846	2,380
Wayne	2,243,320		-147,141	-6.6	138,432	-285,573
Wexford	25,654			5.6	1,493	-48

Table 4.18

Population by Age, Race and Sex
Michigan Residents, 1992

	T						1105					
Age		All Races	S		White			Black			All Othe	r
Years	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
<1	138,684	70,764	67,920	105,312	53,761	51,551	30,120	15,305	14,815	3,252	1,698	1,554
1-4	575,565	294,137	281,428	460,483	235,965	224,518	101,307	51,142	50,165	13,775	7,030	6,745
5-9	694,130	355,548	338,582	567,974	291,891	276,083	109,598	55,321	54,277	16,558	8,336	8,222
10-14	695,735	356,001	339,734	560,531	287,919	272,612	118,836	59,893	58,943	16,368	8,189	8,179
15-19	662,245	337,261	324,984	518,321	265,345	252,976	126,667	63,063	63,604	17,257	8,853	8,404
20-24	712,213	353,561	358,652	582,654	291,992	290,662	112,751	52,899	59,852	16,808	8,670	8,138
25-29	717,175	353,631	363,544	600,913	300,237	300,676	99,962	45,218	54,744	16,300	8,176	8,124
30-34	800,239	392,383	407,856	673,567	334,964	338,603	110,987	49,513	61,474	15,685	7,906	7,779
35-39	782,349	385,156	397,193	658,963	329,853	329,110	108,580	48,287	60,293	14,806	7,016	7,790
40-44	702,933	345,923	357,010	596,757	297,755	299,002	92,463	42,017	50,446	13,713	6,151	7,562
45-49	572,864	281,962	290,902	495,633	246,017	249,616	66,943	30,915	36,028	10,288	5,030	5,258
50-54	452,002	220,284	231,718	394,144	193,989	200,155	50,413	22,450	27,963	7,445	3,845	3,600
55-59	387,635	186,092	201,543	336,645	163,513	173,132	46,073	20,198	25,875	4,917	2,381	2,536
60-64	389,197	185,304	203,893	340,691	163,878	176,813	44,656	19,740	24,916	3,850	1,686	2,164
65-69	367,746	167,190	200,556	323,690	147,714	175,976	41,230	18,229	23,001	2,826	1,247	1,579
70-74	301,583	128,178	173,405	269,009	114,712	154,297	30,706	12,734	17,972	1,868	732	1,136
75-79	227,715	90,118	137,597	203,839	80,927	122,912	22,611	8,682	13,929	1,265	509	756
80-84	140,978	49,315	91,663	127,685	44,401	83,284	12,604	4,589	8,015	689	325	364
85+	112,678	31,696	80,982	101,586				3,491	7,178	423	169	254
Total	9,433,666	4,584,504	4,849,162	7,918,397	3,872,869	4,045,528	1,337,176	623,686	713,490	178,093	87,949	90,144

Source:

Office of the State Demographer, Michigan Department of Management and Budget. Estimates Branch, Bureau of the Census, U.S. Department of Commerce.

Table 4.19 **Abridged Life Table** Michigan Residents, 1994

Age	nqx(1)1	lx(2)1	ndx(3)1	nLx(4)1	Tx(5)1	ex(6)1
0-1	0.00854	100,000	854	99,249	7,521,221	75.2
1-5	0.00183	99,146	181	396,129	7,421,972	74.9
5-10	0.00089	98,965	88	494,585	7,025,843	71.0
10-15	0.00138	98,878	136	494,125	6,531,258	66.1
15-20	0.00459	98,742	453	492,655	6,037,133	61.1
20-25	0.00520	98,289	511	490,177	5,544,479	56.4
25-30	0.00515	97,778	503	487,663	5,054,301	51.7
30-35	0.00676	97,275	657	484,815	4,566,638	46.9
35-40	0.00942	96,617	909	480,939	4,081,823	42.2
40-45	0.01317	95,708	1,260	475,585	3,600,884	37.6
45-50	0.01950	94,448	1,841	467,977	3,125,298	33.1
50-55	0.03121	92,607	2,890	456,254	2,657,321	28.7
55-60	0.04438	89,717	3,982	439,174	2,201,067	24.5
60-65	0.06421	85,735	5,505	415,791	1,761,893	20.6
65-70	0.10212	80,231	8,193	381,920	1,346,101	16.8
70-75	0.15962	72,038	11,499	332,579	964,181	13.4
75-80	0.22545	60,539	13,648	269,575	631,602	10.4
80-85	0.34753	46,891	16,296	193,752	362,027	7.7
85+	1.00000	30,595	30,595	168,275	168,275	5.5

¹ Definitions of life table values are contained in the Technical Notes.

Table 4.20

Abridged Life Table for Males
Michigan Residents, 1994

Age	nqx(1) ¹	lx(2)1	ndx(3)1	nLx(4)1	Tx(5)1	ex(6)1
0-1	0.00892	100,000	892	99,223	7,210,394	72.1
1-5	0.00200	99,108	198	395,946	7,111,170	71.8
5-10	0.00109	98,910	107	494,257	6,715,224	67.9
10-15	0.00180	98,803	178	493,687	6,220,967	63.0
15-20	0.00664	98,626	655	491,620	5,727,280	58.1
20-25	0.00805	97,971	788	487,908	5,235,661	53.4
25-30	0.00784	97,183	761	484,045	4,747,753	48.9
30-35	0.00977	96,422	942	479,857	4,263,708	44.2
35-40	0.01309	95,480	1,249	474,424	3,783,851	39.6
40-45	0.01741	94,231	1,640	467,270	3,309,427	35.1
45-50	0.02462	92,591	2,279	457,655	2,842,156	30.7
50-55	0.03924	90,312	3,544	443,225	2,384,502	26.4
55-60	0.05522	86,768	4,791	422,492	1,941,277	22.4
60-65	0.03322	81,978	6,550	394,543	1,518,786	18.5
65-70	0.12908	75,428	9,736	354,218	1,124,242	14.9
1	0.20348	65,692	13,367	296,085	770,024	11.7
70-75	0.28188	52,325	14,749	225,301	473,939	9.1
75-80	1	37,576	16,008	147,272	248,638	6.6
80-85 85+	0.42604 1.00000	21,567	21,567	101,365	101,365	4.7

¹ Definitions of life table values are contained in the Technical Notes.

