1973

# Michigan Health Statistics

Michigan Department of Public Health



### SYMBOLS USED IN TABLES

Data not available	
Category not applicable	000
Quantity zero	<del>-</del>
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# ERRATA (ANNUAL STATISTICAL REPORT 1973) STATISTICAL SERVICES SECTION MICHIGAN DEPARTMENT OF PUBLIC HEALTH LANSING, MICHIGAN 48914

Please replace Table 1.13 Page 16 with the attached Table 1.13

Please replace last line of Table 1.14 (Michigan) Page 16 with attached last line of Table 1.14 (Michigan)

Please replace Table 1.15 Page 17 with the attached Table 1.15

TABLE 1.13 - Total Live Births by Live Birth Order, Michigan Residents, 1963 and 1973.

LIVE BIRTH ORDER	NUMB	ER OF BIRTHS	PERCENT		
	1963	1973	1963	1973	
FIRST BIRTH SECOND BIRTH THIRD BIRTH FOURTH BIRTH FIFTH BIRTH OR GREATER NOT STATED	44,069 40,433 33,243 23,913 37,101 112	57,411 43,094 21,102 9,752 9,789 402	24.6 22.6 18.6 13.4 20.7 0.1	40.6 30.4 14.9 6.9 6.9 0.3	
TOTAL	178,871	141,550	100.0	100.0	

TABLE 1.14 First Births Michigan and United States Residents, 1963-1973 (Last Line)
1973 Michigan - First Births 57,411 and Percent of All Birth 40.6

TABLE 1.15 - Total Live Births by Live Birth Order and Age of Mother, Michigan Residents, 1973

LIVE BIRTH		AGE OF MOTHER						
ORDER	LESS THAN 20 YEARS	20-24 YEARS	25-29 YEARS	30-39 YEARS	40 OVER YEARS	N/A	TOTAL	MEDIAN AGE
FIRST BIRTH SECOND BIRTH THIRD BIRTH FOURTH BIRTH FIFTH BIRTH OR GREATER NOT STATED	22,592 4,860 738 94 6	22,764 19,505 6,455 1,824 588	9,779 14,556 9,060 3,929 2,413	2,191 4,074 4,726 3,718 5,922	74 95 121 187 857	11 4 2 - 3	57,411 43,094 21,102 9,752 9,789	21 24 26 28 33
TOTAL	28,377	51,284	39,845	20,683	1,339	22	141,550	24

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#### Introduction

The 1973 edition of Michigan Health Statistics is a statistical summary of vital events for calendar year 1973. 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 1973, some 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 relating to where the event occurred rather than the residence status of the party or parties involved. Divorces which occurred in Wayne County in 1973 had not been reported when this report was prepared and thus are not included in this report.

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 residence tabulations pertaining to Michigan residents. This report includes all such out-of-state certificates received prior to June 1, 1974 and all in-state certificates and records received prior to April 1, 1974. Although a few records for calendar year 1973 were received after these filing dates, their exclusion from this report is statistically insignificant.

The 1970 edition of Michigan Health Statistics contained a complete section devoted to population characteristics. Similar data are not available for 1973 and thus the 1973 edition of Michigan Health Statistics does not have a section on population. The reader is referred to the 1970 edition for detailed population characteristics and to the reference appendix of this edition for county and state population estimates.

The report is composed of the following sections and appendices:

1. Natality Section, 2. Mortality Section, 3. Marriage and Divorce Section, 4. Reference Appendix

Any 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 of Planning and Evaluation. The Office will make every attempt to comply with such requests within the limitation of staff and resources.

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#### Technical Notes, Definitions, Rates and Ratios

- TOTAL BIRTHS-Live Births and Fetal Deaths
- 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.
- 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; the fetus shows no signs of life such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles.
- RESIDENCE—Usual place of residence for person to whom event occurred. For births and fetal deaths residence is defined as the mother's usual place of residence.
- OCCURRENCE—Place where the event actually occurred.
- MINOR CIVIL DIVISION—City, Village or Township
- RACE—Race for mother, father, or descendant is as stated on certificate. Race of child is determined from the race of the parents.
- GESTATIONAL PERIOD—N u m b e r of weeks elapsed between the first day of the last menstral period and date of delivery.
- BIRTH WEIGHT—Weight of fetus or infant at time of delivery (normally recorded in pounds and ounces).
- LOW-WEIGHT BIRTH—Birth wherein the birth weight is equivalent to 2,500 grams or less (approximately 5 lbs., 8 oz.).
- ILLEGITIMATE BIRTH—Birth wherein there is no marital tie between mother and father.
- LIVE-BIRTH ORDER—Order number is equal to number of previous live births plus current birth.
- INFANT DEATH—Death occurring to individual of less than 1 year of age.
- NEONATAL DEATH—Death occurring to individual less than 28 days of age.
- PERINATAL DEATH—Fetal death or a death under 1 week of age.
- UNDERLYING CAUSE OF DEATH—That condition giving rise to the chain of events leading to death.

- RELATED CAUSE OF DEATH—Condition other than the underlying cause of death which may have contributed to the death or was a noncontributory significant condition.
- MATERNAL DEATHS—Those deaths wherein the physician has designated a maternal condition as the underlying cause of death.
- CRUDE BIRTH RATE = No. of Resident Live
  Births divided by Total Resident Population ×
  1.000
- CRUDE DEATH RATE = No. of Resident Deaths divided by Total Resident Population  $\times$  1,000
- AGE-SPECIFIC BIRTH RATE = No. of Resident Live Births for a Specific Age of Mother divided by Total Female Population of Specific Age  $\times$  1,000
- FERTILITY RATE = No. of Resident Live Births divided by Total Female Population (15-44)  $\times$  1,000
- FETAL DEATH RATE = No. of Resident Fetal Deaths divided by Total Resident Live Births and Resident Fetal Deaths × 1,000
- FETAL DEATH RATIO = No. of Resident Fetal Deaths divided by Total Resident Live Births × 1,000
- ILLEGITIMACY RATIO = No. of Resident Illegitimate Births divided by Total Resident Live Births × 1,000
- LOW-WEIGHT BIRTH RATIO = No. of Low-Weight Births divided by Total Resident Live Births  $\times 1,000$
- INFANT DEATH RATE = No. of Infant Deaths divided by Total Resident Live Births × 1,000
- NEONATAL DEATH RATE = No. of Neonatal Deaths divided by Total Resident Live Births × 1,000
- PERINATAL DEATH RATE = No. of Perinatal Deaths divided by Total Resident Live Births and Resident Fetal Deaths  $\times$  1,000
- MATERNAL DEATH RATE = No. of Maternal Deaths divided by Total Resident Live Births  $\times$  10,000
- AGE-SPECIFIC DEATH RATE = No. of Deaths in Specific Age Group divided by Total Resident Population in Specific Age Group × 100,000
- AGE-ADJUSTED DEATH RATE = \(\Sigma\) (Age-Specific Death Rates \(\times\) Proportion of Standard Population in Specific Age Group)

MARRIAGE RATE = No. of Persons Married divided by Total Resident Population  $\times$  1,000

DIVORCE RATE = No. of Persons (Divorces and Annulments) divided by Total Resident Population  $\times$  1,000

COMMUNICABLE DISEASE CASE RATE = No. of Reported Cases (Specific Communicable Disease) divided by Total Resident Population  $\times$  100,000

**SEX RATIO** = No. of Males divided by No. of Females  $\times$  100

RATES—Care should be taken in drawing specific inferences from comparisons of rates for different areas or different periods of time. Rates based on a small number of events or for a small area tend to exhibit considerable variation from time period to

time period or place to place. Excessive variation in rates not only negates their utility as estimators of the probability of an event occurring but also their usefulness for comparative purposes. Also, one should recognize the limitations of using unadjusted rates in attempting to attribute rate differences to particular factors. For example, one should not attempt to state that there was a significant difference in rates for two geographic areas for arteriosclerosis 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 compounding 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. Inadequacies in determining the gestational age of the fetus may account for some underreporting of fetal deaths.

#### 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.

# NATALITY SECTION I

# Natality An Overview 1973

TOTAL BIRTHS	143,232
TOTAL RESIDENT LIVE BIRTHS	141,550
TOTAL RESIDENT FETAL DEATHS	1,682
CRUDE BIRTH RATE	15.6
FETAL DEATH RATIO	11.9
FERTILITY RATE	73.2
ILLEGITIMACY RATIO—LIVE BIRTHS	143.4
ILLEGITIMACY RATIO—FETAL DEATHS	225.3
FIRST ORDER BIRTHS (PERCENT OF TOTAL LIVE	
BIRTHS)	39.9
NO PRENATAL CARE RATIO	10.5
NONWHITE BIRTHS (PERCENT OF TOTAL LIVE	
BIRTHS)	18.8
MEDIAN AGE OF MOTHER (LIVE BIRTHS)	24
MEDIAN AGE OF MOTHER (FETAL DEATHS)	24

Between 1900 and 1973, the number of total births occurring each year varied considerably. This pattern has not been totally consistent for the two component parts (live births and fetal deaths) of deliveries. The smallest number of live births recorded this century was 43,221. This occurred in 1901. The greatest number was 208,488 in 1957. The smallest number of fetal deaths was 1,325 (recorded in 1900) and the greatest number was 3,834 (recorded in 1927). Figures 1.1 and 1.2 portray the changes that have taken place in the number of live births and fetal deaths recorded each year since 1900. Since 1957, excepting the year 1970, there has been a steady decline in the number of resident live births. The number reported for 1973 is just slightly above the number recorded for 1946.

Another view of the changing pattern in the total births may be obtained through the examination of changes in the crude birth rate and the fetal death ratio. The crude birth rate has ranged from a low of 15.6 in 1973 to a high of 27.4 in 1956. The fetal death ratio has ranged from a low of 11.9 in 1971 to a high of 43.5 in 1905.

Figure 1.3 is a graphic portrayal of trends in live birth rates and fetal death ratios for Michigan since 1900. As can be seen quite clearly from the graph, birth rates display a bimodal pattern with maximum values in 1916-1917 and 1956 whereas fetal death ratios have declined more or less steadily from the very high levels of the late 1920's.

Crude birth rates rose steadily during the period from 1900 - 1920. This period was also marked by a significant growth of heavy industry in the state. During the 1920's, however, the crude birth rate started to decline, finally troughing out during the early mid-1930's. As Michigan's economic viability returned during the late 1930's and early 1940's, the crude birth rate once again increased. Significant increases were observed in the years immediately following World War II and the rate finally reached

FIGURE 1.1-Live Births, Michigan Residents, 1900-1973

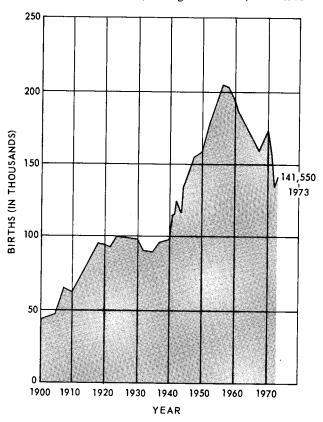
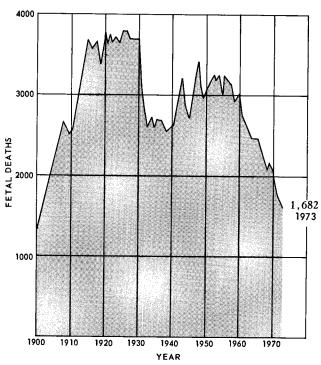


FIGURE 1.2—Fetal Deaths, Michigan Residents, 1900-1973



an all time high in 1956. Since that time, the rate has declined rather steadily with a slight upward trend noted in 1969 and 1970, and a downward turn noted 1971 through 1973.

From 1900 through 1940, Michigan's crude birth rate lagged behind that of the United States as a whole. By 1950 Michigan's crude birth rate exceeded that of the Nation and continues to do so.

The rapidly decreasing number of live births since 1957 coupled with an increasing population has resulted in the 1973 crude birth rate being the lowest ever recorded.

#### **FERTILITY**

It is impossible to determine from the crude birth rate whether changes are occurring as a result of a changing population structure or from other factors. Changes in the number of women in the prime child-bearing ages may have a significant impact upon the crude birth rate, thus presenting a somewhat distorted picture of fecundity for a given period of time or a given geographical area. A measure for analyzing changing birth patterns that is more precise than the crude birth rate is the fertility rate. Since the fertility rate relates the number of live births to the female population of childbearing age, more valid comparisons for various periods of time and various locations can be made.

A comparison of fertility rates for Michigan and the United States for selected years is presented in Table 1.2.

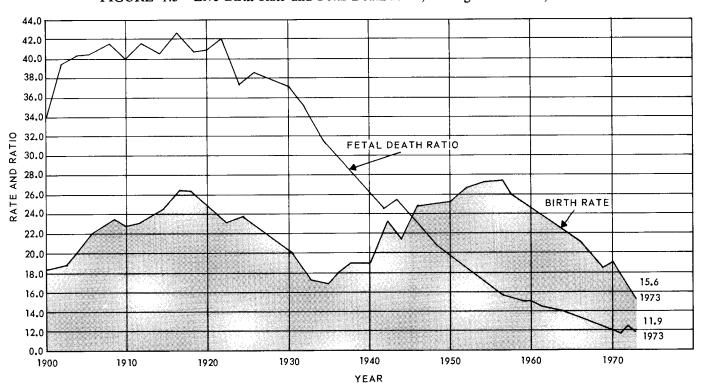
TABLE 1.1—Live Births and Crude Birth Rates, Michigan and United States Residents, Selected Years, 1900-1973

UNITED	STATES	YEAR	MICHIGAN		
LIVE BIRTHS	RATE	TEAR	LIVE BIRTHS	RATE	
N/A	N/A	1900	43,699	18.1	
2,777,000	30.1	1910	64,109	22.8	
2,950,000	27.7	1920	92,245	25.1	
2,618,000	21.3	1930	92,882	20.4	
2,559,000	19.4	1940	99,106	18.9	
3,632,000	24.1	1950	160,055	25.1	
4.257.850	23.7	1960	195,056	24.9	
4,268,326	23.3	1961	192,825	24.4	
4.167.362	22.4	1962	182,790	23.0	
4,098,020	21.7	1963	178,871	22.3	
4,027,490	21.0	1964	175,103	21.6	
3,760,358	19.4	1965	166.464	20.3	
3,606,274	18.4	1966	165,794	19.9	
3,520,959	17.8	1967	162,756	18.9	
3,501,564	17.5	1968	159,058	18.3	
3,600,206	17.8	1969	165,760	19.0	
3,731,386	18.4	1970	171,667	19.3	
3,555,970	17.2	1971	162,244	18.0	
3,258,411	15.6	1972	146,854	16.3	
3,141,000 Pr.	15.0 Pr	1973	141,550	15.6	

TABLE 1.2—Fertility Rates, Michigan and the United States, Selected Years, 1900-1973

FERTILITY RATE UNITED STATES	YEAR	FERTILITY RATE MICHIGAN
N/A	1900	78.5
126.8	1910	99.0
117.9	1920	111.6
89.2	1930	87.6
79.9	1940	78.9
106.2	1950	110.5
118.0	1960	123.1
87.9	1970	91.7
81.8	1971	84.7
73.4	1972	76.5
69.3	1973	73.2

FIGURE 1.3—Live Birth Rate and Fetal Death Ratio, Michigan Residents, 1900-1973



#### RACIAL COMPOSITION

During the eleven year period from 1963 through 1973, the racial composition of live births in Michigan was also changing. As can be seen from Table 1.3, the number of nonwhite live births increased by 33.6 percent from 19,957 in 1963 to 26,672 in 1973. It

should be noted, however, that nonwhite live births have decreased 4.0 percent between 1970 and 1973.

Inspection of Table 1.3 indicates that in 1963 non-white live births accounted for 11.2 percent of all live births to Michigan residents. In 1973, 18.8 percent of all live births were recorded as nonwhite.

<b>TABLE</b>	1.3—Live	Births	by	Race,	Michigan	Residents,
		196	53-1	973		

YEAR	TOTAL I	TOTAL BIRTHS		BIRTHS	NON-WHITE BIRTHS	
	Number	% of all Births	Number	% of all Births	Number	% of all Births
1963	178,871	100.0	158,914	88.8	19,957	11.2
1964	175,103	100.0	154,790	88.4	20,313	11.6
1965	166,464	100.0	145,784	87.6	20,680	12.4
1966	165,794	100.0	143,876	86.8	21,918	13.2
1967	162,756	100.0	139,721	85.8	23,035	14.2
1968	159,058	100.0	135,436	85.1	23,622	14.9
1969	165,760	100.0	140,222	84.6	25,538	15.4
1970	171,667	100.0	143,871	83.8	27,796	16.2
1971	162,244	100.0	134,165	82.7	28,079	17.3
1972	146,854	100.0	119,788	81.6	27,066	18.4
1973	141,550	100.0	114,878	81.2	26,672	18.8

#### AGE OF MOTHER

In 1973, 56.2 percent of the live births were to mothers age 24 or less. Only 0.9 percent occurred to women 40 or more years of age. The median age of the mothers was 24 years. Mothers of nonwhite infants were younger (median 22 years) than mothers of white babies. Approximately 67 percent of the nonwhite babies were born to mothers age 24 or less; whereas, only 54 percent of white babies were born to mothers 24 years of age or less. The difference is primarily the result of the large percentage of nonwhite live births to mothers age 15-19 (Table 1.4).

TABLE 1.4—Total Live Births and Percent Distribution by Age of Mother and Race of Child, Michigan Residents, 1973

	тот	A.T.	RACE OF CHILD					
AGE OF MOTHER	101	AL	WH	ITE	NONWHITE			
	No.	%	No.	%	No.	%		
Under 15 Years	569	0.4	201	0.2	368	1.4		
15-19 Years	27,808	19.6	19,383	16.9	8.425			
20-24 Years	51,284	36.2	42,108	36.7	9.176	34.4		
25-29 Years	39,845	28.2	34.625	30.1	5.220	19.6		
30-39 Years	20,683	14.6	17,476	15.2	3.207	12.0		
40 Years and Over	1,339	0.9	1,072	0.9	267	1.0		
Not Stated	22	0.0	13	0.0	9	0.0		
Total	141,550	99.9	114,878	100.0	26,672	100.0		
Median Age of Mother	24	000	24	000	22	000		

#### ILLEGITIMATE LIVE BIRTHS

In 1900, illegitimate live births for Michigan residents numbered 332 (an illegitimacy ratio of 7.6). By 1906 that ratio had more than doubled to 18.6. Then for more than 20% years the ratio fluctuated between 12.3 and 19.9 and it was not until 1933 that the ratio became greater than 20.0. By 1960 the ratio had reached 36.9. Between 1963 and 1973 the illegitimacy ratio increased from 49.0 to 143.4, an increase of 192.7 percent (Figure 1.4).

Table 1.5 presents a comparison of legitimate and illegitimate live births with respect to several social and health factors. From the table it can be seen that a higher percentage of illegitimate births are accompanied by complications of labor, complications related to pregnancy and complications not related to pregnancy. A greater percentage of mothers having illegitimate children in 1973 have had less than 9 years of education as compared to mothers having legitimate children (6.6 as compared to 2.7). A majority (56.4%) of illegitimate live births are to women less than twenty years of age. The corresponding figure for legitimate live births is 14.0 percent.

Mothers of illegitimate children tend to be somewhat younger than the mothers of legitimate children (Table 1.5). The median age of all mothers having

TABLE 1.5—Illegitimate Live Births by Selected Characteristics, Michigan Residents, 1973

	7	OTAL	ILL	EGITIMATE	LEGITIMATE	
SELECTED CHARACTERISTICS	LIVE BIRTHS	% OF TOTAL	LIVE BIRTHS	% OF ILLEGITIMATE	LIVE BIRTHS	% OF LEGITIMATE
Low-Weight Birth (2500 grams or less)	10,950	7.7	2,771	13.7	8,179	6.7
Mother's Age <20 Years	28,377	20.0	11,441	56.4	16,936	14.0
Mother's Education—8th Grade or <	4,648	3.3	1,330	6.6	3,318	2.7
Complications of Labor	20,575	14.5	3,302	16.3	17,273	14.2
Complications Related to Pregnancy	12,154	8.6	2,195	10.8	9,959	8.2
Complications Not Related to Pregnancy	3,559	2.5	637	3.1	2,565	2.1
Total	141,550	100.0	20,299	100.0	121,251	100.0

illegitimate births is 20 compared to a median age of 24 for all live births. The median age for nonwhite mothers who have illegitimate births is 20 compared to an overall nonwhite median age of 22. Both the median age of all mothers having illegitimate births and the median age of nonwhite mothers having illegitimate births has increased by one year over the median ages for 1970-1972.