Table 4.21

Abridged Life Table for Females

Michigan Residents, 1994

		<u>-</u>	an Residents, 13		T (5)4	(0)1
Age	nqx(1) ¹	lx(2) ¹	ndx(3)1	nLx(4) ¹	Tx(5) ¹	ex(6) ¹
0-1	0.00805	100,000	805	99,285	7,821,730	78.2
1-5	0.00165	99,195	163	396,355	7,722,445	77.9
5-10	0.00068	99,031	67	494,971	7,326,090	74.0
10-15	0.00093	98,964	92	494,627	6,831,119	69.0
15-20	0.00246	98,872	243	493,783	6,336,492	64.1
20-25	0.00239	98,629	235	492,559	5,842,709	59.2
25-30	0.00253	98,394	249	491,379	5,350,149	54.4
30-35	0.00386	98,146	378	489,849	4,858,770	49.5
35-40	0.00584	97,767	571	487,513	4,368,921	44.7
40-45	0.00904	97,196	878	483,958	3,881,408	39.9
45-50	0.01452	96,318	1,398	478,377	3,397,450	35.3
50-55	0.02352	94,920	2,232	469,389	2,919,073	30.8
55-60	0.03425	92,688	3,174	455,964	2,449,684	26.4
60-65	0.04974	89,513	4,452	437,177	1,993,720	22.3
65-70	0.07908	85,062	6,726	409,618	1,556,543	18.3
70-75	0.12582	78,335	9,856	368,296	1,146,925	14.6
75-80	0.18637	68,480	12,762	311,941	778,629	11.4
80-85	0.30160	55,718	16,804	237,098	466,688	8.4
85+	1.00000	38,914	38,914	229,590	229,590	5.9
1 00.		1	·			

Definitions of life table values are contained in the Technical Notes.

Table 4.22 **Abridged Life Table for Whites** Michigan Residents, 1994

Age	nqx(1) ¹	lx(2)1	ndx(3) ¹	nLx(4)1	Tx(5)1	ex(6)1
0-1	0.00636	100,000	636	99,445	7,642,149	76.4
1-5	0.00140	99,364	139	397,109	7,542,704	75.9
5-10	0.00072	99,225	71	495,930	7,145,595	72.0
10-15	0.00125	99,154	124	495,524	6,649,665	67.1
15-20	0.00376	99,030	372	494,273	6,154,141	62.1
20-25	0.00371	98,658	366	492,379	5,659,868	57.4
25-30	0.00386	98,293	379	490,545	5,167,489	52.6
30-35	0.00517	97,914	505	488,381	4,676,945	47.8
35-40	0.00765	97,408	745	485,277	4,188,563	43.0
40-45	0.01003	96,664	969	481,052	3,703,287	38.3
45-50	0.01558	95,695	1,491	475,072	3,222,235	33.7
50-55	0.02683	94,204	2,527	465,159	2,747,164	29.2
55-60	0.04013	91,677	3,678	449,762	2,282,005	24.9
60-65	0.05991	87,999	5,272	427,714	1,832,242	20.8
65-70	0.09663	82,727	7,994	394,937	1,404,529	17.0
70-75	0.15313	74,733	11,444	346,334	1,009,592	13.5
75-80	0.22308	63,290	14,119	282,295	663,258	10.5
80-85	0.34421	49,171	16,925	203,609	380,964	7.7
85+	1.00000	32,246	32,246	177,355	177,355	5.5

¹ Definitions of life table values are contained in the Technical Notes.

Table 4.23
Abridged Life Table for White Males
Michigan Residents, 1994

Age	nqx(1) ¹	lx(2)1	ndx(3)1	nLx(4)1	Tx(5)1	ex(6)1
0-1	0.00664	100,000	664	99,428	7,356,354	73.6
1-5	0.00155	99,336	153	396,973	7,256,926	73.1
5-10	0.00090	99,183	88	495,671	6,859,953	69.2
10-15	0.00169	99,094	167	495,143	6,364,282	64.2
15-20	0.00514	98,928	508	493,447	5,869,140	59.3
20-25	0.00549	98,420	540	490,762	5,375,693	54.6
25-30	0.00575	97,880	562	488,033	4,884,931	49.9
30-35	0.00738	97,318	718	484,896	4,396,898	45.2
35-40	0.01086	96,600	1,049	480,494	3,912,003	40.5
40-45	0.01342	95,551	1,282	474,717	3,431,508	35.9
45-50	0.01964	94,269	1,851	467,091	2,956,792	31.4
50-55	0.03333	92,418	3,079	454,924	2,489,701	26.9
55-60	0.04941	89,338	4,414	436,329	2,034,777	22.8
60-65	0.07430	84,924	6,309	409,932	1,598,448	18.8
65-70	0.12235	78,615	9,618	370,527	1,188,515	15.1
70-75	0.19556	68,997	13,493	312,466	817,989	11.9
75-80	0.27820	55,504	15,441	239,642	505,523	9.1
80-85	0.42352	40,063	16,967	157,330	265,881	6.6
85+	1.00000	23,096	23,096	108,551	108,551	4.7

¹ Definitions of life table values are contained in the Technical Notes.

Table 4.24

Abridged Life Table for White Females

Michigan Residents, 1994

Age	nqx(1)1	lx(2)1	ndx(3)1	nLx(4) ¹	Tx(5)1	ex(6)1
0-1	0.00601	100,000	601	99,469	7,915,293	79.2
1-5	0.00125	99,399	124	397,275	7,815,824	78.6
5-10	0.00053	99,275	52	496,230	7,418,549	74.7
10-15	0.00079	99,223	78	495,954	6,922,319	69.8
15-20	0.00232	99,144	229	495,173	6,426,365	64.8
20-25	0.00193	98,915	190	494,093	5,931,192	60.0
25-30	0.00197	98,725	194	493,162	5,437,098	55.1
30-35	0.00297	98,531	292	491,977	4,943,936	50.2
35 <u>-</u> 40	0.00442	98,239	433	490,187	4,451,959	45.3
40-45	0.00664	97,806	649	487,551	3,961,772	40.5
45-50	0.01156	97,157	1,123	483,252	3,474,221	35.8
50-55	0.02049	96,034	1,968	475,629	2,990,969	31.1
55-60	0.03125	94,066	2,939	463,454	2,515,340	26.7
60-65	0.04641	91,127	4,228	445,800	2,051,887	22.5
65-70	0.07453	86,898	6,476	419,436	1,606,087	18.5
70-75	0.12029	80,422	9,674	379,300	1,186,651	14.8
75-80	0.18478	70,748	13,073	322,628	807,350	11.4
75-80 80-85	0.29824	57,676	17,201	245,922	484,722	8.4
85+	1.00000	40,475	40,475	238,800	238,800	5.9

Definitions of life table values are contained in the Technical Notes.

Table 4.25 **Abridged Life Table for Blacks**Michigan Residents, 1994

		Wilcing	all itesidents, is			
Age	nqx(1) ¹	lx(2)1	ndx(3)1	nLx(4) ¹	Tx(5) ¹	ex(6)1
0-1	0.01644	100,000	1,644	98,539	6,843,148	68.4
1-5	0.00363	98,356	357	392,530	6,744,608	68.6
5-10	0.00178	98,000	174	489,520	6,352,078	64.8
10-15	0.00198	97,826	193	488,776	5,862,559	59.9
15-20	0.00827	97,632	806	486,365	5,373,782	55.0
20-25	0.01292	96,826	1,250	481,098	4,887,417	50.5
25-30	0.01323	95,575	1,264	474,784	4,406,319	46.1
30-35	0.01663	94,312	1,568	467,772	3,931,535	41.7
35 -4 0	0.02053	92,744	1,904	459,276	3,463,764	37.3
40-45	0.03401	90,840	3,089	446,964	3,004,488	33.1
45-50	0.04839	87,751	4,246	428,640	2,557,524	29.1
50-55	0.06587	83,505	5,500	404,098	2,128,884	25.5
55 - 60	0.07436	78,005	5,800	375,793	1,724,786	22.1
60-65	0.09401	72,205	6,788	344,774	1,348,994	18.7
65-70	0.14140	65,417	9,250	305,052	1,004,220	15.4
70-75	0.21407	56,167	12,024	251,114	699,168	12.4
75-80	0.24610	44,144	10,864	193,688	448,054	10.2
80-85	0.37984	33,280	12,641	134,658	254,366	7.6
85+	1.00000	20,639	20,639	119,708	119,708	5.8
1	1	1 "	l.	4		

¹ Definitions of life table values are contained in the Technical Notes.

Table 4.26

Abridged Life Table for Black Males

Michigan Residents, 1994

Age	nqx(1) ¹	lx(2)1	ndx(3)1	nLx(4)1	Tx(5)1	ex(6)1
0-1	0.01732	100,000	1,732	98,468	6,359,322	63.6
1-5	0.00398	98,268	391	392,121	6,260,854	63.7
5-10	0.00226	97,877	221	488,778	5,868,733	60.0
10-15	0.00242	97,656	236	487,918	5,379,954	55.1
15-20	0.01348	97,420	1,313	484,219	4,892,036	50.2
20-25	0.02254	96,107	2,166	475,281	4,407,817	45.9
25-30	0.02221	93,941	2,086	464,540	3,932,536	41.9
30-35	0.02613	91,855	2,399	453,388	3,467,996	37.8
35-40	0.02921	89,456	2,613	441,092	3,014,608	33.7
40-45	0.04668	86,843	4,053	424,651	2,573,516	29.6
45-50	0.06460	82,790	5,348	401,201	2,148,864	26.0
50-55	0.09088	77,442	7,038	369,953	1,747,663	22.6
55-60	0.09889	70,405	6,962	334,751	1,377,710	19.6
60-65	0.12093	63,443	7,672	298,661	1,042,959	16.4
65-70	0.17881	55,771	9,972	254,910	744,298	13.3
70-75	0.27077	45,799	12,401	198,104	489,388	10.7
75-80	0.31454	33,398	10,505	140,292	291,284	8.7
80-85	0.45014	22,893	10,305	88,050	150,992	6.6
85+	1.00000	12,588	12,588	62,942	62,942	5.0

¹ Definitions of life table values are contained in the Technical Notes.

Table 4.27

Abridged Life Table for Black Females

Michigan Residents, 1994

		14110111	gan residents, i			
Age	nqx(1) ¹	lx(2)1	ndx(3)1	nLx(4)1	Tx(5)1	ex(6)1
0-1	0.01533	100,000	1,533	98,633	7,316,001	73.2
1-5	0.00327	98,467	321	393,033	7,217,369	73.3
5-10	0.00129	98,146	127	490,383	6,824,336	69.5
10-15	0.00153	98,020	150	489,761	6,333,953	64.6
15-20	0.00307	97,870	300	488,658	5,844,192	59.7
20-25	0.00434	97,570	423	486,848	5,355,534	54.9
25-30	0.00574	97,147	558	484,434	4,868,686	50.1
30-35	0.00892	96,590	861	480,950	4,384,252	45.4
35-40	0.01352	95,729	1,294	475,690	3,903,301	40.8
40-45	0.02334	94,435	2,204	467,054	3,427,611	36.3
45-50	0.03428	92,231	3,161	453,634	2,960,558	32.1
50-55	0.04531	89,070	4,035	435,574	2,506,924	28.1
55-60	0.05476	85,035	4,656	413,902	2,071,350	24.4
60-65	0.07212	80,379	5,796	388,155	1,657,448	20.6
65-70	0.11066	74,583	8,253	353,444	1,269,293	17.0
70-75	0.17154	66,330	11,378	303,777	915,848	13.8
75-80	0.20024	54,952	11,003	247,958	612,071	11.1
80-85	0.33602	43,949	14,767	183,188	364,113	8.3
85+	1.00000	29,181	29,181	180,924	180,924	6.2
		1		1	1	1