Nonwhite mothers account for approximately 60 percent of all illegitimate births and it can be observed (Table 1.6) that young nonwhite mothers, in particular, have a greater proportion of illegitimate births.

Similar increases in illegitimacy ratios have been noted nationwide. Table 1.7 contains a comparison of illegitimate birth ratios for Michigan and the United States for the period 1963-1973.

TABLE 1.6—Illegitimate Live Births and Ratio by Age of Mother and Race of Child, Michigan Residents, 1973

			RACE OF CHILD					
AGE OF MOTHER	тот	AL	WHI	TE	NONWHITE			
	No.	Ratio	No.	Ratio	No.	Ratio		
Under 15 Years	527	926.2	169	840.8	358	972.8		
15-19 Years			4,686	241.8	6,228	739.2		
20-24 Years		114.2	2,214	52.6	3,641	396.8		
25-29 Years	1 ' .	46.7	686	19.8	1,175	225.1		
30-39 Years		50.9	420	24.0		197.4		
40 Years and Over		59.0	33	30.8	46	172.3		
Not Stated		*	5	*	5	*		
Total		143.4	8,213	71.5	12,086	453.1		
Median Age of Mother		000	20	000	20	000		

FIGURE 1.4—Illegitimate Live Birth Ratio, Michigan Residents, 1900-1973

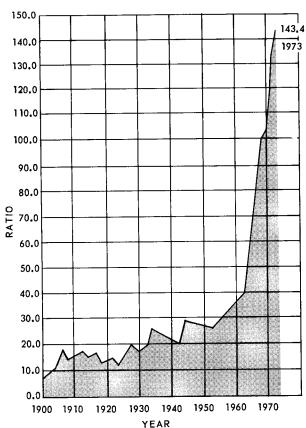


TABLE 1.7—Illegitimate Live Births and Illegitimacy Ratios, Michigan and United States Residents, 1963-1973

UNITED STAT	res		MICHIGAN		
NO. OF ILLEGITIMATE BIRTHS	EGITIMATE RATIO		NO. OF ILLEGITIMATE BIRTHS	RATIO	
259,400	63.3	1963	8,769	49.0	
275,700	68.5	1964	9.724	55.5	
291,200	77.4	1965	10.888	65.4	
302,400	83.9	1966	12,299	74.2	
318,100	90.3	1967	13,403	82.4	
339,200	96.9	1968	14,451	90.9	
360,800	100.2	1969	16,329	98.5	
398,700	106.9	1970	18,712	109.0	
401,400	112.9	1971	19.098	117.7	
403,200	123.7	1972	19.526	133.0	
N/A	N/A	1973	20,299	143.4	

#### **BIRTH WEIGHT**

The mean weight for all live births is 3,301 grams or approximately 7 lbs., 4 oz. The median weight is 3,333 grams or approximately 7 lbs., 5 oz. (Table 1.8). As was alluded to previously, birth weights among illegitimates are slightly lower. The median and mean birth weights for illegitimate births are respectively 3,145 grams (approximately 6 lbs., 15 oz.) and 3,203 grams (7 lbs., 2 oz.).

A subgroup of major importance when analyzing birth weight trends is the infant weighing 2,500 grams or less (approximately 5 lbs., 8 oz. or less) at birth. For a considerable length of time this was the criterion for defining a 'premature' infant. In recent years a broader definition which includes a consideration of the gestational period has come into use and births 2,500 grams or less are called low weight births.

The incidence of low weight births appears to be most significant among the young, the older, and the nonwhite mothers (Table 1.9).

TABLE 1.8—Live Births by Birth Weight and Legitimacy Status, Michigan Residents, 1973

WEIGHT AT BIRTH	LEGITIMACY STATUS							
WEIGHT AT BIRTH	TOTAL	LEGITIMATE	ILLEGITIMATE					
500 Grams or Less	228	172	56					
501-1000 Grams	632	441	191					
1001-1500 Grams	971	673	298					
1501-2000 Grams	2,058	1,505	553					
2001-2500 Grams	7,061	5,388	1.673					
2501-3000 Grams	24,686	19,549	5,137					
3001-3500 Grams	52,660	44,997	7,663					
3501-4000 Grams	38,921	35,174	3,747					
4001-4500 Grams	11,713	10,905	808					
4501 and Over	2,468	2,340	128					
Not Stated	152	107	45					
TOTAL	141,550	121,251	20,299					
Mean Weight	3,301	3,342	3,203					
Median Weight	3,333	3,365	3,145					

TABLE 1.9—Low Weight Resident Live Births and Rates By Age of Mother and Race of Child, Michigan Residents, 1973

	тот		RACE OF CHILD					
AGE OF MOTHER	101	IAL	WH	ITE	NONWHITE			
	NO.	RATE	NO.	RATE	NO.	RATE		
Under 15 Years	91	159.9	21	104.5	70	190.2		
15-19 Years		100.3	1,488	76.8		154.5		
20-24 Years	3,873	75.5	2,587	61.4	1,286	140.1		
25-29 Years	2,542	63.8	1,895	54.7	647	123.9		
30-39 Years		73.7	1,719	64.0	406	126.6		
40 Years and Over	,128	95.6	90	84.0	38	142.3		
Not Stated	1	*	1	*				
TOTAL	10,950	77.4	7,201	62.7	3,749	140.6		
Median Age of Mother	23	000	24	000	21	000		

#### PRENATAL CARE

In 1972, 1,485 resident live births (1.0%) occurred without the mother having had any prenatal care. These cases include only those where *no* prenatal care was specified. Those mothers who received no prenatal care are for the most part younger (median age of 21) mothers. Also the lack of prenatal care is disproportionately high among nonwhites. The relative percentage of nonwhites receiving no prenatal care is 4.5 times as large as among whites (Table 1.10).

A total of 102,887 (72.7%) of women having live births started their prenatal care prior to the fourth month of pregnancy. This is an increase over the 70.8 percent figure recorded for 1972. Most women had between 10 and 14 prenatal visits. In addition the second month of pregnancy was the most popular month for initiating prenatal care (Table 1.11).

Since 1970 there has been a small but steady increase in the percentage of women receiving medical care prior to the sixth month of pregnancy. In 1973 over 90.6 percent of women delivering live born received medical care prior to the sixth month (Table 1.12).

TABLE 1.10—Live Births With No Prenatal Care by Age of Mother and Race of Child, Michigan Residents, 1973

	RACE OF CHILD								
AGE OF MOTHER	TO	<b>TAL</b>	WH	ITE	NONV	NONWHITE			
	NO.	RATIO	NO.	RATIO	NO.	RATIO			
Under 15 Years	29	51.0	10	49.8	19	51.6			
15-19 Years	540	19.4	250	12.9	290				
20-24 Years	526	10.3	252	6.0	274	29.9			
25-29 Years	210	5.3	104	3.0	106				
30-39 Years	163	7.9	101	5.8	62	19.3			
40 Years and Over	17	12.7	12	11.2	5	18.7			
Not Stated	_	_	!			_			
TOTAL	1,485	10.5	729	6.3	756	28.3			
Median Age of									
Mother	21	000	22	000	21	000			
TOTAL Live Births	141,550		114,878		26,672	1			

TABLE 1.11—Live Births by Month Prenatal Care Began and Number of Prenatal Visits, Michigan Residents, 1973

				NUM	BER OF VI	SITS		
MONTH CARE BEGAN	TOTAL	NONE	UNDER 5	5-9	10-14	15-19	20 AND OVER	NOT STATED
TOTAL	141,550	1,485	8,760	38,869	74,307	11,956	2,535	3,638
No Care	1,485	1,485	_	<u> </u>	_	_	_	
1st Month	12,932		269	1,746	7,622	2,259	703	333
2nd Month	49,448	1 — 1	635	8,376	32,406	5,882	1,124	1,025
3rd Month	40,507	-	975	11,353	24,135	2,911	492	641
4th Month	16,266	-	1,090	7,493	6,739	597	135	212
5th Month	9,100		1,354	5,064	2,308	195	43	136
6th Month	5,024		1,352	2,845	697	54	19	57
7th Month	3,080		1,412	1,402	210	14	4	38
8th Month	1,697		1,159	452	64	5	2	15
9th Month	543		449	55	14	1	1	23
Unknown	1,468		65	83	112	38	12	1,158

TABLE 1.12—Percentage of Women Having Live Births Who Receive Medical Care Prior to the Sixth Month of Pregnancy, Michigan Residents, 1970-1973

YEAR	PERCENT	
1970	86.0	
1971	89.6	
1972	89.9	
1973	90.6	

TABLE 1.13—Total Live Births by Live Birth Order, Michigan Residents, 1963 and 1973

	NO. OF	BIRTHS	PERCENT		
LIVE BIRTH ORDER	1963	1973	1963	1973	
First Birth	44,069 40,433 33,243 23,913 37,101	56,525 42,545 20,828 9,638 9,666	24.6 22.6 18.6 13.4 20.7	39.9 30.1 14.7 6.8 6.8	
Not Stated	112	2,348 141,550	100.0	1.7	

BIRTH ORDER

As can be observed from Table 1.13, the relative distribution of Michigan resident live births by live birth order is changing considerably. In addition to the increase noted for first-order births an increase is also evident for second-order births. Decreases are evident for third-order, fourth-order and fifth-order or greater births. The largest decline, relatively speaking, occurred among fifth-order or greater births (a decrease from 20.7 percent in 1963 to 6.8 percent in 1973).

The relative increase in first-order births is not unique to Michigan. As can be observed from Table 1.14 the percentage of first-order births is increasing nationwide. Also the relative proportion of first-order births is higher for the United States as a whole (38.7 percent in 1971) than is the case for Michigan residents (37.2 percent in 1971).

As can be observed from Table 1.14, the frequency of higher-order births increases with the age of mother. The median age of mother among first-order births is 21, compared to a median age of 33 among fifth-order or greater births. The median age of all mothers is 24.

TABLE 1.14—First Births, Michigan and United States Residents, 1963-1973

UNITED STATES			MICHIGAN			
FIRST BIRTHS	% OF ALL BIRTHS	YEAR	FIRST BIRTHS	% OF ALL BIRTHS		
1,122,138	27.4	1963	44,069	24.6		
1,164,548	28.9	1964	46,172	26.4		
1,157,386	30.8	1965	48,660	29.2		
1,224,786	34.0	1966	55,100	33.2		
1,228,274	34.9	1967	55,409	34.0		
1,311,460	37.5	1968	52,147	32.8		
1,353,278	37.6	1969	56,497	34.1		
1,430,680	38.3	1970	64,222	37.4		
1,375,668	38.7	1971	60,413	37.2		
1.289.257	29.9	1972	57,477	39.1		
N/A	N/A	1973	56.525	39.9		

TABLE 1.15—Total Live Births by Live Birth Order and Age of Mother, Michigan Resident, 1973

	AGE OF MOTHER								
LIVE BIRTH ORDER	<20 YEARS	20-24 YEARS	25-29 YEARS	30-39 YEARS	40 AND > YEARS	N/A	TOTAL	MEDIAN AGE	
First Birth	22,196	22,399	9,683	2,162	74	11	56,525	21	
Second Birth	4,799	19,233	14,395	4,022	92	4	42,545	24	
Third Birth	732	6,372	8,937	4,665	120	2	20,828	26	
Fourth Birth	93	1,807	3,884	3,668	186		9,638	28	
Fifth Birth or >	6	581	2,383	5,845	848	3	9,666	33	
Not Stated	551	892	563	321	19	2	2,348	23	
TOTAL	28,377	51,284	39.845	20,683	1,339	22	141,550	24	

#### ATTENDANT AT BIRTH

Data in Table 1.16 reveals that 99.8 percent of the live births are attended by a physician either M.D. or D.O. Only seven live births were attended by a midwife.

#### CONGENITAL ANOMALIES

Only 1 percent of the live birth records indicated the presence of one or more congenital anomalies at the time of birth. The birth record may or may not contain information on anomalies noted after delivery and thus the 1 percent figure should be interpreted as the minimum percent of live born with malformations (Table 1.17).

#### FETAL DEATHS

In 1973 there were 1,682 resident Michigan fetal deaths. This is the lowest resident fetal death figure recorded since 1905. The 1973 crude fetal death ratio for Michigan was 11.9 (Table 1.18).

TABLE 1.18—Fetal Deaths and Fetal Death Ratios, Michigan Residents, 1900-1973

FETAL DEATHS	YEAR	FETAL DEATH RATIOS
1,325	1900	30.3
2,559	1910	39.9
3,770	1920	40.9
3,714	1930	37.6
2,602	1940	26.3
3,095	1950	19.3
3,008	1960	15.4
2,060	1970	12.0
1,923	1971	11.9
1,770	1972	12.1
1,682	1973	11.9

TABLE 1.16—Live Births by Type of Attendant, Michigan Residents, 1973

ATTENDANT	NUMBER	PERCENT
TOTAL	141,550	100.0
Physician M.D	119,335	84.3
Physician D. O	21,977	15.5
Registered Nurse	. 8	0.0
Physician's Assistant	_	_
Midwife	7	0.0
Husband	36	0.0
Other Attendant	48	0.0
No Attendant	35	0.0
Unknown	104	0.1

TABLE 1.17—Live Births by Presence of Congenital Anomalies, Michigan Residents, 1973

ANOMALIES RECORDED	NUMBER	PERCENT
TOTAL Yes	141,550 1,427 140,123	100.0 1.0 99.0

Further inspection of Figure 1.4 (page 14) reveals that the fetal death ratio remained at relatively high levels throughout the first 20-30 years of the century. In the 1930's significant declines were observed in the fetal death ratio. However, since the 1950's, declines in the fetal death ratio have been much more moderate.

A classification of fetal deaths by underlying cause of death is contained in Table 1.19.

Due to a relatively large number of deaths allocated to unspecific causes (e.g., 260 deaths were assigned to unknown causes in 1973) the reader should exercise caution in attempting to draw specific inferences regarding cause of death among fetal deaths.

Of 1,682 resident fetal deaths, only 95 or approximately 6.0 percent were reported as due to congenital malformations, 246 or approximately 15.0 percent were due to conditions attributable to the mother, and 187 (11.0%) were reported as due to problems with the pregnancy or delivery. Conditions of the placenta and conditions of the umbilical cord ac-

TABLE 1.19—Fetal Deaths by Cause of Death (Underlying) and Cause-Specific Ratios, Michigan Residents, 1973

ICDA LIST NO.	CAUSE OF DEATH	FREQUENCY	RATIO*
740	Anencephalus	29	20.5
741	Spina Bifida	4	2.8
742	Congenital Hydrocephalus	14	9.9
743	Other Congenital Anomalies of Nervous System	4	2.8
746	Congenital Anomalies of Heart	9	6.4
747	Other Congenital Anomalies of Circulatory System	3	2.1
748	Congenital Anomalies of Respiratory System	1	0.7
751	Other Congenital Anomalies of Digestive System	1	0.7
753	Congenital Anomalies of Urinary System	4	2.8
755	Other Congenital Anomalies of Limbs	1	0.7
756	Other Congenital Anomalies of Mus loskeletal System	cu-	2.1
758	Other and Unspecified Congenital Anomalies	6	4.2
759	Congenital Syndromes Affecting Multiple Systems	16	11.3
760	Chronic Circulatory and Genito- Urinary Diseases in Mother	3	2.1
761	Other Maternal Conditions Unrelated to Pregnancy	99	69.9
762	Toxemia of Pregnancy	86	60.8
763	Maternal Ante- and Intra-Partum Infection	58	41.0
765	Difficult Labor with Disproportion but no Mention of Abnormality of Pelvis	6	4.2
766	Difficult Labor with Malposition of Fetus	15	10.6
767	Difficult Labor with Abnormality of Forces of Labor	1	0.7
768	Difficult Labor with Other and Unspeci- fied Complications	7	4.9
769	Other Complications of Pregnancy and Childbirth	158	111.6
770	Conditions of Placenta	378	267.0
771	Conditions of Umbilical Cord	267	188.6
772	Birth Injury without Mention of Cause		2.1
775	Hemolytic Disease of Newborn without Mention of Kernicterus	43	30.4
776	Anoxic and Hypoxic Conditions not Elsewhere Classifiable	135	95.4
777	Immaturity, Unqualified	56	39.6
778	Other Conditions of Fetus or Newborn	12	8.5
779	Fetal Death of Unknown Cause	260	183.7

<sup>\*</sup> Ratios per 100,000 Resident Live Births.

counted for 645 or 38.0 percent of all fetal deaths. Immaturity (unqualified), other conditions of the fetus, and deaths from unknown causes accounted for 328 or approximately 20.0 percent of all fetal deaths.

It appears that the young, the older, and the non-white mothers have a greater risk for fetal mortality. The rates of fetal loss for the under-15 mother, the 40-and-over mother, and the nonwhite mother are considerably higher than those for other groups (Tables 1.20 and 1.21).

TABLE 1.20—Fetal Deaths, Live Births, and Fetal Death Rates by Age of Mother and Race of Fetus, Michigan Residents, 1973

AGE OF MOTHER AND RACE OF FETUS	FETAL DEATHS	LIVE BIRTHS	TOTAL BIRTHS	RATE PER 1,000 TOTAL BIRTHS
Under 15 Years	12	569	581	20.7
White	2	201	203	10.0
Nonwhite	10	368	378	26.5
15-19 Years	366	27,808	28,174	13.0
White	233	19,383	19,616	11.9
Nonwhite	133	8,425	8,558	15.5
20-24 Years	490	51,284	51,774	9.5
White	340	42,108	42,448	8.0
Nonwhite	150	9,176	9,326	16.1
25-29 Years	381	39,845	40,226	9.5
White	302	34,625	34,927	8.6
Nonwhite	79	5,220	5,299	14.9
30-39 Years	269	20,683	21,044	17.2
White		17,476	17,745	15.2
Nonwhite		3,207	3,299	27.9
40 and Over	42	1,339 1,072 267	1,401 1,114 287	44.3 37.7 69.7
Not StatedWhite	9	22 13 9	32 22 10	* *
TOTAL	1,682	141,550	143,232	11.7
White		114,878	116,075	10.3
Nonwhite		26,672	27,157	17.9

TABLE 1.21—Fetal Deaths by Age of Mother and Race of Fetus, Michigan Residents, 1973

. an anaim	RACE OF FETUS							
AGE GROUP	TOTAL	%	WHITE	%	BLACK	%	OTHER	%
Under 15	12	0.7	2	0.2	10	2.2	_	_
15-19		21.8	233	19.5	123	27.2	10	30.3
20-24		29.1	340	28.4	140	31.0	10	30.3
25-29	381	22.7	302	25.2	72	15.9	7	21.2
30-34	239	14.2	187	15.6	48	10.6	4	12.1
35-39	122	7.3	82	6.9	40	8.8		. —
40-44	55	3.3	38	3.2	16	3.5	1	3.0
45 and Over.	7	0.4	4	0.3	3	0.7	<u> </u>	
Not Stated	10	0.6	9	0.8	l —	l —	1	3.0
TOTAL	1,682	100.1	1,197	100.1	452	99.9	33	99.9
Median Age.	24	000		000	23	000	*	000

<sup>\*</sup> Not computed due to limited number of occurrences.

Among live births, the percentage of children weighing 5 lbs., 8 oz. or less at birth was 7.8 percent. The comparable percentage among fetal deaths was 58.6 percent. The distribution of birth weight by plurality for fetal deaths is presented in Table 1.22.

Illegitimate fetal deaths comprised 22.5 percent of all fetal deaths. Illegitimate ratios are particularly high among the young and the nonwhite. Table 1.23 presents a comparison of age specific fetal mortality rates by legitimacy status and Table 1.23 contains illegitimacy ratios for fetal deaths. Note that the fetal mortality rate is highest for those women under age

TABLE 1.22—Fetal Deaths by Fetal Weight and Plurality, Michigan Residents, 1973

WEIGHT	FETAL DEATHS		SINGLE DELIV- ER Y	TWIN DELIV- ERY	TRIPLET DELIV- ERY
500 Grams or Less		8.9	119	31	
501-1,000 Grams		27.1	279	25	2
1,001-1,500 Grams	182	37.9	168	14	_
1,501-2,000 Grams	178	48.5	162	15	1
2,001-2,500 Grams	170	58.6	159	11	
2,501-3,000 Grams	130	66.3	121	9	
3,001-3,500 Grams	156	75.6	154	2	
3,501-4,000 Grams	110	82.1	110		_
4,001-4,500 Grams	45	84.8	45		_
4,501-5,000 Grams	15	85.7	15		
5,001 and Over Grams	9	86.2	9		_
Not Stated	231	99.9	204	23	4
TOTAL	1,682	99.9	1,545	130	7

TABLE 1.23—Fetal Deaths, Live Births, and Fetal Death Rates By Age of Mother and Legitimacy Status, Michigan Residents, 1973

AGE OF MOTHER AND LEGITIMACY STATUS	FETAL DEATHS	LIVE BIRTHS	TOTAL BIRTHS	RATE PER 1,000 TOTAL BIRTHS
Under 15 Years	1	569	581	20.7
Legitimate		42	43	23.3
Illegitimate		527	538	20.4
15-19 Years	366	27,808	28,174	13.0
Legitimate	192	16,894	17,086	11.2
Illegitimate	174	10,914	11,088	15.7
20-24 Years	490	51,284	51,774	9.5
Legitimate	393	45,429	45,822	8.6
Illegitimate	97	5,855	5,952	16.3
25-29 Years	381	39,845	40,226	9.5
Legitimate	333	37,984	38,317	8.7
Illegitimate	48	1,861	1,909	25.1
30-39 Years	361	20,683	21,044	17.2
Legitimate	320	19,630	19,950	16.0
Illegitimate	41	1,053	1,094	37.5
40 and Over	62	1,339	1,401	44.3
	56	1,260	1,316	42.6
	6	79	85	70.6
Not Stated	10 8 2	22 12 10	32 20 12	* *
TOTAL	1,682	141,550	143,232	11.7
Legitimate Illegitimate	1,303	121,251	122,554	10.6
	379	20,299	20,678	18.3

TABLE 1.24—Illegitimate Fetal Deaths and Ratios\* by Age of of Mother and Race of Fetus, Michigan Residents, 1973

AGE GROUP	TOTAL	RATIO	WHITE	RATIO	BLACK	RATIO	OTHER**	RATIO
Under 15	11	916.7	1	500.0	10	1,000.0		_
15-19	174	475.4	73	313.3	97	788.6	4	400.0
20-24	97	198.0	28	82.4	67	478.6	$\frac{1}{2}$	200.0
25-29		126.0	15	49.7	33	458.3		
30-34	22	92.1	7	37.4	14	291.7	1	250.0
35-39	19	155.7	9	109.8	10	250.0	_	
40-44	6	109.1	4	105.3	2	125.0		_
45 and Over					_		_	
Not Stated		—	2	_	_	_ :	_	-
TOTAL	379	225.3	139	116.1	233	515.5	7	212.1

<sup>\*</sup> Ratio computed as=(No. of illegitimate fetal deaths/total fetal deaths) x 1,000

\*\* Includes race not stated.

15 or age 40 and over. However, only 4.2 percent of the fetal deaths occur in these groups. The women in age group (20-24) with the greatest number of fetal deaths (both legitimate and illegitimate) have the lowest fetal death rates. This is expected, but it should be noted that the high fetal death rates are associated with a small number of events.

Of the 1,682 fetal deaths recorded for 1973, 181 or 10.8 percent of the records indicated mothers reported no prenatal visits. The number of prenatal visits was not recorded on 162 (9.6%) of the records.

The month of pregnancy that prenatal care is started among women having stillbirths is most frequently the second month (Table 1.25). Of those reporting, a relatively large percentage (74.0%) had received care before the 6th month of pregnancy.

Since 1970, there has been a steady increase in the percentage of women having stillbirths who receive care prior to the 6th month of pregnancy (Table 1.26).

TABLE 1.25—Fetal Deaths by Month Prenatal Care Began and by Number of Prenatal Visits, Michigan Residents, 1973

		NUMBER OF VISITS						
MONTH CARE BEGAN	TOTAL	NONE	<5	5-9	10-14		20 AND OVER	NOT STATED
No Care	181	170		_	_		_	11
1st Month	146		27	37	47	19	4	12
2nd Month.	465		88	156	161	36	16	8
3rd Month.	361	_	102	124	107	13	11	4 5
4th Month.	177		75	40	47	9	1	5
5th Month.	96		50	30	13	2	1	_
6th Month.	65	_	50	8	5			2
7th Month.	27	-	17	10		—	_	_
8th Month.	19	-	12	6	l —	l —	-	1
9th Month.	136		4	4	8	1	_	119
Unknown	9	-	5	3	1			_
TOTAL	1,682	170	430	418	389	80	33	162

TABLE 1.26—Percentage of Women Having Still Births Who Received Medical Care Prior to the 6th Month of Pregnancy, Michigan Residents, 1970-1973

YEAR	PERCENT	
1970 1971 1972 1973	67.4 70.5 70.8 74.0	

# MORTALITY SECTION II

### **Mortality**

### An Overview 1973

RESIDENT DEATHS	78,522
CRUDE DEATH RATE	8.7
INFANT DEATHS	2,561
INFANT DEATH RATE	18.1
NEONATAL DEATHS	1,902
NEONATAL DEATH RATE	13.4
PERINATAL DEATHS	3,392
PERINATAL DEATH RATE	23.7
MATERNAL DEATHS	26
MATERNAL DEATH RATE	1.8

Between 1900 to 1973 the number of deaths occurring to Michigan residents increased from 32,453 to 78,522. The 31,472 deaths recorded in 1902 was the lowest number of resident deaths in this century, while the greatest number was recorded in 1972 when total resident deaths numbered 79,210. Although the total number of deaths increased between 1900 and 1973, the crude death rate decreased. The crude death rate in 1900 was 13.4 while the rate in 1973 was 8.7. The lowest crude death rate observed since 1900 was 8.4. This rate was observed both in 1958 and 1959. The highest death rate (15.6) was observed in 1918.

Heart, cancer, and stroke deaths numbered 2,836, 1,460, and 2,136 respectively in 1900, whereas in 1973 heart, cancer, and stroke deaths numbered 29,944, 14,220, and 7,987 respectively. Although there have been significant increases in the number of deaths from these causes, changes in death rates per 100,000 population have not been nearly so dramatic. Heart, cancer, and stroke cause-specific death rates in 1900 were 117.1, 60.3, and 88.2 respectively. Comparable figures for 1973 are 330.5, 156.9, and 88.1.

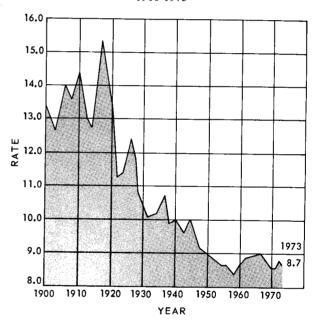
In 1973, 78,522 deaths were recorded as having occurred to residents of Michigan. The crude death rate for 1973 was 8.7. There has been no significant changes in either the absolute number of deaths or the crude death rate over the past few years (Figure 2.1). This rather static pattern in the crude death rate is not unique to Michigan, as it is similar to a pattern that has emerged across the nation. A comparison of deaths and crude death rates for Michigan and the United States for the period 1963 - 1973 is presented in Table 2.1.

The stationary pattern in deaths is to be expected given the fact that the vast majority of deaths are due to chronic conditions or conditions that are a function of age. As the number of deaths from chronic diseases may be considered to some extent largely a function of age and sex, one can reasonably expect

TABLE 2.1—Number of Deaths and Crude Death Rates, Michigan and United States Residents, 1963-1973

UNITED S	STATES	VEAD	MICHIGAN			
NO.	RATE	YEAR	NO.	RATE		
1,813,549	9.6	1963	72,438	9.0		
1,798,051	9.4	1964	72,129	8.9		
1,828,136	9.4	1965	73,665	9.0		
1,863,149	9.5	1966	74,596	9.0		
1,851,323	9.4	1967	75,360	8.7		
1,930,082	9.7	1968	76,855	8.9		
1,921,990	9.5	1969	76,693	8.8		
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		
1,969,000 Pr.	9.4 Pr.	1973	78,522	8.7		

FIGURE 2.1—Crude Death Rate, Michigan Residents, 1900-1973



that the total number of deaths is not likely to change significantly without a concomitant change in the size or composition of the population as a whole or until such time as significant advances are made in reducing mortality to heart disease, cancer, and stroke.

Of the 78,522 resident deaths that occurred in 1973, 44,488 occurred to males and 34,034 occurred to females. The median age of death for males was 67, compared to a significantly higher figure for females of 74. White deaths numbered 68,502 and accounted for 87 percent of all deaths. Negro deaths numbered 9,641 while 379 deaths occurred to members of all other races (Table 2.2).

TABLE 2.2—Number of Deaths by Age, Race and Sex, Michigan Residents, 1973

		TOTAL	,	,	WHITE			BLACK			THER	
AGE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE
Under 1 Year	2,561	1,474	1,087	1,749	1,031	718	796	430	366	16	13	3
1-4 Years	500	279	221	348	193	155	149	84	65	3	2	1
5-9 Years	318	198	120	263	160	103	52	35	17	3	3	
10-14 Years	384	244	140	324	203	121	60	41	19		_	
15-19 Years	1,064	762	302	862	623	239	195	133	62	7	6	1
20-24 Years	1,312	1,000	312	935	721	214	366	273	93	11	6	5
25-29 Years	1,035	722	313	702	484	218	322	233	89	11	5	6
30-34 Years	959	655	304	672	458	214	280	194	86	7	3	4
35-39 Years	1,075	676	399	768	471	297	295	195	100	12	10	2
40-44 Years	1,783	1,120	663	1,306	818	488	457	287	170	20	15	5
45-49 Years	2,916	1,800	1,116	2,240	1,381	859	646	396	250	30	23	7
50-54 Years	4,192	2,647	1,545	3,411	2,157	1,254	753	469	284	28	21	7
55-59 Years	5,620	3,611	2,009	4,792	3,106	1,686	798	487	311	30	18	12
60-64 Years	7,075	4,614	2,461	6,082	3,986	2,096	956	604	352	37	24	13
65-69 Years	8,217	5,217	3,000	7,221	4,641	2,580	946	539	407	50	37	13
70-74 Years	9,214	5,478	3,736	8,263	4,951	3,312	913	503	410	38	24	14
75-79 Years	10,326	5,473	4,853	9,573	5,038	4,535	721	415	306	32	20	12
80-84 Years	9,619	4,562	5,057	9,128	4,339	4,789	477	218	259	14	5	9
85-89 Years	6,602	2,707	3,895	6,306	2,562	3,744	274	137	137	22	8	14
90 and Over	3,745	1,248	2,497	3,553	1,183	2,370	184	63	121	8	2	6
Not Stated	. 5	1	4	4	1	3	1	_	. 1			
Total	78,522	44,488	34,034	68,502	38,507	29,995	9,641	5,736	3,905	379	245	134
Median Age	. 70	67	74	71	68	75	57	56	60	61	59	65

The greatest number of deaths occurred to persons 75-79 years of age and the least number to persons ages 5-9. However, the greatest number of deaths for black persons occurred to persons 60-64 years of age. A total of 24,458 (35.7%) of the deaths occurring to white persons take place before the age of 65; whereas, 6,126 or 63.5 percent of deaths occurring to black persons take place before the age of 65.

Furthermore, 41 percent of the white male deaths were to persons less than 65 years of age. The corresponding figure for black males is 67.3 percent.

Similarly for white females, 28.8 percent died before age 65; whereas, 58.0 percent of black female deaths occurred before the age of 65.

Data in Table 2.3 illustrate the higher death rates for males at every age group. The most significant differences occur in the age groups 15-19, 20-24, 25-29 and 30-34. The high death rates for ages 0-4 reflect the influence of infant mortality. Death rates for both males and females age 20-24 are higher than the rates for the immediately preceding (younger) age group and the 25-29 age group.

TABLE 2.3—Death Rates¹ by Age and Sex, Michigan Residents, 1973

AGE	TOTAL	MALE	FEMALE
All Ages	866.6	999.3	738.4
0-4 Years	384.8	431.3	335.9
5-9 Years	37.3	45.6	28.7
10-14 Years	40,6	50.7	30.1
15-19 Years	112.8	158.8	65.2
20-24 Years	178.3	288.3	80.3
25-29 Years	165.8	244.6	95.0
30-34 Years	166.9	221.2	109.2
35-39 Years	227.7	282.8	170.9
40-44 Years	369.2	463.3	274.9
45-49 Years	548.2	686.4	413.9
50-54 Years	827.6	1,087.0	588.2
55-59 Years	1,281.5	1,700.4	886.6
60-64 Years	1.981.8	2,706.0	1,320.3
65-69 Years	3.002.8	4.083.1	2,054.8
70-74 Years	4.937.7	6.183.2	3,270.1
75-79 Years	6,991.5	8,973.3	5,597.1
80-84 Years	8,630.8	10,786,4	7.345.2
85 and Over	16,313.2	17,419.1	15,629.9

<sup>1</sup> Rates per 100,000 population.

#### LEADING CAUSES OF DEATH

The principal causes of death in Michigan in 1973 remained much the same as they have in the recent past. The ten leading causes of death and cause-specific rates per 100,000 population are displayed in Table 2.4 and Figure 2.2.

In 1973, the causes Influenza and Pneumonia and Homicide moved up one rank while Diabetes Mellitus and Arteriosclerosis moved back one rank. The tenth leading cause in 1973 is Suicide. New to the list this year, it replaces Emphysema.

FIGURE 2.2—Leading Causes of Death, Michigan Residents,

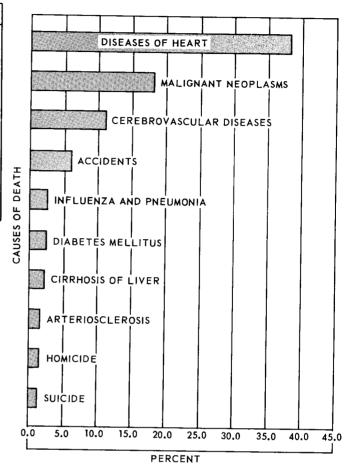


TABLE 2.4—Leading Causes of Death and Cause-Specific Rates, Michigan and United States Residents, 1973

RANK	CAUSE OF DEATH	NUMBER (	OF DEATHS	RATE				
	CAUSE OF BEATH	MICHIGAN	U.S. Prov.	MICHIGAN	U.S. Prov.			
1	Diseases of Heart	29,944	754,460	330.5	359.5			
2	Malignant Neoplasms	14,220	353,440	156.9	168.4			
3	Cerebrovascular Diseases	7,987	214,650	88.1	102.3			
4	Accidents	4,630	115,040	51.1	54.8			
5	Influenza and Pneumonia	2,090	61,160	23.1	29.1			
6	Diabetes Mellitus	2,074	36,450	22.9	17.4			
7	Cirrhosis of Liver	1,711	33,630	18.9	16.0			
8	Homicide	1,180	19,700	13.0	9.4			
9	Arteriosclerosis	1,142	33,430	12.6	15.9			
10	Suicide	1,117	24,440	12.3	11.6			
	Sub Total	66,095	1,646,400	729.4	784.6			
	All Other Causes	12,427	330,600	137.1	157.5			
	TOTAL	78,522	1,977,000	866.6	942.1			

Note: A detailed tabulation of deaths by specific conditions for 1973 is included in Section 4. Also included in Section 4 is a tabulation by County of Residence of selected causes of death.

No major changes in the order of the ten leading causes for the United States were observed. Several major differences between the United States figures and those of Michigan should be noted. The overall Michigan death rate is significantly lower than the national rate. However, some cause-specific rates are higher than comparative national rates. Examples of such causes include Diabetes Mellitus, Cirrhosis of the Liver and Homicides.

#### DISEASES OF THE HEART

In 1973, 29,944 Michigan residents died from diseases of the heart. Heart disease continues to be the single largest cause of death in Michigan and the United States, accounting for more deaths than the next four largest causes combined (cancer, stroke, and accidents).

Of the 29,944 deaths due to diseases of the heart

TABLE 2.5—Deaths Due to Diseases of the Heart by Age, by Race and Sex, Michigan Residents, 1973

						RA	CE					
AGE GROUP	AI	L RAC	ES		WHITE	;		BLACK			отнег	Ł .
	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE
Under 1 Year	14	7	7	9	4	5	5	3	2		_	_
1-4 Years	11	6	5	3	2	1	8	4	4	_	_	_
5-9 Years	8	2	6	8	2	6		_	_	_	_	
10-14 Years	7	6	1	6	5	1	1	1	_	_	_	
15-19 Years	27	18	9	18	11	7	9	7	2		_	
20-24 Years	23	15	8	14	8	6	9	7	2	_		
25-29 Years	45	29	16	32	22	10	13	7	6	—		
30-34 Years	90	62	28	66	48	18	24	14	10	_		
35-39 Years	176	132	44	140	111	29	35	20	15	1	1	_
40-44 Years	401	292	109	319	247	72	79	42	37	3	3	_
45-49 Years	817	642	175	662	541	121	149	97	52	6	4	2
50-54 Years	1,449	1,071	378	1,216	920	296	221	143	78	12	8	4
55-59 Years	2,172	1,572	600	1,876	1,383	493	283	180	103	13	9	4
60-64 Years	2,850	2,027	823	2,467	1,778	689	365	237	128	18	12	6
65-69 Years	3,389	2,221	1,168	2,990	2,000	990	379	207	172	20	14	6
70-74 Years	4,067	2,452	1,615	3,678	2,234	1,444	371	207	164	18	11	7
75-79 Years	4,695	2,487	2,208	4,385	2,311	2,074	295	166	129	15	10	5
80-84 Years	4,573	2,117	2,456	4,359	2,031	2,328	211	85	126	3	1	2
85-89 Years	3,195	1,310	1,885	3,051	1,241	1,810	132	65	67	12	4	8
90 and Over	1,934	642	1,292	1,842	611	1,231	86	29	57	6	2	4
Not Stated	1	_	1	1		1	_		_	_		_
All Ages	29,944	17,110	12,834	27,142	15,510	11,632	2,675	1,521	1,154	127	79	48
Median Age at Death	. 74	70	78	75	71	78	66	64	69	67	65	71

in 1973, 17,110 were males and 12,834 were females. The median age at death for males was 70 compared to a figure of 78 for females. The median age at death for all heart deaths was 74 (Table 2.5).

Examination of Table 2.5 reveals that the heart disease death rate for males is substantially higher than that for females (384.3 as compared to 278.5).

Between the ages 0-4 the death rates are about the same for both sexes. At ages 5-9 and 10-14 death rates were not computed due to the small number of events. For all the remaining age groups, the male heart disease death rate is greater than the female death rate (Table 2.6).

The most prevalent condition in this group of heart disease is acute myocardial infarction (14,724 deaths in 1973) commonly referred to as a "coronary" (Table 2.7). Almost as frequent is chronic ischemic heart disease. In 1973, there were 12,633 deaths attributed to this cause. Together, acute myocardial infarction and chronic ischemic heart disease are the underlying cause in 91.4 percent of all Michigan heart disease deaths. The remaining 8.6 percent of the deaths are distributed among 22 other types of heart disease. Just over 50 percent of the remaining 2,587 deaths can be attributed to two causes: symptomatic heart disease and hypertensive heart disease (966 and 330 deaths respectively).

TABLE 2.6—Heart Disease Death Rates by Age and Sex, Michigan Residents, 1973

AGE	TOTAL	MALE	FEMALE
All Ages	330.5	384.3	278.5
0-4 Years	3.1	3.2	3.1
5-9 Years	*		*
10-14 Years	*		*
15-19 Years	2.9	3.8	1.9
20-24 Years	3.1	4.3	2.1
25-29 Years	7.2	9.8	4.9
30-34 Years	15.7	20.9	10.1
35-39 Years	37.3	55.2	18.8
40-44 Years	83.0	120.8	45.2
45-49 Years	153.6	244.8	64.9
50-54 Years	286.1	439.8	143.9
55-59 Years	495.3	740.3	264.8
60-64 Years	798.3	1,188.8	441.5
65-69 Years	1,238.5	1,738.3	800.0
70-74 Years	2,003.8	2,767.7	1.413.6
75-79 Years	3,178.9	4,077.6	2,546.5
80-84 Years	4,103.2	5,005,4	3.567.3
85 and Over	8,086.5	8,597.2	7,768.5

<sup>\*</sup> Not computed due to the small number of occurrences.