¹ Definitions of life table values are contained in the Technical Notes

Table 4.28 Age-Adjusted Death Rates¹ by Race and Sex

	T		Michigan ²			White			Black	
Place	Year			Famala	Total	Male	Female	Total	Male	Female
		Total	Male	Female	IOLAI	IVIAIC	Terriale	1000	10.0.0	
	1070	717.5	925.9	537.3	685.5	889.4	510.8	1,017.1	1,274.1	787.8
	1970	707.9	922.9	524.0	672.5	881.2	495.7	1,034.2	1,315.0	785.3
	1971	707.9	928.2	526.4	677.2	888.0	499.4	1,017.8	1,302.6	767.1
	1972		906.3	513.7	658.4	862.6	486.0	1,014.1	1,309.1	757.9
	1973	694.3		488.0	628.4	824.6	464.2	948.4	1,235.6	698.6
	1974	660.7	865.1		610.1	800.5	452.0	904.1	1,198.8	649.8
	1975	640.2	840.3	472.4 469.1	607.2	801.4	448.5	889.6	1,170.5	650.8
1	1976	636.1	838.5		587.3	781.6	428.8	851.7	1,116.5	628.0
Mich.	1977	614.4	814.8	449.4	578.7	765.7	426.8	842.7	1,085.5	640.3
	1978	606.3	797.8	449.8		742.5	409.7	812.6	1,063.9	604.2
	1979	585.4	775.6	431.4	557.9	742.5 735.5	414.9	829.5	1,091.4	615.2
	1980	588.0	773.9	438.7	557.1		403.0	823.9	1,075.3	619.6
	1981	567.4	752.1	424.5	542.2	718.5	395.6	807.8	1,055.2	607.2
	1982	556.9	739.5	416.8	531.9	705.4		816.6	1,065.3	615.7
	1983	557.1	735.0	421.2	531.1	698.7	399.3	813.3	1,003.5	605.0
	1984	564.5	736.5	431.3	533.7	694.8	407.2			612.3
	1985	570.0	747.3	427.6	534.9	701.2	402.8	840.4	1,121.8	632.4
	1986	566.9	734.8	431.0	529.2	685.4	404.0	857.1	1,136.4	
	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.
	1992	525.3	677.3	404.4	483.1	623.7	372.4	806.8	1,060.0	608.
	1993	525.8	671.6	408.1	482.1	614.3	376.6	814.7	1,077.6	607.
	1994	525.2	669.8	407.9	481.3	611.1	377.0	819.9	1,097.0	601.
	1970	714.3	931.6	532.5	679.6	893.4	501.7	1,044.0	1,318.6	814.
	1971	697.6	913.3	519.1	663.7	876.0	489.1	1,007.8	1,276.1	784.
	1	698.0	918.0	516.6	664.0	879.3	487.6	1,009.5	1,296.6	772.
	1972		905.9	508.1	654.0	868.5	479.3	993.1	1,272.1	640.
	1973	687.3	870.9	487.0	629.0	836.1	461.0	940.4	1,215.5	717.
	1974	659.5	837.2	462.5	602.2	804.3	439.0	890.8	1,163.0	670.
	1975	630.4		455.0	591.3	789.3	432.5	870.5	1,138.3	654.
	1976	618.5	820.9 801.3	441.8	575.7	770.6	419.6	849.3	1,112.1	639
U.S.	1977	602.1		437.4	569.5	761.1	416.4	831.8	1,093.9	622
	1978	595.0	791.4		551.9	738.4	402.5	840.1	1,090.4	636
	1979	577.0	768.6	423.1	559.4	745.3	411.1	842.5	1,112.8	631
	1980	585.8	777.2	432.6		743.3	401.5	807.0	1,068.8	602
	1981	568.6	753.8	420.8	544.8	706.8	393.6	782.1	1,035.4	585
	1982	554.7	734.2	411.9	532.3	1	393.3	787.4	1,037.5	595
	1983	552.5	729.4	412.5	529.4	701.6	393.3	783.3	1,035.9	590
	1984	548.1	721.6	410.5	525.2	693.6	I	793.6	1,053.4	594
	1985	548.9	723.0	410.3	524.9	693.3	391.0	795.6	1,061.9	594
	1986	544.8	716.2	407.6	520.1	684.9	388.1	796.6	1,061.5	592
	1987	539.2	706.8	404.6	513.7	674.2	384.8	809.7	1,083.0	601
	1988	539.9	706.1	406.1	512.8	671.3	385.3	1	1,083.0	594
	1989	528.0	689.3	397.3	499.6	652.2	376.0	805.9		581
	1990	520.2	680.2	390.6	492.8	644.3	369.9	789.2	1,061.3	T .
	1991	513.7	669.9	386.5	486.8	634.4	366.3	780.7	1,048.8	575
	1992Pr.	504.5	656.0	380.3	477.5	620.9	359.9	767.5	1,026.9	568
	1993Pr.	514.0								
	1994		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.

Michigan rates for 1981-1985 have been revised based upon revisions to population estimates; see Technical Notes.

Figure 4.2 Michigan Live Birth Certificate

						F PUBLIC F		49			
	LF			. (CATE O	F	121		FILE NUMBER	_
	CF	(FIRS	CYNOLIS		LIVE	BIRTH			(LAST)	<u> 16973</u>	<u>პ</u>
ſ	1 CHILD - NAME	(FIRE	50)						(CA31)		
CHILD	2. SEX 34	(SPECIFY)	r - SINGLE, TWIN, TRIPLET.	ETC 3t	2NO, 3RD.	GLE - BORN 1ST. ETC. (SPECIFY)	4a. DATE	OF BIRTH (Month.	Oay, Year)	IN TIME OF BIR	ITH
PLACE	5a HOSPITAL NAME - (IF	NOT HOSPIT	AL GIVE STREET AND NU	MBER) St	CITY, VILLA	SE. OR TOWNSHI	P OF BIRTH	50 0	COUNTY OF B		М
	68 I CERTIFY THAT THE AND ON THE DATE S	ABOVE NAM	ED CHILD WAS BORN ALI	VE AT THE	PLACE AND	TIME A	- Jee 0	ERTICIANS NAME A	L TITLE (print	or type)	ᅱ
CERTIFICATION		HATED ABO				1,0	E B				
	6c. NAME AND TITLE OF	ATTENDANT	IF OTHER THAN CERTIFI	R S	MAILING A	ORESS ATTE	(STRE	ET NO., CITY OR	VILLAGE, STAT	i. ZIP)	
	78 REGISTRAR'S SIGNATUR	RE	a 78			PA RECEIVED	BY LOCAL F	EGISTRAR - (Month.	Day. Year)		
	8a MOTHER'S NAME (FIR	ŠT. MIDDLE,		N N	8b. SOCIAL S	ECURITY NUMBER	8c. STATE	OF BIRTH - NAME TRY IF NOT USA	8d DATE O (Month.	F BIRTH Dav. Year)	
MOTHER	8e MOTHER - SURNAME BE FIRST MARRI	FORE 81. F	RESIDENO Check one box	and specify	0		8g. COUNT	Y	8h. STATE		\dashv
BY AUTHORITY ACT 368, P.A. 1978			INSIDE CITY OR VILL	IGE OF							
FATHER	9a. FATHER'S NAME (FIRS	T, MIDDLE,		91	SOCIAL SEC	URITY NUMBER	9c. STATE COUNT	OF BIRTH - NAME RY IF NOT USA	9d DATE OF (Month.	BIRTH Day, Year)	
8213 (11- 89) \	10s. I CERTIFY THAT THE	PERSONAL II	NFORMATION PROVIDED ON GE AND BELIEF	THIS CERT	IFICATE IS CO	RRECT 106	THE PARENT	S) REQUEST THAT P TO THE SOCIAL SE SECURITY NUMBE	NFORMATION	ON THIS BIRTH	\exists
WIDEH		Y KNOWLED	GE AND BELIEF				OF A SOCIAL	SECURITY NUMBE	R AND CARD	, FOR ISSUANCE	
	SIGNATURE. (PARENT OR OTHER INFO	RMANT)									_
			ONFIDENTIAL I	NEODN	ATION 1	FOR PURI	IC HEAT	TH USE O	NI Y		
1	11 ANCESTRY - Mexican, I American, Chicano, oth	Puerto Rican	. Cuban Central or South			ndian, Black, Whi onality i.e. Chine: (Specify below)		(Specify onl	13 EDUCATION Ingliest grant	e completed)	
	American, Chicano, oth English, French, Finnish	h, etc (Spec	city below)	Asia	n Indian, etc.	(Specify below)		Elementary 'Second	ary (0 12) Co	Hege (1.4 or 5	•)
MOTHER	110			12a.				13a			\dashv
FATHER	116	2		125			CYAY NO	136.			_
	14 EXPECTED SOURCE OF FOR MEDICAL SERVICE (Private Insurance, Medical Service)	S caid, etc.)	15 MOTHER'S MAILING AD	DHE22 (21K	EEI NUMBER.	CITY OR VIELAGE	, SINIE. ZIF	,			
	16a MEDICAL RECORD NU	MRFR	66 MEDICAL RECORD NUI	MBFR	117 DATE	LAST NORMAL N	IENSES [18	MONTH OF PREGREE	ANCY 119	TOTAL PRENATA	IAI
	OF MOTHER		OF CHILD		BEGA	N (Month, Day, 1	(691)	PRENATAL CARE	BEGAN	VISITS	
MEDICAL AND HEALTH	20 LIVE BIRTHS (Do not include this Ch	(Spo	OTHER TERMINATIONS ntaneous and induced at time after conception)			RED PRIOR TO C			22	ATTENDANT AT BIRTH	٦
INFORMATION	20a NOW LIVING 20b NOW		ing site conception	ماريخ	7 1	1, 12	•			мо ро	
	Number Number	Numi	er	21b INFAN	TRANSFERRE		23	INFANT ADMITTED		CSMIN	0.11.0
	None None 20c DATE OF LAST LIVE		DATE OF BAST OTHER	૽ૺ૽૽ૺ	127 }	YES	□ NO	TO NICU?		URSE NURSE	
	BIRTH (Mo. Year)		TERMINATION (Mo Vear)	3 7. 1	masse of fac	anty transferred to				IDWIFE OTH	HER
	24 BIRTHWEIGHT	25 ES7IM	ATED WEEKS	26 APGAR	SCORE	27 PLACE OF B	IRTH	TYES [NO.	11 11	-
	(Specify unit)	GESTA	ATED WEEN		5 MIN	Free	standing (Center	Office Res	dence	Other (Specify	r)
28 MEDICAL RISK FA	ACTORS FOR THIS PREGNANC	ΣΥ [31 COMPLICATIONS	OF LABOR	AND/OR DELIV	YERY		RENT CONGENITAL	ANOMALIES ()F NEWBORN	
(Check all that a) America (Hct - 30 Hgt Cardiac disease	b · 10)	01 🗀	(Check all that a) Febrile (> 100° F or Meconium, moderate to Premature rupture of	38° C)		01 E 02 E	Anencepha Spina Biti	da/Meningocele		01 L: 02 L:	
Acute or chronic lung Dubetes Genital heroes		02 03 04 05	Premature rupture of Abruptio placenta Placenta previa Other excessive bleedi		> 12 hours)	03 11 11 11 11 11 11 11 11 11 11 11 11 11	Hydroceph Microceph	aius alus		03 [] 04 []	1
Hydramnios Oligohydrai Hemoglobinopathy Hypertension chronic	mnias	05 [] 06 [] 07 [] 08 []	Other excessive bleeds Seizures during labor Precipitate labor (> 3 Prolonged labor (> 20	ng hours)		06 D 07 D 08 D	(Specify	tral nervous system		05 □	:
Hypertension pregnance Enampsia Incompetent cervis		10 [Prolonged labor (> 20 Dysfunctional labor Breech Malpresentation	hours)		09 10 11 11 12 12		formations ulatory, respiratory, a	nomalies	06 L	
Previous intant 4000	- grams mail for gestational-age infant	12 U 13 U 14 U	Cephalopelvic dispropo Cord prolapse Anesthetic complication	tion			(Specify Rectal at	esia/stenosis		07 L. 08.3	
Rh. Sensitization Uterine bleeding None		15 [] 16 [] 00 []	Fetal distress None			14 E 15 E 00 E	Tracheo-e- atresia	iopnageal fistula Eso ele/Gastroschisis	phageal	091	1
Other (Specify)	TORS FOR THIS PREGNANCY	17 🗆	Other (Specify)	WERV 10		16 🗆		irgintestinal anomali	er.	1113	
Tabucco use during p	pregnancy Yes [No.1.]		32 METHOD OF DEL Vaginal Vaginal birth after pre				Maltormed Renal age	l genitalia nesis		12 (J 13 (J	:
Average number cas Alcohol use during p	garetles per day uregnancy Yes.↓ No.↓		Primary C-section Repeat C-section Forceps			02 III 03 III 04 III 05 III	(Specify				
Average number of	pregnancy	lbs	33 ABNORMAL COND	ITIONS OF	THE NEWBOR	06:0	Club foot	y, Syndactyly: Adactyly		15 U 16 U 17 U	
30 OBSTETRIC PROC	EDURES (Check all that apply	y)	(Check all that as Anemia (Hct · 39/Hbg Birth injury	13)		01 G 02 G	Otner mu	atic hernia sculoskeletal integum		18 🗆 s	
Ammogentesis Electronic fetal monito Induction of labor	Some	01 LI 02 LI 03 LI	Fetal alcohol syndrome Hyaline membrane dis	ease RDS		03 🖂 04 🖂	(Specify) Down s_syndrome		19 LJ 20 LJ		
Stimulation of latter Tocolysis Ultraspund		04 Li 05 t.i 06 ()	Meconium aspiration s Assisted ventilation 3 Assisted ventilation 3 Seizures	0 min		010000000 040000000 050000000	Other chr	omosomal anomalies		21 0	
None		00 Li	None				None	Caar ful		00 <u>(</u>	
Other (Specify)		07 🗀	Other (Specify)			09 🗆 📗	Other (Specify)		22 ∟	