TABLE 2.7—Deaths Due to Diseases of the Heart by Detailed Cause, Michigan Residents, 1973

ICDA NO.	CAUSE AND SITE	NO. OF DEATHS	PERCENT
410	Acute myocardial infarction	14,724	49.2
412	Chronic ischemic heart disease	12,633	42.2
427	Symptomatic heart disease	966	3.2
402	Hypertensive heart disease	330	1.1
398	Other heart disease specified as rheumatic	184	0.6
395	Disease of aortic valve	157	0.5
404	Hypertensive heart and renal disease	140	0.5
394	Diseases of mitral valve	136	0.5
428	Other myocardial insufficiency	124	0.4
425	Cardiomyopathy	111	0.4
411	Other acute and subacute forms of ischemic heart disease	99	0.3
429	Ill-defined heart disease	72	0.2
426	Pulmonary heart disease	61	0.2
424	Chronic disease of endocardium	46	0.2
396	Diseases of mitral and aortic valve	40	0.1
421	Acute and subacute endocarditis	28	0.1
397	Diseases of other endocardial structures	27	0.1
422	Acute myocarditis	19	0.1
423	Chronic disease of pericardium, non-rheumatic	15	0.1
391	Rheumatic fever with heart involvement	11	0.0
413	Anigina pectoris	11	0.0
393	Diseases of pericardium	7	0.0
420	Acute pericarditis, nonrheumatic	2	0.0
390	Rheumatic fever without mention of heart involvement	1	0.0
	TOTAL	29,944	100.0

#### **CANCER**

Of 78,552 Michigan resident deaths, 14,220 persons died from cancer in 1973. Although not the leading cause of death in Michigan and the United States, cancer affects all the human body's major systems and persons of all ages.

Of the 14,220 cancer deaths in 1973 occurring to Michigan residents, 7,887 were males while 6,333 occurred to females. The median age at death for males was 67 and for female 66 (Table 2.8).

Cancer death rates for males exceed those for females (177.2 as compared to 137.4). However, for ages 30-49 the cancer death rate for females is

TABLE 2.8—Deaths Due to Cancer by Age, by Race and Sex, Michigan Residents, 1973

						RAG	CE					<u></u>
AGES	AL	L RAC	ES		WHITE	,		BLACK			отнег	ł
	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE
Under 1 Year	5	2	3	4	2	2	1	_	1	_	_	
1-4 Years	49	32	17	42	27	15	7	5	2	1		_
5-9 Years	55	33	22	49	31	18	6	2	4			
10-14 Years	55	31	24	48	27	21	7	4	3	_		
15-19 Years	75	48	27	65	41	24	10	7	3	_	_	
20-24 Years	77	54	23	67	46	21	9	7	2	1	1	
25-29 Years	94	53	41	85	49	36	9	4	5	_		_
30-34 Years	97	47	50	81	39	42	16	8	8	_		
35-39 Years	180	80	100	155	67	88	24	12	12	1	1	_
40-44 Years	365	155	210	314	138	176	50	17	33	1	_	1
45-49 Years	754	334	420	617	271	346	134	62	72	3	1	2
50-54 Years	1,127	565	562	942	463	479	180	98	82	5	4	1
55-59 Years	1,584	863	721	1,357	731	626	222	130	92	5	2	3
60-64 Years	1,859	1,116	743	1,618	962	656	237	154	83	4	_	4
65-69 Years	2,028	1,253	775	1,828	1,126	702	196	124	72	4	3	1
70-74 Years	1,951	1,168	783	1,754	1,041	713	194	124	70	3	3	_
75-79 Years	1,776	979	797	1,645	891	754	124	85	39	7	3	4
80-84 Years	1,246	670	576	1,179	632	547	67	38	29		_	_
85-89 Years	641	330	311	606	305	301	33	23	10	2	2	_
90 and Over	201	74	127	181	67	114	19	7	12	1	_	1
Not Stated	1	_	1	1	_	1	_	_				
All Ages	14,220	7,887	6,333	12,638	6,956	5,682	1,545	911	634	37	20	17
Median Age at Death	66	67	66	67	67	67	62	60	59	*	*	*

<sup>\*</sup> Not computed due to the small number of occurrences.

TABLE 2.9—Cancer Death Rates by Age and Sex, Michigan Residents, 1973

AGE	TOTAL	MALE	FEMALE
All Ages	156.9	177.2	137.4
0-4 Years		8.4	5.1
5-9 Years	6.5	7.6	5.3
10-14 Years	5.8	6.4	5.2
15-19 Years	8.0	10.0	5.8
20-24 Years	10.5	15.6	5.9
25-29 Years		18.0	12.4
30-34 Years	16.9	15.9	18.0
35-39 Years		33.5	42.8
40-44 Years	75.6	64.1	87.1
45-49 Years	141.8	127.4	155.8
50-54 Years	222.5	232.0	213.9
55-59 Years	361.2	406.4	318.2
60-64 Years	520.7	654.5	398.6
65-69 Years	741.1	980.7	530.8
70-74 Years		1,318.4	685.3
75-79 Years	1,202.5	1,605.1	919.2
80-84 Years		1,584.1	836.6
85 and Over	1,327.5	1,779.3	1,071.0

greater than for males. The male/female differential is greatest in the older age groups (Table 2.9).

Deaths from cancer for 59 different causes and sites are presented in Table 2.10. The most common underlying cause of cancer mortality is malignant neoplasm of the Trachea, Bronchus and Lung. In 1973, 21.1 percent of all cancer deaths are attributed to this cause. The second most frequent cause of cancer mortality is cancer of the large intestine (1,529 deaths). Breast cancer (1,326 deaths) is third while malignant neoplasms of the prostrate and pancreas are fourth and fifth. These first five of the 59 causes listed constitute 51.1 percent of all cancer deaths in Michigan (Table 2.10).

TABLE 2.10—Malignant Neoplasms by Site Affected, Michigan Residents, 1973

ICDA NO.	CAUSE AND SITE	NO. OF DEATHS	PERCENT
162	Malignant Neoplasm of Trachea, Bronchus and Lung	3,004	21.1
153	Malignant Neoplasm of Large Intestine, Except Rectum	1,529	10.8
174	Malignant Neoplasm of Breast	1,326	9.3
185	Malignant Neoplasm of Prostate	729	5.1
157	Malignant Neoplasm of Pancreas	710	5.0
151	Malignant Neoplasm of Stomach	612	4.3
199	Malignant Neoplasm without Specification of Site	531	3.7
188	Malignant Neoplasm of Bladder	388	2.7
183	Malignant Neoplasm of Ovary, Fallopian Tube and Broad Ligament	373	2.6
154	Malignant Neoplasm of Rectum and Rectosigmoid Junction	364	2.6
200	Lymphosarcoma and Reticulum-Cell Sarcoma	324	2.3
191	Malignant Ne plasm of Brain	318	2.2
189	Malignant Neoplasm of Other and Unspecified Urinary Organs	301	2.1
150	Malignant Neoplasm of Esophagus	287	2.0
205	Myeloid Leukemia	284	2.0
180	Malignant Neoplasm of Cervix Uteri	264	1.9
197	Secondary Malignant Neoplasm of Respira- tory and Digestive Systems	246	1.7
182	Other Malignant Neoplasm of Uterus	218	1.5
156	Malignant Neoplasm of Gall Bladder and Bile Ducts	196	1.4
203	Multiple Myeloma	187	1.3
207	Other and Unspecified Leukemia	168	1.2
204	Lymphatic Leukemia	167	1.2
201	Hodgkin's Disease	151	1.1
202	Other Neoplasms of Lymphoid Tissue	145	1.0
161	Malignant Neoplasm of Larynx	126	0.9
172	Malignant Melanoma of Skin	109	0.8
195	Malignant Neoplasm of Ill-Defined Sites	103	0.7
155	Malignant Neoplasm of Liver and Intra- hepatic Bile Ducts, Specified as Primary	84	0.6
171	Malignant Neoplasm of Connective and other Soft Tissue	75	0.5
198	Other Secondary Neoplasms	75	0.5
170	Malignant Neoplasm of Bone	71	0.5

ICDA NO.	CAUSE AND SITE	NO. OF DEATHS	PERCENT
141	Malignant Neoplasm of Tongue	66	0.5
149	Malignant Neoplasm of Pharynx, Unspeci- fied	59	0.4
186	Malignant Neoplasm of Testis	50	0.4
145	Malignant Neoplasm of Other and Unspeci- fied Parts of the Mouth	44	0.3
184	Malignant Neoplasm of Other and Unspeci- fied Female Genital Organs	44	0.3
193	Malignant Neoplasm of Thyroid Gland	43	0.3
192	Malignant Neoplasm of Other Parts of Nervous System	43	0.3
173	Other Malignant Neoplasm of Skin	39	0.3
146	Malignant Neoplasm of Oropharynx	37	0.3
209	Myelofibrosis	31	0.2
208	Polycythemia Vera	30	0.2
158	Malignant Neoplasm of Peritoneum and Retroperitoneal Tissue	28	0.2
163	Malignant Neoplasm of Other and Unspeci- fied Respiratory Organs	27	0.2
144	Malignant Neoplasm of Floor of Mouth	26	0.2
152	Malignant Neoplasm of Small Intestine, Including Duodenum	24	0.2
159	Malignant Neoplasm of Unspecified Digestive Organs	24	0.2
160	Malignant Neoplasm of Nose, Nasal Cavities, Middle Ear and Accessory Sinuses	22	0.2
147	Malignant Neoplasm of Nasopharynx	21	0.1
206	Monocytic Leukemia	20	0.1
148	Malignant Neoplasm of Hypopharynx	19	0.1
194	Malignant Neoplasm of Other Endocrine Glands	13	0.1
190	Malignant Neoplasm of Eye	12	0.1
142	Malignant Neoplasm of Salivary Gland	11	0.1
187	Malignant Neoplasm of Other and Unspeci- fied Male Genital Organs	6	0.0
140	Malignant Neoplasm of Lip	4	0.0
196	Secondary and Unspecified Malignant Neoplasm of Lymph Nodes	4	0.0
143	Malignant Neoplasm of Gum	4	0.0
181	Chorinepithelioma	4	0.0
	TOTAL	14,220	99.9

#### CEREBROVASCULAR DISEASES

Deaths due to cerebrovascular diseases (stroke) accounted for 7,987 (10.2%) deaths among Michigan residents in 1973. Stroke is the third leading cause of death.

Of the 7,987 deaths due to cerebrovascular diseases in 1973, 3,569 were males while 4,418 were females. The median age at death for males was 75 while the median age among females was significantly higher (79). The median age for all deaths from cerebrovascular diseases was 77 (Table 2.11).

TABLE 2.11—Deaths Due to Cerebrovascular Diseases by Age, Race and Sex, Michigan Residents, 1973

				,		RAG	CE					
AGES	AL	L RAC	ES	,	WHITE			BLACK	•		отнев	<u> </u>
•	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE
Under 1 Year	3	3		3	3		_	_	_		_	
1-4 Years	4	2	2	2	1	1	2	1	1		_	
5-9 Years	6	4	2	5	3	2	1	1	_	_	*****	
10-14 Years	7	4	3	6	4	2	1	_	1	_	_	
15-19 Years	11	7	4	8	6	2	3	1	2		_	_
20-24 Years	12	7	5	8	5	3	4	2	2	_	_	
25-29 Years	27	16	11	19	9	10	8	7	1	_	_	_
30-34 Years	30	13	17	22	8	14	8	5	3	_	_	_
35-39 Years	46	20	26	30	11	19	16	9	7	<u> </u>		_
40-44 Years	91	47	44	60	27	33	29	18	11	2	2	_
45-49 Years	154	68	86	110	48	62	43	19	24	1	1	_
50-54 Years	221	117	104	180	94	86	41	23	18	_	_	_
55-59 Years	318	183	135	249	148	101	68	35	33	1	_	1
60-64 Years	520	292	228	428	247	181	87	42	45	5	3	2
65-69 Years	705	398	307	581	342	239	121	55	66	3	1	2
70-74 Years	999	518	481	890	468	422	105	49	56	4	1	3
75-79 Years	1,445	661	784	1,327	600	727	117	61	56	1	_	1
80-84 Years	1,529	615	914	1,451	587	864	74	27	47	4	1	3
85-89 Years	1,209	412	797	1,160	388	772	48	23	25	1	1	
90 and Over	650	182	468	624	176	448	26	6	20	_	_	
Not Stated	_		_	_		_			_	_	_	
All Ages	7,987	3,569	4,418	7,163	3,175	3,988	802	384	418	22	10	12
Median Age at Death	77	75	79	78	76	80	68	67	69	*	*	*

<sup>\*</sup> Not computed due to the small number of occurrences.

The median age for black persons dying of cerebrovascular disease is 10 years less than for white persons dying of cerebrovascular disease. The median ages at death are 68 and 78 respectively.

The cerebrovascular death rate is greater for females than for males (95.9 as compared to 80.2). However, in only 4 of the 13 age groups for which rates were calculated, were the female rates higher than the male rates. The major factor attributing to the overall male/female differential is cerebrovascular deaths occurring to persons age 85 and over. For this group, female cerebrovascular deaths outnumber the male deaths by more than 2 to 1. (1,265 as compared to 594). The rates are 3,093.2 and 2,616.2 respectively (Table 2.12). A greater number of female as compared to male cerebrovascular diseases is also found for age groups 75-79 and 80-84. But, the male death rates for these two groups are greater than the female death rates.

Cerebral Thrombosis is the type of cerebrovascular disease which results in the greatest number of cerebrovascular deaths. A total of 2,446 persons died of this disease in 1973. Almost an equal percent of the cerebrovascular deaths were classified as acute, but ill-defined cerebrovascular disease (Table 2.13).

TABLE 2.12—Cerebrovascular Disease Death Rates by Age and Sex, Michigan Residents, 1973

AGE	TOTAL	MALE	FEMALE
All Ages	88.1	80.2	95.9
0-4 Years	*	*	*
5-9 Years	*	*	*
10-14 Years	*		*
15-19 Years	*	*	*
20-24 Years	*	*	*
25-29 Years	4.3	5.4	3.3
30-34 Years	5.2	4.4	6.1
35-39 Years	9.7	8.4	11.1
40-44 Years	18.8	19.4	18.2
45-49 Years	29.0	25.9	31.9
50-54 Years	43.6	48.0	39.6
55-59 Years	72.5	86.2	59.6
60-64 Years	145.7	171,2	122.3
65-69 Years	257.6	311.5	210.3
70-74 Years	492.2	584.7	421.0
75-79 Years	978.4	1,083.7	904.2
80-84 Years	1,371.9	1,454.1	1,327.6
85 and Over	2,930.9	2,616.2	3,093.2

<sup>\*</sup> Not computed due to small number of occurrences.

TABLE 2.13—Cerebrovascular Disease Deaths by Cause, Michigan Residents, 1973

433         Cerebral Thrombosis         2,446         30.6           436         Acute but III-defined Cerebrovascular Disease         2,387         29.9           437         General Ischemic Cerebrovascular Disease         1,241         15.5           431         Cerebral Hemorrhage         1,233         15.4           430         Subarachnoid Hemorrhage         379         4.7           432         Cerebral Occlusion         132         1.7           438         Other and III-defined Cerebrovascular Disease         129         1.6           434         Cerebral Embolism         39         0.5           435         Transient Cerebral Ischemia         1         0.0	ICDA LIST NO.	CAUSE OF DEATH	NO. OF DEATHS	PERCENT
Disease   2,387   29.9	433	Cerebral Thrombosis	2,446	30.6
431         Cerebral Hemorrhage         1,233         15.4           430         Subarachnoid Hemorrhage         379         4.7           432         Cerebral Occlusion         132         1.7           438         Other and Ill-defined Cerebrovascular Disease         129         1.6           434         Cerebral Embolism         39         0.5	436		2,387	29.9
430         Subarachnoid Hemorrhage         379         4.7           432         Cerebral Occlusion         132         1.7           438         Other and Ill-defined Cerebrovascular Disease         129         1.6           434         Cerebral Embolism         39         0.5	437	General Ischemic Cerebrovascular Disease	1,241	15.5
432         Cerebral Occlusion         132         1.7           438         Other and Ill-defined Cerebrovascular Disease         129         1.6           434         Cerebral Embolism         39         0.5	431	Cerebral Hemorrhage	1,233	15.4
438         Other and Ill-defined Cerebrovascular Disease         129         1.6           434         Cerebral Embolism         39         0.5	430	Subarachnoid Hemorrhage	379	4.7
Disease         129         1.6           434         Cerebral Embolism         39         0.5	432	Cerebral Occlusion	132	1.7
	438		129	1.6
435 Transient Cerebral Ischemia 1 0.0	434	Cerebral Embolism	39	0.5
	435	Transient Cerebral Ischemia	1	0.0
TOTAL 7,987 99.9		TOTAL	7,987	99.9

#### **ACCIDENTS**

In 1973, accidents accounted for 4,630 resident deaths in Michigan.

Of the 4,630 deaths due to accidents occurring to Michigan residents in 1973, 3,202 were males while 1,428 occurred to females. The median age at death among males was 30 and females 46 (Table 2.14).

The median age at death for all accidents was 33

years and the median age for motor vehicle traffic accident deaths was 32 years. Both of these statistics are considerably lower than the median age for all deaths (70 years).

The large differential in the median age of accidental deaths for males as compared to females is the result of a greater number of accidental deaths in all age groups except the 3 oldest age groups. Note in particular the large differential in the age groups

TABLE 2.14—Deaths Due to Accidents by Age, Race and Sex, Michigan Residents, 1973

	RACE											
AGES	ALL RACES			WHITE			1	BLACK		OTHER		
	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE
Under 1 Year	75	48	27	51	33	18	21	13	8	3	2	1
1-4 Years	216	121	95	153	85	68	61	35	26	2	1	1
5-9 Years	147	97	50	118	74	44	26	20	6	3	3	
10-14 Years	200	142	58	175	121	54	25	21	4		_	
15-19 Years	590	446	144	533	409	124	50	31	19	7	6	1
20-24 Years	572	468	104	501	415	86	61	48	13	10	5	5
25-29 Years	316	245	71	271	216	55	38	27	11	7	2	5
30-34 Years	287	225	62	238	191	47	44	31	13	5	3	2
35-39 Years	181	140	41	149	118	31	31	21	10	1	1	_
40-44 Years	206	157	49	161	121	40	37	28	9	8	8	-
45-49 Years	239	175	64	191	131	60	32	29	3	16	15	1
50-54 Years	236	162	74	195	130	65	35	27	8	6	5	1
55-59 Years	188	143	45	159	121	38	24	17	7	5	5	_
60-64 Years	196	138	58	168	113	55	25	22	3	3	3	_
65-69 Years	182	110	72	162	97	65	15	9	6	5	4	1
70-74 Years	177	108	69	157	96	61	19	12	7	1	_	1
75-79 Years	175	96	79	165	88	77	10	8	2	_	_	_
80-84 Years	190	94	96	182	90	92	5	3	2	3	1	2
85-89 Years	153	60	93	149	60	89	3	_	3	1	_	1
90 and Over	104	27	77	102	26	76	2	1	1	_	-	
Not Stated	_	_	_	_	_		_	_	_	-		_
All Ages	4,630	3,202	1,428	3,980	2,735	1,245	564	403	161	86	64	22
Median Age at Death	33	30	46	33	30	49	30	31	27	*	*	*

<sup>\*</sup> Not computed due to the small number of occurrences.

TABLE 2.15—Accident Death Rates by Age and Sex, Michigan Residents, 1973

TABLE 2.16—Accidental Deaths by Type of Accident, Michigan Residents, 1973

ICDA LIST NO.	TYPE OF ACCIDENTS	NO. OF DEATHS	PERCENT
E810-E819	Motor Vehicle Traffic Accidents	2,326	50.2
E880-E887	Accidental Falls	652	14.1
E890-E899	Accidents Caused by Fires and Flames	264	5.7
E870-E877	Accidental Poisoning by Gases and Vapors	103	2.2
E850-E859	Accidental Poisonings by Drugs and Medicaments	89	1.9
E840-E845	Air and Space Transport Accidents	69	1.5
E830-E838	Water Transport Accidents	67	1.4
E820-E823	Motor Vehicle Non-traffic Accidents	63	1.4
E930-E936	Surgical and Medical Complications and Misadventures	60	1.3
E900-E909	Accidents Due to Natural and Envi- ronmental Factors	40	0.9
E860-E869	Accidental Poisoning by Other Solid and Liquid Substances	37	0.8
E940-E949	Late Effects of Accidental Injury	24	0.5
E800-E807	Railway Accidents	11	0.2
E825-E827	Other Road Vehicle Accidents	6	0.1
E910-E929	Other Accidents	819	17.7
	TOTAL	4,630	99.9

15-19, 20-24 and 25-29. A difference of similar magnitude is observed for white, but not black, accidental deaths.