Figure 4.3 Michigan Fetal Death Certificate

	•			OF PUBLIC HE				_
			TYPE OR PRIN					
FETUS	1a. DATE OF DELIVERY (Month. Day. Year)	TIME 1c. SEX OF FETUS 1 MALE 2 FEMALE INDETERM	İ	T OF FETUS 1e. ES	TIMATED WEEKS STATION WEEKS		AT DELIVERY 3 NURSE 5 4 MIDWIFE	NURSE-MIDWIFE OTHER (SPECIFY)
MOTHER	2a. RESIDENCE - STATE, IF OUTSIDE USA ENTER COU!	25. RESIDENCE - CO	UNTY	2c. RESIDENCE -		F		24. ZIP CODE
	3 ANCESTRY - Meascan, Puerto Rican Cuban, Central or South American, Chicano, other Hispanic, Alro-American, Arab, English, French, Franch, etc. (Sovicity below)	4. RACE - American Indian, Black, Whote, etc. If Asian, give automatry se. Chinese, Filipino Asian Indian, etc. (Specify Delo		5. EDUCATION by highest grade con econdary Coll (1-4 o	pleted)	OCCUPATION AT (Worked d	ND BUSINESS/INDUSTR furing tast year) Business/Indust	— " James"
MOTHER	3a	48.	5a.		797		6b.	7a.
FATHER	3b	MENT 9. MOTHER TRANSF	ERRED PRIOR TO	DELIVERY!		A Lorent Land	ity transferred from:	
	8. EXPECTED SOURCE OF PAY FOR MEDICAL SERVICES (Private Insurance, Medicaid,	etc.)	For The		NORMAL MENSES			
MEDICAL AND PREGNANCY HISTORY	LIVE BIRTHS	PREGNANCY HISTORY Complete each segion (And NATIONE Of Induced (or Vehicleption)	<u></u>	Single, Twin, Triple		IF NOT SINGLE BIRT	H - Born First, Second,
INFORMATION	,10a NOW LIVING 10b. NOW	Sorry Jog Jos por April	this letus)	(Specify)			Third, etc. (Specify)	
	None DATE OF LAST LIVE BIR	None None	T OTHER	14a. MONTH OF BEGAN - Fi	PREGNANCY PRENA rst, Second, Third, etc		o, PRENATAL VISITS - 1 (If none, so state)	otal Number
	(Mo., Year)		16. OBSTETRIC	PROCEDURES (Chec	k all that apply)		PARENT CONGENITAL (ANOMALIES OF FETUS
	15a MEDICAL RISK FACTORS FOR THIS PREGNANCY (Check all that apply) Anemu (het < 30/Hgb. < 10)		Electronic testar induction of labo Simulation of labo Simulation of labo Simulation of labo Simulation of labo Simulation of labo Simulation of labo Simulation of labo Simulation of labo Simulation of labo Simulation of labo Simulation of labo Simulation of labo Simulation of labo Simulation of labo Simulation of labo Simulation of labo Simulation of labo Simulation of labo Simulation of laboration of la	F. or 38" C)	00 00 00 00 00 00 00 00	Spina B hydroce of the control of th	india/Memispecie india/Memispecie phalus pha	05
	Causing fetal death a. DUE TO (OR AS A CONSEQUENCE OF): Specily Fetal or Material D. DUE TO (OR AS A CONSEQUENCE OF): Specily Fetal or Material Fetal and/or material conditions.							
	if any, going rise to the immediate cause(s), saling the underlying cause last PART II Other significant con-	e c. ditions of fetus or mother contrib	uting to felal death	but not resulting in the	ne underlying cause	gwen in Part I.	21. FETUS DIED BE LABOR OR DELIV	FORE LABOR, DURING FERY, UNKNOWN (Specify)
PLAC	22a HOSPITAL WHERE FET GIVE ADDRESS OF PE	US WAS DELIVERED (IF NOT RSON COMPLETING REPORT)	HOSPITAL — 2	2b. CITY, VILLAGE, C	OR TOWNSHIP OF D	ELIVERY 22c	COUNTY OF DELIVER	RY
B-35 1/69 AUTHORITY Act 368 PA	ſ	MPLETING REPORT (TYPE OR	PRINT)		24. DATE REPORT (Month, Day, Y	COMPLETED (car)	25. DATE REPORT DEPARTMENT	RECEIVED BY Month, Day, Year)