Death rates as the result of accidents for males is twice as large as that for females. Male accidental death rates are greater than female accidental death rates for all age groups except the group 85 and over. The difference between male and female rates is greatest at age 20-24 where the male rate is 5 times greater than the female rate (Table 2.15).

The type of accident that continues to claim the greatest number of lives is the motor vehicle traffic accident. This type of accident accounted for 50.2 percent of all accidental deaths occurring in 1973 to Michigan residents. The second (14.1 percent in 1973) major cause of accidental deaths occurring to Michigan residents is accidental falls (Table 2.16).

Except for one change, the listed types of accidents remains in the same order according to the number of deaths, as previous years. The one exception is causes E930-E936 (Surgical and Medical Complications and Misadventures). In 1970, '71 and '72 there were 27, 24 and 13 deaths attributed to this cause. In 1973 there were 60 deaths classified to causes E930-E936.

#### INFANT DEATHS

Of the 78,552 deaths occurring to Michigan residents in 1973, 2,561 occurred to individuals less than one year of age. Significant reductions in infant mortality were recorded during the first half of this century both for Michigan and the United States. This probably was due in large part to an everincreasing number of births attended by physicians which occurred in more modern well-equipped hospitals.

As can be seen from Table 2.17, rather steady declines have occurred in infant death rates for Michigan residents and for the United States as a whole during the period from 1963 to 1973.

There are three subclassification	ons of infant death:
Deaths Under 1 Day	1,131 in 1973
Deaths Under 7 Days	1,710 in 1973
Deaths Under 28 Days	1,902 in 1973
Total Infant Deaths	
(Under 1 Year)	2.561 in 1973

TABLE 2.17—Infant Deaths and Infant Mortality Rates, Michigan and United States Residents, 1963-1973

UNITED STAT	UNITED STATES		MICHIGAN		
NO.	RATE	YEAR -	NO:	RATE	
103,390	25.2	1963	4,150	23.2	
99,783	24.8	1964	4,043	23.1	
92,866	24.7	1965	3,936	23.6	
85,516	23.7	1966	3,751	22.6	
79,028	22.4	1967	3,595	22.1	
76,263	21.8	1968	3,438	21.6	
75,073	20.9	1969	3,356	20.2	
74,667	20.0	1970	3,492	20.3	
67,981	19.1	1971	3,157	19.5	
60,182	18.5	1972	2,801	19.1	
55,300 Prov.	17.6 Pr.	1973	2,561	18.1	

When deaths under one week are grouped together with fetal deaths the resultant total is called perinatal deaths. By placing a ceiling of six days for the infant component of perinatal deaths, most accidental and environmental causes of death have been eliminated. In 1973, Michigan resident perinatal deaths numbered 3,392 and the perinatal death rate was 23.7.

Another major type of infant death classification is by cause of death. As with fetal deaths there is some non-specific reporting. The number of deaths allocated to "Other Diseases of Early Infancy" was 881 (34.4%) in 1973. Congenital anomalies in 1973 numbered 408. Asphyxia of newborn numbered 254 and immaturity deaths numbered 262.

Influenza and Pneumonia deaths numbered 129, while accidental deaths numbered 75. As can be observed from Table 2.18 the vast majority of infant deaths are attributable to causes restricted to the fetus and newborn but there still remain other major causes of death particularly in three areas: (1) infective and parasitic diseases; (2) respiratory diseases and (3) accidents.

# COMMUNICABLE DISEASE DEATHS

Although comprising a smaller proportion of deaths than they have in the past, communicable disease deaths continue to be a major concern to public health professionals. Deaths due to such diseases as diphtheria, scarlet fever and streptococcal sore throat, smallpox, typhoid fever, measles, poliomyelitus and others have been virtually eliminated not only in Michigan, but across the nation. Table 4.5 illustrates trends in deaths from the major communicable diseases.

In 1973, deaths from all infective and parasitic diseases numbered 544. As can be observed from Table 2.19, the four major causes of death in this group are septicemia (153 deaths), Tuberculosis (138 deaths), Diarrheal disease (67 deaths) and Infectious Hepatitis (32 deaths).

Of particular importance is the fact that infants accounted for 10.1 percent of all infective and parasitic disease deaths while accounting for only 3.3 percent of all deaths. The median age at death for those dying due to infective and parasitic diseases is 60 years.

TABLE 2.18—Infant Deaths by Cause of Death, Michigan Residents, 1973

ICDA LIST NO.	CAUSE	FREQUENCY	
740-759	Congenital Anomalies	408	
777	Immaturity Unqualified	262	
776.9	Asphyxia of Newborn	254	
470-474, 480-486	Influenza and Pneumonia	129	
764-768 (.03), 772	Birth Injuries	83	
E800-E949	Accidents	75	
Residual 000-136	Other Infective and Parasitic Diseases	37	
550-553, 560	Hernia and Intestinal Ob- struction	24	
320	Meningitis	20	
008, 009	Entiritis and Other Diarrheal Diseases	18	
390-398, 402, 404, 410-429	Heart Disease	14	
E960-E978	Homicide	7	
140-209	Malignant Neoplasms	5	
466	Acute Bronchitis and Bron- chiocitis	5	
490, 491	Chronic and Unqualified Bronchitis	4	
430-438	Cerebrovascular Disease	3	
531-533	Peptic Ulcer	2	
580-584	Nephritis and Nephrosis	2	
210-239	Benign Neoplasms	1	
493	Asthma	1	
571	Cirrhosis of Liver	1	
E980-E999	All Other External Causes	1	
Residual 770-778	Other Diseases of Early In- fancy	881	
	All Other Diseases	324	
	TOTAL	2,561	

TABLE 2.19—Deaths from Selected Infective and Parasitic Diseases, Michigan Residents, 1973

ICDA LIST NO.	CAUSE	FREQUENCY
038	Septicemia	153
010-019	Tuberculosis	138
009	Diarrheal Disease	67
070	Infections Hepatitis	32
065	Viral Encephalitis	18
036	Meningococcal Infections	16
052	Chickenpox	7
093	Cardiovascular Syphilis	7
054	Herpes, Simplex	5
094	Syphilis of Central Nervous System	5
044	Late Effects of Acute Poliomyelitis	3
055	Measles	2
075	Infectious Mononucleosis	1
084	Malaria	1
	All Other	89
	TOTAL	544

# MARRIAGE & DIVORCE SECTION III

## Marriage and Divorce An Overview 1973

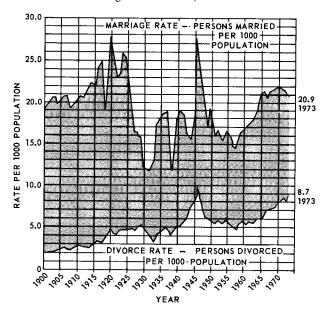
TOTAL MARRIAGES—1973	94,486
TOTAL DIVORCES AND ANNULMENTS—1973	39,4151
MARRIAGE RATE—1973	20.9
DIVORCE RATE—1973	8.71
MEDIAN AGE OF THE BRIDE-1973	22
MEDIAN AGE OF THE GROOM—1973	23
MEDIAN DURATION OF MARRIAGES ENDING IN 1973	7

<sup>&</sup>lt;sup>1</sup> Estimate: Divorces for Wayne County, September-December 1972 and Jan.-Dec. 1973 not reported.

The number of marriages and divorces occurring annually in Michigan has increased considerably since 1900. This is to be expected given a concurrent increase in population. The smallest number of marriages and the smallest number of divorces and annulments recorded this century in Michigan were recorded in 1900. The number of marriages that year was 23,295 while divorces and annulments numbered 2,435. A total of 94,486 marriages were recorded in Michigan in 1973 (the greatest number recorded this century). There were an estimated 39,415 divorces and annulments in 1973.

Since 1900 there have been noticeable shifts in the marriage rate. The rate has varied from a low of 11.6 persons married per 1,000 population (1932)

FIGURE 3.1—Marriage and Divorce Rates, Michigan Occurrences, 1900-1973



to a high of 27.7 (1920). The overall trend has been in the direction of an increasing rate over the last decade with the rate being fairly stable in the last half of the decade (Figure 3.1).

TABLE 3.1—Marriages, Divorces and Annulments, Michigan and United States Occurrences, Selected Years, 1920-1973

		MIC	UNITED STATES				
YEAR	MARRIAGES	DIVORCES AND ANNULMENTS	MARRIAGE RATE	DIVORCE AND ANNULMENT RATE	MARRIAGE RATE	DIVORCE AND ANNULMENT RATE	
1920	50,805	8,679	27.7	4.7	23.9	3,2	
1930	29,482	10,639	12.2	4.4	18.3	3.2	
1940	46,342	12,054	17.6	4.6	24.2	4.0	
1950	58,180	15,979	18.3	5.0	22.1	5,1	
1960	61,090	16,656	15.6	4.3	17.0	4.4	
1961	63,320	16,219	16.0	4.1	16.9	4.5	
1962	65,002	17,500	16.4	4.4	17.0	4.4	
1963	68,160	17,479	17.0	4.4	17.5	4.5	
1964	73,911	19,400	18.2	4.8	18.0	4.7	
1965	81,247	20,305	19.8	5.0	18.6	4.9	
1966	83,903	21,727	20.2	5.2	19.0	5.1	
1967	84,363	23,620	19.6	5.9	19.5	5.3	
1968	90,984	25,400	20.5	5.9	20.7	5.8	
1969	93,392	28,347	20.8	6.5	21.2	6.4	
1970	91,933	29,934	20.7	6.7	21.2	7.0	
1971	92,134	31,790	20.5	7.1	21.2	7.4	
1972	94,447	35,934 <sup>1</sup>	21.0	8.0	21.8 Prov.	8.0 Prov.	
1973	94,486	39,4151	20.9	8.71	20.4 Prov.	8.8 Prov.	

1 Estimate

# RESIDENCE OF COUPLES MARRYING IN MICHIGAN

In general, most of the couples marrying in Michigan are residents of the state. This pattern has not changed markedly over the last decade (Table 3.2).

The data in Table 3.2 indicate that characteristics of marriages occurring in Michigan should be representative of marriage patterns for Michigan residents.

Examination of data in Table 3.3 reveals that females marry at a younger age on the average than do males. More than twice the number of eligible females under 20 marry each year than do their eligible male counterparts. For ages 20 and over eligible males marry more frequently than their female counterparts. Note, however, that the difference in median age at marriage for males and females is only one year.

#### ORDER OF MARRIAGE

The data in Tables 3.4 and 3.5 indicate that there is a trend toward younger first marriages by males, older first marriages by females, and a younger age for remarriages among both males and females.

TABLE 3.2—Marriages by Residence Status of Bride and Groom, Michigan Occurrences, 1963 and 1973

RESIDENCE STATUS		1963	1973			
RESIDENCE STATUS	NO.	PERCENT	NO.	PERCENT		
Both Bride and Groom						
Residents	60,993	89.5	87,616	92.7		
Bride Resident, Groom						
Non-Resident	2,772	4.1	3,427	3.6		
Groom Resident, Bride						
Non-Resident	727	1.0	885	0.9		
Both Bride and Groom			1			
Non-Residents	3,668	5.4	2,557	2.7		
Residence Status, Not Stated.	_	_	1	0.0		
TOTAL	68,160	100.0	94,486	99.9		

TABLE 3.3—Number of Marriages by Age and Sex, Michigan Occurrences, 1973

A GD	NUMBER OF MARRIAGES							
AGE	MALE	FEMALE						
Under 20*	15,564	33,153						
20-24	40,978	34,701						
25-34	22,795	15,330						
35-44	7,026	5,377						
45 and Over	8,123	5,922						
Not Stated	0	3						
TOTAL	94,486	94,486						
Median Age	23	22						

<sup>\* 14</sup> and Over

TABLE 3.4—Age at First Marriage and Remarriage: Bride, Michigan Occurrences, 1963 and 1973

		19	63		1973						
AGES	TOTAL	FIRST MARRIAGE	RE- MARRIAGE	NOT STATED	TOTAL	FIRST MARRIAGE	RE- MARRIAGE	NOT STATED			
Under 20	25;222	24,842	346	34	33,153	32,658	443	52			
Percent	37.0	47.5	2.2	57.6	35.1	46.6	1.8	70.3			
20-24	25,128	22,708	2,406	14	34,701	30,249	4,441	11			
Percent	36.9	43.4	15.3	23.7	36.7	43.2	18.2	14.9			
25-29	5,330	2,790	2,537	3	10,379	5,036	5,341	2			
Percent	7.8	5.3	16.1	5.1	11.0	7.2	21.9	2.7			
30-34	2,972	857	2,114	1	4,951	1,108	3,841	2			
Percent	4.4	1.6	13.4	1.7	5.2	1.6	15.8	2.7			
35-44	4,598	735	3,861	2	5,377	623	4,751	3			
Percent	6.7	1.4	24.5	3.4	5.7	0.9	19.5	4.1			
45 and Over	4,897	402	4,490	5	5,922	401	5,517	4			
Percent	7.2	0.8	28.5	8.5	6.3	0.6	22.7	5.4			
Not Stated	13	5	8	_	3	1	2				
Percent	0.0	0.0	0.1	_	0.0	0.0	0.0	-			
TOTAL	68,160	52,339	15,762	59	94,486	70,076	24,336	74			
Percent	100.0	100.0	100.1	100.0	100.0	100.1	99.9	100.1			

TABLE 3.5—Age at First Marriage and Remarriage: Groom, Michigan Occurrences, 1963 and 1973

		190	63		1973						
AGES	TOTAL	FIRST MARRIAGE	RE- MARRIAGE	NOT STATED	TOTAL	FIRST MARRIAGE	RE- MARRIAGE	NOT STATED			
Under 20	9,914	9,860	34	20	15,564	15,468	50	46			
Percent	14.5	18.8	0.2	45.5	16.5	22.5	0.2	60.5			
20-24	31,795	30,461	1,321	13	40,978	38,436	2,525	17			
Percent	46.6	58.0	8.5	29.5	43.4	56.0	9.8	22.4			
25-29	9,945	7,631	2,309	5	16,027	10,596	5,426	5			
Percent	14.6	14.5	14.8	11.4	17.0	15.4	21.1	6.6			
30-34	4,523	2,267	2,256	_	6,768	2,289	4,477	2			
Percent	6.6	4.3	14.5	_	7.2	3.3	17.4	2.6			
35-44	5,470	1,569	3,899	2	7,026	1,167	5,858	1			
Percent	8.0	3.0	25.0	4.5	7.4	1.7	22.8	1.3			
45 and Over	6,502	746	5,752	4	8,123	726	7,392	5			
Percent	9.5	1.4	36.9	9.1	8.6	1.1	28.7	6.6			
Not Stated	11	3	8			_		_			
Percent	0.0	0.0	0.1	-	_		_	_			
TOTAL	68,160	52,537	15,579	44	94,486	68,682	25.728	76			
Percent	99.8	100.0	100.0	100.0	100.1	100.0	100.0	100.0			

### **DIVORCES AND ANNULMENTS**

The number of divorces in both Michigan and the United States has increased substantially over the last 10 years (Table 3.6).

The median duration of all marriages terminating in divorce in 1973 was 7 years. The increase in the percentage of marriages ending in divorce and lasting less than 10 years was 8.1 during this period (Table 3.6).

Changes in the divorce rate have not generally been as pronounced as those that have occurred with respect to the marriage rate. From 1963 to 1973 the rate of persons divorced per 1,000 population increased from 4.6 to 8.7. The divorce rate has varied from a low of 2.0 (1900-1901) to a high of 10.2 (1946) (Fig. 3.1).

The number of children under 18 affected by

TABLE 3.6—Divorces and Annulments by Duration of Marriage, Michigan Occurrences, 1963 and 1973

DURATION		1963		1973					
IN YEARS	NO.	PERCENT	CUMULATIVE PERCENT	NO.	PERCENT	CUMULATIVE PERCENT			
Under 1 Year	217	1.2	1.2	277	1.0	1.0			
1-4	4,997	28.6	29.8	9,447	34.2	35.2			
5-9	4,508	25.8	55.6	7,890	28.5	63.7			
10-14	2,968	17.0	72.6	3,807	13.8	77.5			
15-19	2,203	12.6	85.2	2,414	8.7	86.2			
20-24	1,343	7.7	92.9	1,759	6.4	92.6			
25-29	684	3.9	96.8	1,197	4.3	96.9			
30-34	257	1.5	98.3	450	1.6	98.5			
35-39	155	0.9	99.2	171	0.6	99.1			
40-44	65	0.4	99.6	48	0.2	99.3			
45-49	21	0.1	99.7	42	0.2	99.5			
50 and Over	15	0.1	99.8	12	0.0	99.5			
Not Stated	46	0.2	100.0	128	0.5	100.0			
TOTAL	17,479	100.0	100.0	27,6421	100.0	100.0			
Median Duration	8	000	000	7	000	000			

<sup>1</sup> Actual divorces reported. Does not include divorces which occurred in Wayne County for 1973.

divorce has increased considerably since 1963. While the percentage of divorces with no children present has actually decreased.

In 1963 cruelty was the primary grounds for divorce whereas in 1973 the majority (96.0%) of divorces were "no fault divorces."2

TABLE 3.7—Divorces and Annulments by Children Under 18 Present, Michigan Occurrences, 1963 and 1973

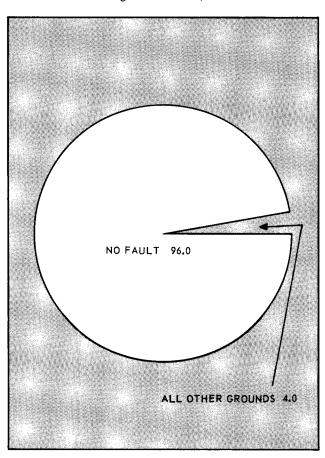
	DI	VORCES ANI	) ANNUI	MENTS		
NUMBER OF CHILDREN	1963	ESTIMATED TOTAL CHILDREN (MINIMUM)	1973	ESTIMATED TOTAL CHILDREN (MINIMUM)	PERC	ENTS 1973
Zero	7,310	0	10,553	0	41.8	38.2
One	3,663	3,663	6,547	6,547	21.0	23.7
Two	3,132	6,264	5,426	10,852	17.9	19.6
Three	1,797	5,391	2,865	8,595	10.3	10.4
Four	889	3,556	1,372	5,488	5.1	5.0
Five or More	628	3,140	832	4,160	3.6	3.0
Not Stated	60	*	47	*	0.3	0.2
TOTAL	17,479	22,014	27,6421	35,642	100.0	100.1

TABLE 3.8—Divorces and Annulments by Legal Grounds for Decrees,<sup>2</sup> Michigan Occurrences, 1963 and 1973

Inchi analisha	1	1963	1	1973
LEGAL GROUNDS	NO.	PERCENT	NO.	PERCENT
Cruelty	16,268	93.1	619	2.3
Desertion		3.8	7	0.0
Nonsupport	212	1.2	6	0.0
Fraud		0.8	111	0.4
Bigamy		0.1	11	0.0
Conviction of Crime		0.1	1	0.0
Adultery	17	0.1	1	0.0
Drunkenness		0.2		· -
No Fault		-	26,546	96.0
Other	24	0.1	162	0.6
Not Stated	92	0.5	178	0.6
TOTAL	17,479	100.0	27,6421	99.9

Actual divorces reported. Does not include divorces which occurred in Wayne County for 1973.
 Michigan's no fault divorce law went into effect January 1, 1972.

FIGURE 3.2-Divorces and Annulments by Legal Grounds, Michigan Occurrences, 1973



# REFERENCE APPENDIX SECTION IV

#### TABLE 4.1

POPULATION; LIVE BIRTHS - TOTAL AND ILLEGITIMATE; DEATHS - ALL AGES, INFANT, NEONATAL, PERINATAL, FETAL, MATERNAL, AND DEATHS DUE TO IMMATURITY; MARRIAGES; AND DIVORCES MICHIGAN, 1900 - 1973

(Deaths exclusive of fetal deaths. Perinatal deaths include deaths under 1 week and fetal deaths. Divorces include annulments.)

Year Population*		LIVE	BIRTHS				DEATHS					T
Year	Population*	Total	Illegit- imate	All Ages	Under 1 Yr	Under 28 Days	Peri- natal	Due to Immaturity	Fetal	Maternal	Marriages	Divorce
			<del></del>			20 Days	Hacai	Inmacdiffy	recar	Maternar		1
1900	2,420,982	43,699	332	32,453	6,866			620	1,325	452	23,295	2,43
1901	2,459,901	43,221	365	32,834	6,319	1		524	1,501	531	24,079	2,44
1902	2,498,820	45,546	383	31,472	5,949			608	1,793	468	25,653	2,82
1903	2,537,739	46,020	490	33,176	5,488			542	1,814	427	26,029	2,94
1904	2,576,658	47,508	562	34,494	6,419			602	1,911	436	24,918	2,80
1905	2,615,578	46,976	444	34,679	7,054			75 L	2,044	416	26,307	2,82
1906	2,654,497	58,599	1,090	37,033	7,952			830			20,307	2,02
1907									2,358	400	27,519	3,19
	2,693,416	59,029	1,041	36,701	6,906	1		855	2,358	391	27,940	3,10
1908	2,732,335	64,772	888	36,761	7,697	1 1		975	2,694	440	25,765	3,020
1909	2,771,254	64,323	1,068	36,313	7,443			1,152	2,540	405	27,353	3,516
1910	2,810,173	64,109	1,054	39,913	7,998			2,050	2,559	431	29,039	3,716
1911	2,895,997	65,756	1,083	38,007	7,131			2,223	2,716	451	29,859	4,12
1912	2,981,821	69,537	1,222	38,804	6,985	1		2,340	2,906	396	31,694	3,83
1913	3,067,645	73,058	1,227	40,827	7,659			2,480	2,953	528	33,529	
1914	3,153,469	76,761	1,192	39,906	7,431	!		2,391		507		3,97
1915	3,239,293	81,100		10,500		1			3,113		35,316	4,39
			1,363	40,441	6,943			2,207	3,357	488	35,527	4,75
1916	3,325,116	87,062	1,351	46,047	8,415			2,498	3,689	503	40,143	5,54
1917	3,410,940	89,419	1,101	47,236	7,916			2,369	3,550	586	42,791	5,62
1918	3,496,764	91,261	1,142	54,617	8,197	1		2,362	3,686	709	22,760	5,02
1919	3,582,588	84,062	1,002	45,636	7,560			2,183	3,361	578	33,260 45,579	5,49 7,46
1920	3,668,412	00.045			0 -05	!				1		1
1921	3,785,799	92,245 96,035	1,445 1,346	51,982 44,186	8,587 7,584	1		2,512 2,481	3,770 3,669	795 605	50,805 41,508	8,67 7,67
1922	3,903,186	90,042	1,180	43,817	6,730	i l		1,793	3,779	551	43,561	7,59
1923	4,020,573	92,956	1,210	49,333	7,477			1,911				0.71
1924	4,137,960	98.187	1,210		7,477	4 110	4 701	1,911	3,657	583	49,569	8,74
1925			1,443	47,304	7,088	4,119	6,791	1,970	3,703	636	49,788	9,40
	4,255,347	98,983	1,258	49,417	7,498	4,022	6,667	1,987	3,670	629	46,276	9,65
1926	4,372,734	98,289	1,669	54,080	7,620	4,054	6,773	1,986	3,816	631	39,788	9,79
1927	4,490,121	99,940	1,872	50,600	6,766	3,915	6,794	1,911	3,834	667	36,276	10,61
1928 İ	4,607,508	97,462	1,853	54,755	6,806	3,739	6,594	1,846	3,701	603	27,200	
1929	4,724,895	98,695	1,632	56,117	6,605	3,777	6,613	1,853	3,710	617	37,300 36,816	10,61 12,09
1930	4 9/2 225	00 000	1 (00	51.561								
1931	4,842,325 4,883,703	98,882 90,547	1,600	51,561 49,068	6,213 5,187	3,624 3,084	6,518 5,643	1,805	3,714	597	29,482	10,63
1932	4,925,081	85,254	1,697	49,569	4,630		5,045	1,473	3,220	539	28,856	9,50
1933		90 /90	2,0/1	49,309	4,630	2,798	5,210	1,372	2,980	493	28,552	7,88
	4,966,459	80,482	2,041	48,507	4,094	2,591	4,906	1,364	2,776	447	33,132	7,67
1934	5,007,837	83,944	2,124	50,440	4,377	2,717	4,781	1,419	2,607	450	43,241	10,12
1935	5,049,216	87,403	2,194	51,051	4,170	2,550	4,832	1,389	2,717	438	45,313	10,84
1936	5,090,594	88,457	2,157	54,777	4,479	2,647	4,726	1,395	2,625	425	47,023	11,41
1937	5,131,972	91,566	2,234	53,468	4,374	2,700	4,919	1,415	2,707	326	47,954	12,47
1938	5,173,350	96,962	2,331	50,678	4,319	2,734	4,984	1,484		345		
1939	5,214,728	94,432	2,217	52,017	3,952	2,594	4,706	1,396	2,732 2,572	280	30,105 37,725	10,64 11,58
	5 05/ 10/			1								
1940 1941	5,256,106 5,437,546	99,106 107,498	2,280 2,370	52,092 52,671	4,022 4,166	2,629 2,687	4,749 4,991	1,298	2,602	292	46,342	12,05
1942	5 520 057	107,450	2,570	52,071	4,100	2,00/		1,353	2,769	298	50,989	13,31
	5,538,857	124,068	2,532	52,738	4,606	3,091	5,581	1,575	3,067	260	51,582	14,08
1943	5,377,329	125,441	2,569	56,774	4,804	2,979	5,563	1,488	3,213	237	44,385	15,25
1944	5,377,329	113,586	3,115	54,016	4,326	2,784	5,140	1,412	2,874	198	41,678	18,35
1945	5,435,092	111,557	3,485	53,641	4,008	2,670	4,906	1,339	2,703	166	48,329	21,13
1946	5,708,415	138,572	3,908	54,856	4,541	3,323	5,978	1,735	3,168	163	78,808	29,15
1947	6,069,000	160,275	4,311	56,807	5,055	3,677	6,583					29,13
1948	6,195,000	160,275		50,007			0,303	1,953	3,422	173	71,319	21,38
1949	6,352,000	153,726 156,469	4,310 3,953	56,520 57,107	4,617 4,520	3,352 3,232	5,968 5,746	1,820	3,132	120	61,986	16,01
		100,400	3,,,,,	37,107	4,520	3,232	3,740	1,795	2,994	105	53,109	16,27
1950	6,371,766	160,055	4,425	57,567	4,214	3,043	5,781	1,096	3,095	91	58,180	15,97
1951	6,545,000	172,451	4,367	59,181	4,505	3,296	6,088	1,232	3,158	94	53,411	15.44
1952	6,708,000	177,835	4,513	59,138	4,689	3,414	6,266	1,256	3,224	82	50,487	14,92
1953	6,852,000	182,968	4,770	62,087	4,728	3,389	6,188	1,114	3,180	79	53,308	16,53
1954	7,024,000	192,104	5,610	60,706	4,795	3,560	6,415	1,298	3,249	94		
1955	7,236,000	196,294	5,883	63,087	( 072	3,707	6 301	1,270	3,249		51,243	16,28
1956	7,516,000	206,068		03,007	4,873	3,707	6,381	1,272	3,029	61	55,698	17,67
	7,310,000	200,000	6,494	64,352	5,047	3,796	6,655	1,244	3,245	84	57,068	16,22
1957	7,803,000	208,488	6,789	66,435	5,093	3,884	6,668	1,322	3,154	79	55,121	15,44
1958	7,866,000	202,690	6,816	65,899	4,980	3,789	6,516	1,208	3,101	69	55,159	14,04
1959	7,960,000	198,301	6,729	66,812	4,846	3,674	6,250	1,201	2,928	72	58,826	16,16
1960	7,823,194	195,056	7,200	67,912	4,702	3,580	6,247	1,148	3,008	75	61,090	16,65
1961	7,903,000	192,825	8,017	67,375	4,604	3,475	5,875	1,003	2,735	78	63,320	16,21
1962	7,939,000	182,790	7,998	70,049	4,367	3,251	5,669	907	2,703	56	65,002	17,50
1963	8,030,000	178,871	8,769	72,438		3,109		816				17,50
1964		175 101		72,430	4,150	3,109	5,407		2,540	71	68,160	17,47
	8,100,000	175,103	9,724	72,129	4,043	3,071	5,293	807	2,466	62	73,911	19,40
1965	8,199,283	166,464	10,888	73,665	3,936	2,909	5,139	768	2,475	54	81,247	20,30
	8,314,070	165,794	12,299	74,596	3,751	2,830	4,909	819	2,295	54	83,903	21,72
1966	8,615,000	162,756	13,403	75,360	3,595	2,714	4,693	718	2,195	52	84,363	
1966	8,675,000	159,058	14,451	76,855	2 620	2,617	4,476	487	2,277	32 44		23,62
1967		165,760	16,329	76,693	3,438 3,356	2,550	4,476	459	2,064	27	90,984 93,392	25,40 28,34
	8,734,000	103,700										
1967 1968 1969	8,734,000				3,332		, I		-,		75,572	20,54
1967 1968 1969	8,734,000 8,875,083	171,667	18,712	76,321	3,492	2,683	4,522	436	2,060	29	91,933	29,93
1967 1968 1969	8,734,000											29,93 31,79 35,93

<sup>1973 | 9,061,000 | 141,550 | 20,299 | 78,522 | 2,561 | 1,902 | 3,392 | 4900 - 1960:</sup> United States Bureau of Census April I Census counts and July 1 estimates. \*1961 - 1964: University of Michigan Population Studies Center July 1 estimates. \*1965 - 1969: Whichigan Center for Health Statistics July 1 estimate. 1970: United States Bureau of Census April 1 Census counts. \*1971 - 1973: United States Bureau of Census July 1 estimates.

Beginning with the year 1968, the category of deaths due to Immaturity is no longer considered for primary mortality coding unless it is the only cause of death entered on the certificate. Previously this category included Immaturity Unqualified plus Immaturity with mention of any other Subsidiary Condition.

Estimate

Note: For the years 1900 - 1910 and 1912, illegitimate live births also include illegitimate fetal deaths. For years prior to 1950 deaths under 1 month of age are included in deaths under 28 days. For 1910 through 1921 deaths due to immaturity also include deaths from congenital debility.

TABLE 4.2

# LIVE BIRTH RATES - TOTAL AND ILLEGITIMATE: DEATH RATES - ALL AGES, INFANT, NEONATAL, PERINATAL, MATERNAL AND DEATH RATES DUE TO IMMATURITY; FETAL DEATH RATIO: MARRIAGE AND DIVORCE RATES MICHIGAN, 1900-1973

(Birth rate, death rate for all ages, rate of persons married and rate of persons divorced per 1,000 population. Illegitimate live birth ratio, fetal death ratio, death rates under 1 year, under 28 days, and death rates due to immaturity per 1,000 live births. Maternal death rates per 10,000 live births. Perinatal death rate - number of deaths under 1 week and fetal deaths per 1,000 live births and fetal deaths.)

	LIVE B	IRTHS		T-w .	1 77.	DEATHS	1 50: 2:		1	PER	SONS
Year	Total	Illegit- imate	All Ages	Under 1 Yr	Under 28 Days	Peri- natal	Due to Immaturity	Fetal	Maternal	Married	Divorces
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	7.6 8.4 8.4 10.6 11.8 9.5 18.6 17.6 13.7	13.4 13.3 12.6 13.1 13.4 13.3 14.0 13.6 13.5	157.1 146.2 130.6 141.0 135.1 150.2 135.7 117.0 118.8 115.7			14.2 12.1 13.3 11.8 13.3 16.0 14.2 14.5 15.1 17.9	30.3 34.7 39.4 39.4 40.2 43.5 40.2 39.9 41.6 39.5	103.4 122.9 102.8 92.8 91.8 88.6 68.3 66.2 67.9 63.0	19.2 19.6 20.5 20.5 19.3 20.1 20.7 20.7 18.9 19.7	2.0 2.0 2.3 2.3 2.2 2.2 2.4 2.3 2.2 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	16.4 16.5 17.6 16.8 15.5 16.8 15.5 12.3 12.5	14.2 13.1 13.0 13.3 12.7 12.5 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			32.0 33.8 33.6 33.9 31.1 27.2 28.7 26.5 25.9 26.0	39.9 41.3 41.8 40.4 40.6 41.4 42.4 39.7 40.4	67.2 68.6 56.9 72.3 66.0 60.2 57.8 65.5 77.7 68.8	20.7 20.6 21.3 21.9 22.4 21.9 24.1 25.1 19.0 25.4	2.6 2.8 2.6 2.8 2.9 3.3 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	15.7 14.0 13.1 13.0 14.7 12.7 17.0 18.7 19.0 16.5	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	66.7 64.9 66.3 65.5 65.2 64.6	27.2 25.8 19.9 20.6 20.1 20.1 20.2 19.1 18.9 18.8	40.9 38.2 42.0 39.3 37.7 37.1 38.8 38.4 38.0 37.6	86.2 63.0 61.2 62.7 64.8 63.5 64.2 66.7 61.9 62.5	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 4.5 4.5
1930 1931 1932 1933 1934 1935 1936 1937 1938 1939	20.4 18.5 17.3 16.2 16.8 17.3 17.4 18.7	16.2 18.0 19.9 25.4 25.3 25.1 24.4 24.4 24.0 23.5	10.6 10.1 10.1 9.8 10.1 10.1 10.8 10.4 9.8	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	63.5 60.2 59.0 58.9 55.2 53.6 51.9 52.2 50.0 48.5	18.3 16.3 16.1 16.9 16.9 15.9 15.8 15.5 15.3	37.6 35.6 35.0 34.5 31.1 31.1 29.7 29.6 28.2 27.2	60.4 59.5 57.8 55.5 53.6 50.1 48.0 35.6 35.6 29.6	12.2 11.8 11.6 13.3 17.3 17.9 18.5 18.7 11.6 14.5	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 1949	18.9 19.8 22.4 23.3 21.1 20.5 24.3 26.4 24.8 24.6	23.0 22.0 20.4 20.5 27.4 31.2 28.2 26.9 28.0 25.3	9.9 9.7 9.5 10.6 10.0 9.9 9.6 9.4 9.1	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	46.7 45.3 43.9 43.2 44.1 42.9 42.2 40.2 38.0 36.0	13.1 12.6 12.7 11.9 12.4 12.0 12.5 12.2 11.8	26.3 25.8 24.7 25.6 25.3 24.2 22.9 21.4 20.4 19.1	29.5 27.7 21.0 18.9 17.4 14.9 11.8 10.8 7.8 6.7	17.6 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
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	27.6 25.3 25.4 26.1 29.2 30.0 31.5 32.6 33.6 33.9	9.0 9.0 8.8 9.1 8.6 8.7 8.6 8.5 8.4	26.3 26.1 26.4 25.8 25.0 24.8 24.5 24.4 24.6 24.4	19.0 19.1 19.2 18.5 18.5 18.9 18.4 18.6 18.7	35.4 34.7 34.6 33.2 32.8 32.0 31.8 31.5 31.7	6.8 7.1 7.1 6.1 6.8 6.5 6.0 6.3 6.0 6.1	19.3 18.3 18.1 17.4 16.9 15.4 15.7 15.1 15.3 14.8	5.7 5.5 4.6 4.3 4.9 3.1 4.1 3.8 3.4 3.6	18.3 16.3 15.1 15.6 14.6 15.4 15.2 14.1 14.0	5.0 4.7 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	36.9 41.6 43.8 49.0 55.5 65.4 74.2 82.4 90.9 98.5	8.7 8.5 8.8 9.0 8.9 9.0 9.0 8.7 8.9 8.8	24.1 23.9 23.9 23.2 23.1 23.6 22.6 22.1 21.6 20.2	18.4 18.0 17.8 17.4 17.5 17.5 17.1 16.7 16.5 15.4	31.5 30.0 30.6 29.8 29.8 30.4 29.2 28.4 27.8 26.7	5.9 5.2 5.0 4.6 4.6 4.9 4.4 3.1 2.8	15.4 14.2 14.8 14.2 14.1 14.9 13.8 13.5 13.0	3.8 4.0 3.1 4.0 3.5 3.2 3.3 3.2 2.8	15.6 16.0 16.4 17.0 18.2 19.8 20.2 19.6 21.0 21.4	4.3 4.1 4.4 4.4 4.8 5.0 5.2 5.9 5.9 6.5
1970 1971 1972 1973	19.3 18.0 16.3 15.6	109.0 117.7 133.0 143.4	8.6 8.6 8.8 8.7	20.3 19.5 19.1 18.1	15.6 14.9 14.4 13.4	26.0 25.2 24.9 23./	2.5 2.4 2.2 2.9	12.0 11.9 12.1 11.9	1.7 2.0 2.4 1.8	20.7 20.5 21.0 20.9	6.7 7.1 8.0 8.7

10.3 | 133.0 | 0.8 | 19.1 | 14.4 | 24.9 | 2.2 | 12.1 | 2.4 | 21.0 | 8.0 | 1973 | 15.6 | 143.4 | 8.7 | 18.1 | 13.4 | 23.7 | 23.9 | 11.9 | 1.8 | 20.9 | 8.7 | 8.1 | 13.4 | 23.7 | 8.1 | 13.4 | 23.7 | 8.1 | 13.4 | 23.7 | 18.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.