Figure 4.4 Michigan Death Certificate

	LF	TA	STATE OF MICH DEPARTMENT OF PUBLIC	LIFALTH.	FILE NUMBER		
TYPE /PRINT	CF		CERTIFICATE OF		187597		
TYPE/PRINT IN PERMANENT BLACK INK	1. DECEDENT'S NAME (First, Middle,	Last)		2. SEX	3 DATE OF DEATH (Month, Day, Year)		
, [DER 1 YEAR 4c. UNDER		(Month, Day, Year) 6. COUNTY	OF DEATH		
	(Years) MONTHS		IUTES				
DECEDENT	7a. LOCATION OF DEATH (Enter place HOSPITAL OR OTHER INSTITUTE			mer. Room, DOA (Specify)	Y, VILLAGE, OR TOWNSHIP OF DEATH		
	8 SOCIAL SECURITY NUMBER	9a. USUAL OCCUPA' working life. Do n	TION (Give kind of work done du ot use retired)	96. KIND OF BUSI	INESS OR INDUSTRY		
TUTION	10a. CURRENT RESIDENCE - 10b. CO STATE	DUNTY 10c. LOCALY	TY (Check one box and specify, ISIDE CITY OR VILLAGE OF WP. OF	10d. STREET AND	NUMBER		
DECEDENT PHYSICIAN OR INSTITUTION	10e. ZIP COOE 11. BIR Stat	THPLACE (City and le or Foreign Country)	ARITAL STATUS - Married, lever Married, Widowed, worcad (Specify)	SURVIVING SPOLES OF THE THE MAIN	14 WAS DECEDENT EVER IN U.S. ARMED FORCES? (Specify Yes or No)		
_{ნბ}	15. ANCESTRY – Mexican, Puerto Ricar American, Chicano, other Hispanic, English, French, Finnish, etc. (Spec		6. RACE - American Indian, Blis If Asian give bishingtony in Eugenbol Asian Indian, etc. (S	Charge Second			
PARENTS	18 FATHER'S NAME (First, Middle, Li	5 15 15		THER'S NAME (First, Middle, Surname be			
INFORMANT	20a INFORMANT'S NAME (Type/Prin	67 M.	MAILING ADDRESS (Street and	Number or Rural Route Number, City or Vi			
1	21. METHOD OF DISPOSITION – Bun Removal, Donation, Other (specif	Cremation . P.Z.s. PLACE	E OF DISPOSITION (Name of Co her place)	emetery, Crematory, 22b. LOCATIO	ON - City or Village, State		
DISPOSITION	23. SIGNATURE OF FUNERAL SERVICE LICENSEE 24. LICENSE NUMBER (of Licensee) 25. NAME AND ADDRESS OF FACILITY						
·)						
ſ		ries, or complications that caused larlure. List only one cause on ea-	the death. Do <u>NOT</u> enter the ch line.	mode of dying, such as cardiac or res	Approximate Interval Between Onset and Death		
	IMMEDIATE CAUSE (Final disease or condition ————————————————————————————————————	DUE TO (OR AS A CO	ONSEQUENCE OF).				
	Sequentially list conditions, IF ANY, leading to immediate cause. Enter UNDERLYING	DUE TO (OR AS A C	ONSEQUENCE OF)				
	IF ANY leading to immediate cause. Enter UNDERLYING CAUSE (Onesase or injury that initiated events resulting in death) LAST	DUE TO (OR AS A C	ONSEQUENCE OF).				
CAUSE OF DEATH	PART II Other significant conditions		iting in the underlying cause g	ven in Part i 27a. WAS AN AUTC PERFORMED? (Yes or No)	DSPY 276 WERE AUTOPSY FINDINGS AVAILABLE PRIOR TO COMPLETION OF CAUSE OF DEATH? (Yes or No)		
Ì	28 ACTUAL PLACE OF DEATH (Horr Home, Hospital, Ambulance) (Spe	ne, Nursing 29 WAS CASE REFE ecity) 29 EXAMINER? (Spi	RRED TO MEDICAL 31a. (Check one	The case reviewed and determine On the basis of examination and of	ed not to be a medical examiner's case.		
		dge, death occurred at the time, date	. 4-	at the time, date and place and	ed not to be a medical examiner's case, investigation, in my opinion death occurred due to the cause(s) and manner stated.		
	Signature and Title) Signature and Title) Signature and Title) Signature and Title)	ey. Yr) 30c. TIME OF DEAT	THER (Type or Print)	BID. DATE SIGNED (Mo. Day, Vr.)	31c. CASE NUMBER		
CERTIFIER	SUC NAME OF ATTENDING	M 00-	- 14 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		M. F.		
	32a. NAME AND ADDRESS OF PERS	- C - Yes 1848	N 500				
MEDICAL	33a ACC SUICIDE, HOM, NATURAL OR PENDING INVEST. (Specify)	336 DATE OF INJURY (Mo., Day,	Y/J ^ 33c. TIME OF INJURY	334 DESCRIBE HOW INJURY OCCUR			
EXAMINER	33e INJURY AT WORK (Specily Yes or No)	331. PLACE OF INJURY - At home office to	ne, farm, street, factory, ouilding, etc. (Specify)	33g. LOCATION - Street or R F D No.	City, Village or Twp. State		
B-36 Rev 1/89	342 REGISTRAR'S SIGNATURE			34b. DATE FILED (Month, Day, Year	,		

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 prenounced 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.