TABLE 4.3

REPORTED CASES OF CERTAIN COMMUNICABLE DISEASES MICHIGAN OCCURRENCES, 1900-1973

Year	Diptheria	Streptococcal Sore Throat (including Scarlet Fever)	Smallpox	Typhoid Fever	Whooping Cough	Measles	Hepatitis, Infectious and Serum	Tuberculosis (all forms)	Meningococcal Infections	Poliomyelitis	Syphilis	Gonorrhea	Chancroid
1900 1901 1902 1903 1904 1905 1906 1907 1908 1909	2,706 2,498 2,993 3,670 3,510 2,159 3,648 2,935 2,658 3,109	6,734 7,726 6,582 5,353 4,088 2,286 3,066 2,514 3,087 5,153	694 5,088 7,086 6,341 5,753 2,985 1,240 1,712 2,306 1,533	5,122 3,002 2,456 2,840 3,028 2,774 3,163 1,953 2,656 2,694	3,375 2,955 3,534 4,172 1,779 1,196 1,364 872 1,248 1,054	20,356 4,629 11,978 8,941 10,386 6,061 7,403 12,139 4,775 9,047		2,721 2,915 2,658 2,745 2,928 2,590 2,653 2,699 2,705 3,423	654 506 528 525 448 577 533 575 487 457				
1910 1911 1912 1913 1914 1915 1916 1917 1918 1919	3,433 3,762 3,294 5,505 5,149 4,386 5,625 8,499 6,128 7,896	6,501 5,177 4,533 4,140 3,769 3,402 6,932 14,322 5,944 6,269	3,319 898 1,127 1,995 1,527 1,094 1,581 3,674 5,241 2,381	3,361 2,660 2,847 2,253 2,167 1,956 2,513 1,723 1,339 1,254	1,136 1,897 1,255 929 1,822 2,258 1,837 3,211 2,563 1,829	13,934 9,639 2,834 9,185 11,356 4,438 12,143 14,472 6,726 8,885		4,415 5,254 1,958 1,920 2,566 3,648 7,076 4,856 3,655 4,231	522 478 88 165 205 107 163 75 95	104 68 78 56 49 95 598 91 121 155	5,077	7,910	186
1920 1921 1922 1923 1924 1925 1926 1927 1928 1929	10,360 12,075 8,513 7,725 6,011 3,925 5,377 4,575 3,724 4,618	10,280 10,893 9,687 12,868 12,989 12,303 12,681 11,011 10,486 14,245	4,818 4,512 1,230 2,311 4,527 784 549 1,467 1,335 2,410	1,421 1,837 1,108 982 782 962 583 581 390 310	7,171 6,696 5,642 7,617 4,364 7,576 8,776 6,818 9,700 9,340	22,364 3,043 12,107 30,041 18,290 10,332 39,946 8,303 27,039 18,040		4,994 5,708 5,573 5,471 5,570 5,785 5,387 5,406 5,885 6,248	203 173 159 186 157 128 96 138 276	67 483 43 39 647 99 107 282 77 180	8,117 7,421 7,900 10,480 13,000 14,668 14,872 15,713 15,323 16,606	11,463 9,774 9,717 9,597 10,490 10,660 10,707 9,318 8,592 9,661	262 153 90 235 183 104 103 107 100 333
1930 1931 1932 1933 1934 1935 1936 1937 1938 1939	3,206 1,831 1,188 1,152 614 645 661 842 619 452	11,174 13,023 15,255 16,419 19,238 11,849 12,650 24,798 18,362 15,836	2,375 915 222 46 49 16 32 152 274 371	504 424 513 453 486 355 287 241 285	7,937 11,448 13,091 11,720 11,255 13,427 14,287 11,426 14,563 8,997	28,129 6,212 42,129 21,654 6,528 79,061 2,453 6,154 79,400 12,948		5,128 6,132 7,103 6,624 5,264 4,642 5,157 6,469 6,335 6,119	901 293 129 86 53 113 120 87 69 46	208 1,137 112 93 230 614 152 421 59	16,538 14,662 11,969 7,691 6,483 6,416 6,401 8,708 14,684 13,144	8,554 7,843 6,963 6,447 6,188 6,372 6,460 7,072 7,046 6,364	163 170 140 85 132 110 133 244 341 286
1940 1941 1942 1943 1944 1945 1946 1947 1948 1949	264 242 243 281 419 630 385 238 126 119	10,366 8,756 7,503 5,044 8,963 9,304 5,977 4,834 5,934 8,852	76 114 17 18 10 16 3 1	120 147 74 115 78 59 85 77 49	11,757 16,512 11,602 12,091 4,049 5,339 8,116 10,472 2,668 4,157	20,206 70,748 8,569 51,764 26,711 6,328 42,261 9,574 42,952 20,279	134 34 14 9 28	6,063 5,371 5,720 6,546 6,419 5,471 5,548 6,470 6,109 5,953	49 49 66 757 857 270 185 113 107	1,228 270 162 255 884 215 1,091 646 775 2,909	9,999 11,370 12,461 15,933 17,288 16,046 18,051 15,276 12,100 8,740	7,650 8,767 8,753 9,526 11,987 12,565 12,635 10,989 9,448 9,427	218 359 276 260 185 244 206 216 465 336
1950 1951 1952 1953 1954 1955 1956 1957 1958 1959	84 48 45 12 57 59 220 130 6	4,665 8,181 8,325 5,885 5,142 5,880 7,349 7,193 5,380 9,452	1	43 33 53 31 30 24 56 12 18 8	9,184 3,156 1,992 2,932 5,620 4,249 1,907 1,363 1,233 3,001	38,245 15,227 32,941 23,334 40,725 23,882 41,966 19,070 41,448 12,234	48 325 283 868 1,419 1,244 814 657 688 1,136	5,538 6,144 6,152 5,643 5,764 5,488 5,515 5,011 5,587 4,743	133 138 169 151 150 170 182 175 228 141	2,029 1,463 3,912 2,346 2,168 1,177 656 498 1,228 448	8,830 6,532 7,377 5,619 4,686 4,865 4,785 4,571 4,267 3,421	8,678 8,494 7,691 8,790 9,940 10,306 9,598 8,428 8,621 8,033	202 187 58 43 47 58 52 97 178 136
1960 1961 1962 1963 1964 1965 1966 1967 1968 1969	9 3 4 5 1 - 1	9,287 8,347 8,116 11,964 17,228 14,622 13,862 13,269 10,101 9,763	-	14 7 12 14 13 7 7 8 1 6	1,129 639 1,756 1,410 957 612 653 1,058 429	36,161 29,391 25,303 48,752 30,897 28,132 15,251 1,048 353 401	2,113 4,607 3,280 2,661 2,472 2,625 2,589 1,915 2,356 3,359	4,127 3,838 3,474 3,298 3,047 3,069 3,259 2,951 2,618 2,133	169 253 139 104 80 107 135 76 94 114	88 40 21 18 3 1 1 3 3	3,647 3,309 4,331 5,512 5,220 5,638 5,842 5,581 5,351 3,809	8,372 9,505 11,654 11,043 12,028 14,319 15,424 17,088 18,153 18,534	112 102 75 98 106 95 114 78 105 103
1970 1971 1972 1973	- i 1	11,863 11,244 13,304 24,467	- - -	14 10 7 14 r to 1952	195 140 116 86	1,834 2,659 2,353 4,552	4,594 4,828 4,322 3,872	1,992 1,789 1,632 1,473	69 64 55 54	2	3,920 4,800 4,891 4,375	20,359 22,260 24,750 31,086	118 93 175 217

1973 - 24,467 - 14 86 4,552 3,872 1,473
Note: Meningococcal infections - Prior to 1952 data were for meningococcic meningitis.
Tuberculosis, syphilis, gonorrhea and chancroid are resident cases.

TABLE 4.4 CASE RATES OF CERTAIN REPORTED COMMUNICABLE DISEASES MICHIGAN OCCURRENCES, 1900-1973

(Rates per 100,000 Population)

Year	Diptheria	Streptococcal Sore Throat (including Scarlet Fever)	Smallpox	Typhoid Fever	Whooping Cough	Measles	Infectious Hepatitis & Serum	Tuberculosis (All Forms)	Meningococal Infections	Poliomyelitis	Syphilis	Gonorthea	Chancroid
1900 1901 1902 1903 1904 1905 1906 1907 1908 1909	111.8 101.5 119.8 144.6 136.2 82.5 137.4 109.0 97.3 112.2	278.2 314.1 263.4 210.9 158.7 87.4 115.5 93.3 113.0 185.9	28.7 206.8 283.6 249.9 223.3 114.1 46.7 63.6 84.4 55.3	211.6 122.0 98.3 111.9 117.5 106.1 119.2 72.5 97.2 97.2	139.4 120.1 141.4 164.4 69.0 45.7 51.4 32.4 45.7 38.0	840.8 188.2 479.3 352.3 403.1 231.7 278.9 450.7 174.8 326.5		112.4 118.5 106.4 108.2 113.6 99.0 99.9 100.2 99.0 123.5	27.0 20.6 21.1 20.7 17.4 22.1 20.1 21.3 17.8 16.5				
1910 1911 1912 1913 1914 1915 1916 1917 1918 1919	122.2 129.9 110.5 179.5 163.3 135.4 169.2 249.2 175.2 220.4	231.3 178.8 152.0 135.0 119.5 105.0 208.5 419.9 170.0 175.0	118.1 31.0 37.8 65.0 48.4 33.8 47.5 107.7 149.9 66.5	119.6 91.8 95.5 73.4 68.7 60.4 75.6 50.5 38.3 35.0	40.4 65.5 42.1 30.3 57.8 69.7 55.2 94.1 73.3 51.1	495.8 332.8 95.0 299.4 360.1 137.0 365.2 424.3 192.4 248.0		157.1 181.4 65.7 62.6 81.4 112.6 212.8 142.4 104.5 118.1	18.6 16.5 3.0 5.4 6.5 3.3 4.9 2.2 2.7 2.1	3.7 2.3 2.6 1.8 1.6 2.9 18.0 2.7 3.5 4.3	141.7	220.8	5.2
1920 1921 1922 1923 1924 1925 1926 1927 1928	282.4 318.9 218.1 192.1 145.3 92.2 123.0 101.9 80.8 97.7	280.2 287.7 248.2 320.1 313.9 289.1 290.0 245.2 227.6 301.5	131.3 119.2 31.5 57.5 109.4 18.4 12.6 32.7 29.0 51.0	38.7 48.5 28.4 24.4 18.9 22.6 13.3 12.9 8.5 6.6	195.5 176.9 144.5 189.5 105.5 178.0 200.7 151.8 210.5	609.6 80.4 310.2 747.2 442.0 242.8 913.5 184.9 586.9 381.8		136.1 150.8 142.8 136.1 134.6 135.9 123.2 120.4 127.7 132.2	5.5 4.6 4.1 4.6 3.8 3.0 2.2 3.1 6.0 39.4	1.8 12.8 1.1 1.0 15.6 2.3 2.4 6.3 1.7 3.8	221.3 196.0 202.4 260.7 314.2 344.7 340.1 349.9 332.6 351.4	312.5 258.2 248.9 238.7 253.5 250.5 244.9 207.5 186.5 204.5	7.1 4.0 2.3 5.8 4.4 2.4 2.4 2.2 7.0
1930 1931 1932 1933 1934 1935 1936 1937 1938 1939	66.2 37.5 24.1 23.2 12.3 12.8 13.0 16.4 12.0 8.7	230.8 266.7 309.7 330.6 384.2 234.7 248.5 483.2 354.9 303.7	49.0 18.7 4.5 0.9 1.0 0.3 0.6 3.0 5.3 7.1	10.4 8.7 10.4 9.1 9.7 7.0 5.6 4.7 5.5 3.4	163.9 234.4 265.8 236.0 224.8 265.9 280.7 222.6 281.5 172.5	580.9 127.2 855.4 436.0 130.4 1,565.8 48.2 119.9 1,534.8 248.3		105.9 125.6 144.2 133.4 105.1 91.9 101.3 126.1 122.5 117.3	18.6 6.0 2.6 1.7 1.1 2.2 2.4 1.7 1.3 0.9	4.3 23.3 2.3 1.9 4.6 12.2 3.0 8.2 1.1	341.5 300.2 243.0 154.9 129.5 127.1 125.7 169.7 283.8 252.0	176.6 160.6 141.4 129.8 123.6 126.2 126.9 137.8 136.2 122.0	3.4 3.5 2.8 1.7 2.6 2.2 2.6 4.8 6.6 5.5
1940 1941 1942 1943 1944 1945 1946 1947 1948 1949	5.0 4.5 4.4 5.2 7.8 11.6 6.7 3.9 2.0 1.9	197.2 161.0 135.5 93.8 166.7 171.2 104.7 79.6 95.8 139.4	1.4 2.1 0.3 0.3 0.2 0.3 0.1 0.0	2.3 2.7 1.3 2.1 1.5 1.1 1.5 1.3 0.8	223.7 303.7 209.5 224.8 75.3 98.2 142.2 172.5 43.1 65.4	384.4 1,301.1 154.7 962.6 496.7 116.4 740.3 157.8 693.3 319.3	2.5 0.6 0.2 0.1	115.3 98.8 103.3 121.7 119.4 100.7 97.2 106.6 98.6 93.7	0.9 0.9 1.2 14.1 15.9 5.0 3.2 1.9 1.7	23.4 5.0 2.9 4.7 16.4 4.0 19.1 10.6 12.5 45.8	190.2 209.1 225.0 296.3 321.5 295.2 316.2 251.7 195.3 137.6	145.5 161.2 158.0 177.1 222.9 231.2 221.3 181.1 152.5 148.4	4.1 6.6 5.0 4.8 3.4 4.5 3.6 7.5 5.3
1950 1951 1952 1953 1954 1955 1956 1957 1958 1959	1.3 0.7 0.7 0.2 0.8 0.8 2.9 1.7 0.1	73.2 125.0 124.1 85.9 73.2 81.3 97.8 92.2 68.4 118.7	-	0.7 0.5 0.8 0.5 0.4 0.3 0.7 0.2 0.2	144.1 48.2 29.7 42.8 80.0 58.7 25.4 17.5 15.7 37.7	600.2 232.7 491.1 340.5 579.8 330.0 558.4 244.4 526.9 153.7	0.8 5.0 4.2 12.7 20.2 17.2 10.8 8.4 8.7 14.3	86.9 93.9 91.7 82.4 82.1 75.8 73.4 64.2 71.0 59.6	2.1 2.1 2.5 2.2 2.1 2.3 2.4 2.2 2.9 1.8	31.8 22.4 58.3 34.2 30.9 16.3 8.7 6.4 15.6 5.6	138.6 99.8 110.0 82.0 66.7 67.2 63.7 58.6 54.2 43.0	136.2 129.8 114.7 128.3 141.5 142.4 127.7 108.0 109.6 100.9	3.2 2.9 0.9 0.6 0.7 0.8 0.7 1.2 2.3
1960 1961 1962 1963 1964 1965 1966 1967 1968 1969	0.1 0.0 0.1 0.1 0.0 -	118.7 105.6 102.2 149.0 212.7 178.3 166.7 154.0 116.4 111.8	-	0.2 0.1 0.2 0.2 0.2 0.1 0.1 0.1	14.4 8.1 22.1 17.6 11.8 7.5 7.9 12.3 4.9 2.2	462.2 371.9 318.7 607.1 381.4 343.1 183.4 12.2 4.1 4.6	27.0 58.3 41.3 33.1 30.5 32.0 31.1 22.2 27.2 38.5	52.8 48.6 43.8 41.1 37.6 37.4 39.2 34.2 30.2 24.4	2.2 3.2 1.8 1.3 1.0 1.3 1.6 0.9 1.1	1.1 0.5 0.3 0.2 0.0 0.0 0.0 0.0	46.6 41.9 54.6 68.6 64.4 68.8 70.3 64.8 61.7 43.6	107.0 120.3 146.8 137.5 148.5 174.6 185.5 198.4 209.3 212.2	1.4 1.3 0.9 1.2 1.3 1.2 1.4 0.9 1.2
1970 1971 1972 1973	0.0	133.7 125.0 147.6 270.0	-	0.2 0.1 0.1 0.2	2.2 1.6 1.3 0.9	20.7 29.6 26.1 50.2	51.8 53.7 48.0 42.7	22.4 19.9 18.1 16.3	0.8 0.7 0.6 0.6	0.0	44.2 53.4 54.3 48.3	229.4 247.4 274.6 343.1	1.3 1.0 1.9 2.4

TABLE 4.5 NUMBER OF DEATHS AND DEATH RATES FOR CERTAIN COMMUNICABLE DISEASES MICHIGAN RESIDENTS, 1900-1973 (Rates per 100,000 Population)

Year	Dipth	eria	Incl.	. Sore oat Scarlet		allpox	Typh			ooping Cough	Mea	sles		f the ratory tem		rculosis forms)	Polio	myelitís	Sypi	hilis*	Gono	rrhea
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
1900 1901 1902 1903 1904	529 502 504 686 515	21.9 20.4 20.2 27.0 20.0	272 312 277 200 210	11.2 12.7 11.1 7.9 8.1	9 27 42 29 26	0.4 1.1 1.7 1.1 1.0	869 645 608 606 641	35.9 26.2 24.3 23.9 24.9	208 163 289 383 148	8.6 6.6 11.6 15.1 5.7	342 79 238 176 194	14.1 3.2 9.5 6.9 7.5	2,018 2,152 2,088 2,155 2,306	83.4 87.5 83.6 84.9 89.5	2,500 2,548 2,462 2,562 2,761	103.3 103.6 98.5 101.0 107.2			88 114 130 101	3.6 4.6 5.2 4.0		
1905 1906 1907 1908 1909	478 472 421 343 395	18.3 17.8 15.6 12.6 14.3	123 227 159 194 275	4.7 8.6 5.9 7.1 9.9	74 3 8 11 4	2.8 0.1 0.3 0.4 0.1	636 721 594 687 653	24.3 27.2 22.1 25.1 23.6	131 469 223 305 217	5.0 17.7 8.3 11.2 7.8	123 251 256 121 270	4.7 9.5 9.5 4.4 9.7	2,288 2,303 2,338 2,249 2,237	87.5 86.8 86.8 82.3 80.7	2,732 2,737 2,728 2,706 2,629	104.4 103.1 101.3 99.0 94.9			89 89 94 118 127	3.5 3.4 3.6 4.5 4.8		
1910 1911 1912 1913 1914	495 473 465 676 507	17.6 16.3 15.6 22.0 16.1	297 208 186 283 177	10.6 7.2 6.2 9.2 5.6	121 7 3 5	4.3 0.2 0.1 0.2 0.1	654 551 534 538 400	23.3 19.0 17.9 17.5 12.7	318 254 252 292 304	11.3 8.8 8.5 9.5 9.6	251 200 118 258 180	8.9 6.9 4.0 8.4 5.7	2,273 2,284 2,289 2,243 2,325	80.9 78.9 76.8 73.1 73.7	2,756 2,766 2,744 2,703 2,799	98.1 95.5 92.0 88.1 88.8	52 55 48 43 41	1.9 1.9 1.7 1.5	65 104 90 136 160	2.3 3.6 3.1 4.6 5.3		
1915 1916 1917 1918 1919	354 507 851 686 764	10.9 15.2 24.9 19.6 21.3	107 177 340 181 179	3.3 5.3 10.0 5.2 5.0	5 2 9 18 10	0.2 0.1 0.3 0.5 0.3	353 424 386 337 272	10.9 12.8 11.3 9.6 7.6	236 228 360 496 172	7.3 6.9 10.6 14.2 4.8	101 363 259 270 183	3.1 10.9 7.6 7.7 5.1	2,527 2,573 2,779 3,059 2,620	78.0 77.4 81.5 87.5 73.1	2,986 3,070 3,310 3,612 3,127	92.2 92.3 97.0 103.3 87.3	36 141 44 58 80	1.2 4.6 1.4 1.8 2.2	163 206 224 290 299	5.3 6.7 7.1 9.1 8.2		
1920 1921 1922 1923 1924	888 954 620 675 470	24.2 25.2 15.9 16.8 11.4	305 334 217 304 265	8.3 8.8 5.6 7.6 6.4	14 12 20 13 226	0.4 0.3 0.5 0.3 5.5	297 285 192 202 149	8.1 7.5 4.9 5.0 3.6	511 316 232 323 169	13.9 8.3 5.9 8.0 4.1	436 58 232 258 221	11.9 1.5 5.9 6.4 5.3	2,645 2,285 2,232 2,410 2,474	72.1 60.4 57.2 59.9 59.8	3,149 2,736 2,654 2,837 2,952	85.8 72.3 68.0 70.6 71.3	30 100 21 18 116	0.8 2.6 0.5 0.5 3.0	314 226 186 262 271	8.4 5.9 4.7 6.8 7.0	14 6 5 13	0.4 0.2 0.1 0.3
1925 1926 1927 1928 1929	358 677 516 384 498	8.4 15.5 11.5 8.3 10.5	208 235 168 178 145	4.9 5.4 3.7 3.9 3.1	22 4 - 2 9	0.5 0.1 0.0 0.2	157 119 94 83 81	3.7 2.7 2.1 1.8 1.7	260 355 201 219 255	6.1 8.1 4.5 4.8 5.4	69 577 67 303 146	1.6 13.2 1.5 6.6 3.1	2,410 2,601 2,514 2,647 2,685	56.6 59.5 56.0 57.4 56.8	2,830 3,041 2,952 3,108 3,140	66.5 69.5 65.7 67.5 66.5	31 34 69 27 50	0.7 0.8 1.5 0.6 1.1	282 327 305 384 397	6.6 7.5 6.8 8.4 8.4	27 12 16 19	0.6 0.3 0.4 0.4 0.4
1930 1931 1932 1933 1934	299 172 106 112 38	6.2 3.5 2.2 2.3 0.8	130 122 112 157 171	2.7 2.5 2.3 3.2 3.4	9 4 1 -	0.2 0.1 0.0	87 73 56 50 65	1.8 1.5 1.1 1.0 1.3	176 190 199 153 141	3.6 3.9 4.0 3.1 2.8	231 28 183 111 36	4.8 0.6 3.7 2.2 0.7	2,443 2,263 2,101 1,996 1,909	50.5 46.3 42.7 40.2 38.1	2,912 2,660 2,463 2,348 2,199	60.1 54.5 50.0 47.3 43.9	39 108 23 5 25	0.8 2.2 0.5 0.1 0.5	395 361 377 327 402	8.2 7.4 7.7 6.6 8.0	12 3 2 7 10	0.2 0.1 0.0 0.1 0.2
1935 1936 1937 1938 1939	58 52 72 44 25	1.1 1.0 1.4 0.9 0.5	98 114 148 87 69	1.9 2.2 2.9 1.7 1.3	1 -	0.0	34 37 29 23 25	0.7 0.7 0.6 0.4 0.5	132 107 132 116 76	2.6 2.1 2.6 2.2 1.5	184 12 11 100 29	3.6 0.2 0.2 1.9 0.6	1,741 1,816 1,860 1,633 1,651	34.5 35.7 36.2 31.6 31.7	2,044 2,100 2,119 1,866 1,881	40.5 41.3 41.3 36.1 36.1	32 21 51 10 40	0.6 0.4 1.0 0.2 0.8	393 394 401 401 389	7.8 7.7 7.8 7.8 7.5	3 6 8 8	0.1 0.1 0.2 0.2
1940 1941 1942 1943 1944	20 18 24 21 32	0.4 0.3 0.4 0.4 0.6	41 32 23 11 7	0.8 0.6 0.4 0.2 0.1	1 1 - - 1	0.0	11 14 5 9 7	0.2 0.3 0.1 0.2 0.1	59 91 72 101 33	1.1 1.7 1.3 1.9 0.6	19 65 8 89 49	0.4 1.2 0.1 1.7 0.9	1,547 1,532 1,630 1,588 1,544	29.4 28.2 29.4 29.5 28.7	1,752 1,723 1,827 1,802 1,748	33.3 31.7 33.0 33.5 32.5	72 18 10 27 45	1.4 0.3 0.2 0.5 0.8	591 537 559 579 543	11.2 9.9 10.1 10.8 10.1	3 1 7 3 2	0.0 0.0 0.1 0.0 0.0
1945 1946 1947 1948 1949	46 27 23 8 11	0.8 0.5 0.4 0.1 0.2	9 3 6 1 4	0.2 0.1 0.1 0.0 0.1	-	-	3 6 5 4	0.1 0.1 0.1 0.1	36 44 63 9 22	0.7 0.8 1.0 0.1 0.3	10 47 5 43 33	0.2 0.8 0.1 0.7 0.5	1,591 1,645 1,483 1,395 1,254	29.3 28.8 24.4 22.5 19.7	1,758 1,843 1,643 1,561 1,400	32.3 32.3 27.1 25.2 22.0	20 89 29 54 216	0.4 1.6 0.5 0.9 3.4	527 547 502 512 455	9.7 9.6 8.3 8.3 7.2	2 - 3 -	0.0
1950 1951 1952 1953 1954	2 6 2 2 3	0.0 0.1 0.0 0.0	1 - - 1 3	0.0	- - - -		5 1 - -	0.1	28 21 8 11 17	0.4 0.3 0.1 0.2 0.2	28 11 17 16 17	0.4 0.2 0.3 0.2 0.2	1,134 1,049 689 536 471	17.8 16.0 10.3 7.8 6.7	1,270 1,154 775 607 530	19.9 17.6 11.6 8.9 7.5	128 67 213 108 89	2.0 1.0 3.2 1.6 1.3	325 299 174 182 139	5.1 4.6 2.6 2.7 2.0	1 1 2 1 2	0.0 0.0 0.0 0.0
1955 1956 1957 1958 1959	1 6 1 -	0.0 0.1 0.0 2	1 3 - 2	0.0	-	-	1 - - 1	0.0	8 6 6 1 5	0.1 0.1 0.1 0.0 0.1	10 26 23 18 11	0.1 0.3 0.3 0.2 0.1	435 426 403 357 335	6.0 5.7 5.2 4.5 4.2	477 466 442 395 370	6.6 6.2 5.7 5.0 4.6	32 22 15 37 17	0.4 0.3 0.2 0.5 0.2	115 114 105 84 84	1.6 1.5 1.3 1.1	1 4 4 8 4	0.0 0.1 0.1 0.1
1960 1961 1962 1963 1964	2 1 2 -	0.0	1 1 1 -	0.0 0.0 0.0	- - - -	-	-	-	1 2 2 -	0.0	17 13 8 27 11	0.2 0.2 0.1 0.2 0.1	364 307 307 276 288	4.7 3.9 3.9 3.4 3.6	390 332 331 299 315	5.0 4.2 4.2 3.7 3.9	2 1 1	0.1 - 0.0 0.0 0.0	79 71 94 72 66	1.0 0.9 1.2 0.9 0.8	7 7 3 1 3	0.1 0.1 0.0 0.0
1965 1966 1967 1968 1969	1 -	0.0	- - 1	0.0	-	-	- - -	-	•	-	5 7 3 -	0.1 0.1 0.0	261 284 206 203 147	3.2 3.4 2.4 2.3 1.7	285 301 226 262 201	3.5 3.6 2.6 3.0 2.3	- - 2 -	0.0	65 63 44 29 26	0.8 0.8 0.5 0.3 0.3	2 - 1 - 1	0.0
1970 1971 1972 1973	-	-	2 4 1	0.0 0.0 0.0	-	-	- - -	-	- - 1	0.0	1 - - 2	0.0	134 122 111 101	1.5 1.4 1.2 1.1	180 173 157 138	2.0 1.9 1.7 1.5	- 1 3	0.0	17 18 12 12	0.2 0.2 0.1 0.1	2	0.0