Except to signature, spaces for blank must be completed by typewriter

¢	207
	-
C	0
000	7
c	3
C	2
	J
7	₹
2	₹
•	₹
*	-
7	Э
•	
- 2	5
	-
	_
- (0
1	2
-	3

Figure 4.5 Michigan Marriage License

DATE OF APPLICATION Agringe	Ticenae .	
DATE CERTIFICATE FICED		0166087
State of	Michigan	
To any person legally authorized to solen	nnize marriage in tr	le State of Michigan,
Marriage must be solemnized In the State of Mic	<i>higan</i> on or before	DATE
betw	reen	
FULL NAME OF MALE (FIRST, MIDDLE, LAST)	FULL NAME OF FEMA	LE (FIRST, MIDDLE, LAST)
Total Maria Control of the Control o		RST MARRIED, IF DIFFERENT
	LAST NAME BEFORE FI	KST MARRIED, IF DIFFERENT
PRESENT AGE DATE OF BIRTH	PRESENT AGE	DATE OF BIRTH
DESIDENCE NO. STREET	RESIDENCE NO.	STREET
RESIDENCE NO.		
CITY, STATE, AND ZIP CODE	CITY STAT	E, AND ZIP CODE
RESIDENCE COUNTY NUMBER OF TIMES PREVIOUSLY MARRIED	RESIDENCETCOUNTY	NUMBER OF TIMES PREVIOUSLY MARRIED
		- CITY AND STATE
BIRTHPLACE - CITY AND STATE	BRTHPLACE	- CITY AND STATE
FATHER'S FULL NAME	FATHER	'S FULL NAME
	MOTHER'S FULL NA	ME BEFORE FIRST MARRIED
MOTHER'S FULL NAME BEFORE ERST MARRIED	11077121 0 1 000 1111	
FATHER'S BIRTHPLACE MOTHER'S BIRTHPLACE	FATHER'S BIRTHPLACE	MOTHER'S BIRTHPLACE
An affidavit has been filed in this office by which it	appears that said statem	ents are true. This marriage
An affidavit has been flied in this office by which to license authorizes the marriage of the parties name authorized to perform a marriage ceremony under the	d above within the State	of Michigan by any person
In witness whereof, I have signed and sealed these presents, this	day of	19;
		COUNTY
cou	NTY CLERK	DEPUTY CLERK
		DEPOTY CECIM
	A AM /	
*Certificate	of Marriage	
	of Marriage	
Between Mr.	and M	
Between Mr.	and M	
Between Mr. I hereby certify that, in accordance with the abo	and M	rein mentioned were joined ir
I hereby certify that, in accordance with the about	and M	rein mentioned were joined ir
Between Mr. I hereby certify that, in accordance with the abo	and M	rein mentioned were joined ir
I hereby certify that, in accordance with the about	and M ove license, the persons he , county of A.D.	rein mentioned were joined ir, MICHIGAN 19, in the presence o
Between Mr. I hereby certify that, in accordance with the about marriage by me, in	and M ove license, the persons he , county of A.D.	rein mentioned were joined ir
Between Mr. I hereby certify that, in accordance with the about marriage by me, in	and M and M persons he , county of A.D.	rein mentioned were joined in , MICHIGAN,
Between Mr. I hereby certify that, in accordance with the about marriage by me, in	and M and M persons he , county of A.D.	Trein mentioned were joined in , MICHIGAN, 19, in the presence of the of witness

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 Michigan Divorce Record

			ORD OF		
		DIVORCE OR ANNULMENT MICHIGAN DEPARTMENT OF PUBLIC HEALTH			Court Case Number
					County Circuit Court
	State File Number	ву антопту	of MCL 333.2813.	<u> </u>	County Circuit Court
_			O Harbards Blake	1-4-	
1.	Husband's Name First, Middle, La	st	_ 2. Husband's Birtho	ate	Month, Day, Year
3.	Husband's ResidenceCity, Village or	Township	County		State
	Sky, thinge of	, and	555. 1.7		
1	Husband's Birthplace		_ 5. Number of this	Marriage	
-	State or Foreign	Country	_ 5. Number of this	Wallage	First, Second, etc. (Specify)
6.	Wife's NameFirst, Middle, Last		_ 7. Wife's Birthdate		Month, Day, Year
				.4	
8.	Wife's Last Name Before First Married			<u> </u>	
_					
9.	Wife's Residence City, Village or	Township	4 County 9	<u> </u>	State
		A	11. A 10.		
10.	Wife's BirthplaceState or Foreign Co		1 Number of this	Marriage	First, Second, etc. (Specify)
	State or Foreign Co	Las for the			Frist, Second, etc. (Specify
12.	Place of this MarriageCity. wile	Township	County		te or Foreign Country
		14. [Date Couple Last Resided		
13.	Date of this Marriage Month, Day, Year	i	n Same Household	Check If Not Separated	Month, Day, Year
	month, buy, real				, , ,
15	Number of Minor Children in Household at Se	naration Date (Filin	o Date if Not Senarated) Check If	
	Transcr of minor officer in Floaderiola at oc	paration Date (1 iii		None	Number
16.	Plaintiff 17. Plaintiff's	Attorney	Name (Type or Print)		Bar Number
18.	Attorney's Address			State	ZIP Code
	Number and S	treet	City	State	Zir Code
				-	
	20. Nun	nber of Minor Chil	dren whose		
19. Judgement of Divorce/Annulment (Specify) Physical Custody was Awarded to: Husband Number					_ Joint Other
	Divorce/Annulment (Specily)		No Chil		iaminei iamper
21	Ludgement Peccycled on	22 1			
41 .	Judgement Recorded on Month, Day, Year		certify that this Divorce	was granted on .	Month, Day, Year
23.	Certifying OfficialSignatur	re .	Title		Date Signed
	Signatur	-	THE		