<sup>\*</sup>From 1901 through 1920, syphilis includes all other veneral diseases, beginning with 1968 excludes aortic aneurysms not specified as syphilitic.

TABLE 4.6 NUMBER OF DEATHS AND DEATH RATES BY SPECIFIED CAUSES MICHIGAN RESIDENTS, 1900-1973 (Rates per 100,000 Population)

Year	He: Dise	art ease	Cano (all f		Vascular Affecting Nervous	Central	Acci (all	dents forms)	Mo Veh: Acci	cle	Dia	<b>s</b> betes	Pneum	onia	Immati	ırity	Gener Arter sclere	io-
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
1900 1901 1902 1903 1904	2,836 3,040 3,302 3,702 3,981	117.1 123.6 132.1 145.9 154.5	1,460 1,484 1,483 1,694 1,728	60.3 60.3 59.3 66.8 67.1	2,136 2,147 2,097 2,321 2,431	88.2 87.3 83.9 91.5 94.3	1,740 1,901 1,796 2,017 2,035	71.9 77.3 71.9 79.5 79.0			224 264 289 265 298	9.3 10.7 11.6 10.4 11.6	2,388 2,901 2,637 2,607 2,646	98.6 117.9 105.5 102.7 102.7	620 524 608 542 632	25.6 21.3 24.3 21.4 24.5		
1905 1906 1907 1908 1909	3,715 3,933 4,269 4,202 4,354	142.0 148.2 158.5 153.8 157.1	1,693 1,736 1,747 1,921 1,948	64.7 65.4 64.9 70.3 70.3	2,405 2,554 2,690 2,630 2,739	91.9 96.2 99.9 96.3 98.8	2,034 2,126 2,209 2,036 1,903	77.8 80.1 82.0 74.5 68.7			267 311 352 359 374	10.2 11.7 13.1 13.1 13.5	2,417 2,621 3,018 2,313 2,265	92.4 98.7 112.0 84.7 81.7	751 830 855 975 1,152	28.7 31.3 31.7 35.7 41.6		
1910 1911 1912 1913 1914	4,581 4,639 5,324 4,908 5,124	163.0 160.2 178.5 160.0 162.5	2,105 2,142 2,291 2,388 2,414	74.9 74.0 76.8 77.8 76.6	3,091 2,916 2,707 2,834 2,993	110.0 100.7 90.8 92.4 94.9	2,158 2,121 2,005 2,333 2,108	76.8 73.2 67.2 76.1 66.8	49 44 75 132 120	1.7 1.5 2.5 4.3 3.8	398 373 448 483 503	14.2 12.9 15.0 15.7 16.0	2,785 2,763 2,796 3,082 2,909	99.1 95.4 93.8 100.5 92.2	2,050 2,223 2,340 2,480 2,391	72.9 76.8 78.5 80.8 75.8		
1915 1916 1917 1918 1919	5,538 5,819 6,103 6,091 5,651	171.0 175.0 178.9 174.2 157.7	2,567 2,710 2,765 2,931 2,990	79.2 81.5 81.1 83.8 83.5	3,384 3,559 3,703 3,493 3,483	104.5 107.0 108.6 99.9 97.2	2,219 2,853 2,925 2,599 2,612	68.5 85.8 85.8 74.3 72.9	190 257 335 279 328	5.9 7.7 9.8 8.0 9.2	498 500 569 591 559	15.4 15.0 16.7 16.9 15.6	3,229 3,698 4,455 7,238 4,081	99.7 111.2 130.6 207.0 113.9	2,207 2,498 2,369 2,362 2,183	68.1 75.1 69.5 67.5 60.9		
1920 1921 1922 1923 1924	6,732 6,176 6,897 7,266 6,985	183.5 163.1 176.7 180.7 168.8	3,158 3,373 3,481 3,545 3,824	86.1 89.1 89.2 88.2 92.4	3,876 3,931 4,041 4,420 4,241	105.7 103.8 103.5 109.9 102.5	2,646 2,476 2,475 2,826 3,090	72.1 65.4 63.4 70.3 74.7	397 403 529 677 1,001	10.8 10.6 13.6 16.8 24.2	577 586 650 635 661	15.7 15.5 16.7 15.8 16.0	5,794 2,849 3,728 4,719 3,332	157.9 75.3 95.5 117.4 80.5	2,512 2,481 1,793 1,911 1,970	68.5 65.5 45.9 47.5 47.6		
1925 1926 1927 1928 1929	7,540 8,281 8,780 9,786 10,185	177.2 189.4 195.5 212.4 215.6	3,858 4,087 4,264 4,381 4,571	90.7 93.5 95.0 95.1 96.7	4,623 4,663 4,378 4,718 4,694	108.6 106.6 97.5 102.4 99.3	3,278 3,557 3,634 3,704 3,913	77.0 81.3 80.9 80.4 82.8	1,103 1,221 1,389 1,429 1,552	25.9 27.9 30.9 31.0 32.8	746 743 819 905 935	17.5 17.0 18.2 19.6 19.8	3,294 4,440 3,543 4,518 4,216	77.4 101.5 78.9 98.1 89.2	1,987 1,986 1,911 1,846 1,853	46.7 45.4 42.6 40.1 39.2		
1930 1931 1932 1933 1934	9,947 10,206 11,162 11,509 11,824	205.4 209.0 226.6 231.7 236.1	4,572 4,763 4,935 5,055 5,370	94.4 97.5 100.2 101.8 107.2	4,533 4,388 4,518 4,318 4,485	93.6 89.8 91.7 86.9 89.6	3,805 3,630 3,179 3,304 3,774	78.6 74.3 64.5 66.5 75.4	1,572 1,516 1,229 1,278 1,511	32.5 31.0 25.0 25.7 30.2	880 950 1,121 1,103 1,100	18.2 19.5 22.8 22.2 22.0	3,321 2,883 3,238 2,756 3,466	68.6 59.0 65.7 55.5 69.2	1,805 1,473 1,372 1,364 1,419	37.3 30.2 27.9 27.5 28.3	1,047 1,005 948 966 914	21.6 20.6 19.2 19.5 18.3
1935 1936 1937 1938 1939	12,456 13,374 13,233 13,887 14,898	246.7 262.7 257.8 268.4 285.7	5,399 5,752 5,732 6,059 6,296	106.9 113.0 111.7 117.1 120.7	4,420 4,705 4,378 4,543 4,415	87.5 92.4 85.3 87.8 84.7	3,771 5,246 4,580 3,608 3,761	74.7 103.1 89.2 69.7 72.1	1,676 1,924 2,187 1,490 1,553	33.2 37.8 42.6 28.8 29.8	1,228 1,266 1,255 1,283 1,360	24.3 24.9 24.5 24.8 26.1	3,801 4,096 4,098 2,869 2,803	75.3 80.5 79.8 55.5 53.8	1,389 1,395 1,415 1,484 1,396	27.5 27.4 27.6 28.7 26.8	897 997 1,168 869 918	17.8 19.6 22.8 16.8
1940 1941 1942 1943 1944	15,480 15,761 16,016 17,816 17,004	294.5 289.8 289.2 331.3 316.2	6,513 6,551 6,646 7,127 7,277	123.9 120.5 120.0 132.5 135.3	4,690 4,698 4,841 5,311 4,954	89.2 86.4 87.4 98.8 92.1	3,961 4,450 3,685 3,480 3,350	75.4 81.8 66.5 64.7 62.3	1,743 2,156 1,368 1,025 1,103	33.2 39.6 24.7 19.1 20.5	1,408 1,382 1,448 1,535 1,554	26.8 25.4 26.1 28.5 28.9	2,478 2,235 2,349 2,931 2,369	47.1 41.1 42.4 54.5 44.1	1,298 1,353 1,575 1,488 1,412	24.7 24.9 28.4 27.7 26.3	941 906 1,015 1,092 980	17.9 16.7 18.3 20.3 18.2
1945 1946 1947 1948 1949	17,421 17,691 18,412 18,726 19,137	320.5 309.9 303.4 302.3 301.3	7,486 7,845 8,188 8,336 8,697	137.7 137.4 134.9 134.6 136.9	5,295 5,224 5,426 5,272 5,438	97.4 91.5 89.4 85.1 85.6	3,432 3,776 3,848 4,017 3,838	63.1 66.1 63.4 64.8 60.4	1,199 1,506 1,499 1,545 1,493	22.1 26.4 24.7 24.9 23.5	1,561 1,530 1,618 1,771 1,884	28.7 26.8 26.7 28.6 29.7	1,932 1,891 2,089 1,853 1,885	35.5 33.1 34.4 29.9 29.7	1,339 1,735 1,953 1,820 1,795	24.6 30.4 32.2 29.4 28.3	970 933 1,031 1,085 1,135	17.8 16.3 17.0 17.5 17.9
1950 1951 1952 1953 1954	20,521 21,118 21,247 22,425 22,362	322.1 322.6 316.8 327.3 318.4	8,685 9,187 9,256 9,904 10,105	136.3 140.4 138.0 144.5 143.9	7,045	100.1 100.5 97.2 102.8 99.1	3,783 3,916 3,901 4,375 3,948	59.4 59.8 58.2 63.8 56.2	1,680 1,806 1,815 2,051 1,916	26.4 27.6 27.1 29.9 27.3	1,438 1,374 1,339 1,419 1,469	22.6 21.0 20.0 20.7 20.9	1,358 1,619 1,571 1,538 1,380	21.3 24.7 23.4 22.4 19.6	1,096 1,232 1,256 1,114 1,298	17.2 18.8 18.7 16.3 18.5	1,296 1,312 1,294 1,270 1,170	20.3 20.0 19.3 18.5 16.7
1955 1956 1957 1958 1959	23,440 24,661 25,369 25,215 25,323	323.9 328.1 325.1 320.6 318.1	10,297 10,489 10,810 10,946 11,113	142.3 139.6 138.5 139.2 139.6	7,547	101.7 94.7 97.8 95.9 96.7	4,213 3,925 3,643 3,306 3,666	58.2 52.2 46.7 42.0 46.1	2,129 1,826 1,680 1,466 1,587	29.4 24.3 21.5 18.6 19.9	1,415 1,443 1,510 1,595 1,715	19.6 19.2 19.4 20.3 21.5	1,538 1,723 2,045 2,076 1,810	21.3 22.9 26.2 26.4 22.7	1,272 1,244 1,322 1,208 1,201	17.6 16.6 16.9 15.4 15.1	1,237 1,251 1,248 1,300 1,403	17.1 16.6 16.0 16.5
1960 1961 1962 1963 1964	25,728 25,519 27,226 27,483 27,496	328.9 322.9 342.9 342.3 339.5	11,331 11,476 11,752 12,078 12,087	144.8 145.2 148.0 150.4 149.2	7,745 7,783 8,168	98.2 98.0 98.0 101.7 98.0	3,688 3,692 3,758 4,033 4,416	47.1 46.7 47.3 50.2 54.5	1,710 1,656 1,668 2,005 2,286	21.9 21.0 21.0 25.0 28.2	1,784 1,778 1,908 2,049 2,055	22.8 22.5 24.0 25.5 25.4	2,002 1,692 1,824 1,995 1,714	25.6 21.4 23.0 24.8 21.2	1,148 1,003 907 816 807	14.7 12.7 11.4 10.2 10.0	1,352 1,448 1,477 1,652 1,559	17.3 18.3 18.6 20.6 19.2
1965 1966 1967 1968 1969	28,134 28,277 28,757 29,680 29,396	343.1 340.1 333.8 342.1 336.6	12,419 12,506 13,030 13,292 13,328	151.5 150.4 151.2 153.2 152.6	7,913	94.8 93.0 91.1 91.2 88.2	4,494 4,737 4,519 4,603 4,766	54.8 57.0 52.4 53.1 54.6	2,271 2,407 2,265 2,466 2,529	27.7 29.0 26.3 28.4 29.0	2,153 2,243 2,182 2,298 2,188	26.3 27.0 25.3 26.5 25.1	1,987 2,026 1,973 2,341 2,229	24.2 24.4 22.9 27.0 25.5	768 819 718 487 459	9.4 9.9 8.3 5.6 5.3	1,726 1,745 1,730 1,262 1,289	21.1 21.0 20.1 14.5 14.8
1970 1971 1972 1973 Note:	29,204 30,095 30,865 29,944	342.4 330.5	13,551 13,594 14,045 14,220	152.7 151.1 155.8 156.9	7,999 7,987	86.7 87.0 88.7 88.1	4,428 4,426 4,566 4,630	49.9 49.2 50.7 51.1 as, aleuke	2,309 2,274 2,450 2,389	26.0 25.3 27.2 26.4	2,180 2,103 2,222 2,074	24.6 23.4 24.7 22.9	2,004 1,981 1,924 2,090	22.6 22.0 21.3 23.1	436 386 316 263	4.9 4.3 3.5 2.9	1,174 1,187 1,153 1,142	13.2 13.2 12.8

include automobile collision with heavier vehicles from 1910 through 1922. Motorcycle accidents are included beginning with 1923. Deaths related to immaturity include congenital debility from 1910 through 1921.

- Beginning with the year 1968,

  1 Vascular Lesions Affecting Central Nervous System category is now called Cerebrovascular disease.

  2 Accidents exclude injuries undetermined whether accidently or purposely inflicted.

  3 Deaths due to Pneumonia now include Pneumonia of the Newborn.

  4 General arteriosclerosis is called arteriosclerosis.

TABLE 4,7 SELECTED VITAL STATISTICS BY COUNTY MICHIGAN RESIDENTS, 1973

	,	<del></del>	,	7	RESIDENTS, 19	7.5				,	,
Area	Provisional Population Estimates	Live Births	Illegitimate Live Births	Low Weight Live Births	Deaths	Infant Deaths	Neonatal Deaths	Perinatal Deaths	Fetal Deaths	Marriages 1	Divorces 1
STATE	9,061,000	141,550	20,299	10,950	78,522	2,561	1,902	3,392	1,682	94,486	39,415
Alcona Alger Allegan Alpena Antrim	8,300 8,200 69,800 32,300 13,900	114 121 1,167 508 209	10 8 72 34 16	7 5 78 39 9	106 95 609 277 141	1 7 13 9 3	1 6 9 8	2 5 20 14 1	1 - 11 8 1	83 72 734 346 135	20 280 115 40
Arenac Baraga Barry Bay Benzie	12,500 7,700 40,800 118,700 9,000	207 110 580 1,886 127	16 6 45 154 12	18 8 37 108 6	141 115 379 1,029 141	3 8 27 5	3 - 6 20 3	3 2 12 36 4	2 7 19 2	146 75 379 1,305 140	31 24 170 438 40
Berrien Branch Calhoun Cass Charlevoix	167,400 39,600 140,600 43,000 17,700	2,905 612 2,264 696 221	570 52 381 68 18	224 37 168 41 13	1,568 377 1,348 442 208	58 8 39 14 3	44 6 28 9 3	64 11 50 12 6	28 6 26 4 3	2,142 442 1,733 484 191	888 145 830 242 72
Cheboygan Chippewa Clare Clinton Crawford	18,700 34,400 19,300 48,500 7,700	282 724 267 769 97	20 51 30 35 8	15 36 19 43 8	196 334 214 306 85	2 10 1 11 3	2 9 1 10 3	4 15 3 20 2	2 7 2 10	185 387 233 411 84	45 121 65 136 33
Delta Dickinson Eaton Emmet Genesee	38,000 24,000 72,800 20,100 449,900	546 311 1,060 299 7,782	47 17 60 28 1,345	30 16 73 26 597	400 297 529 185 3,425	14 1 13 6 162	9 1 12 2 123	16 5 23 3 193	7 4 11 2 77	436 291 681 257 5,033	109 84 236 74 2,347
Gladwin Gogebic Grand Traverse Gratiot Hillsdale	15,400 20,400 43,300 40,400 39,400	221 274 679 634 563	13 26 56 44 41	14 12 33 46 43	174 326 373 365 376	5 4 9 9	2 4 3 7 7	3 8 13 11 11	2 5 11 4 5	132 334 581 465 440	16 43 217 128
Houghton Huron Ingham Ionia Iosco	36,500 35,400 266,900 47,800 28,200	470 544 4,178 814 484	23 28 494 50 19	34 25 287 51 34	490 427 1,722 421 258	6 8 67 16 8	4 6 51 13 6	7 18 89 17 8	3 12 46 5 3	314 391 3,270 489 286	105 80 1,543 152 70
Iron Isabella Jackson Kalamazoo Kalkaska	13,600 48,400 143,400 200,800 6,500	136 635 2,185 2,794 119	12 39 224 358 8	6 47 146 192 8	263 313 1,270 1,411 95	3 19 39 43 2	3 16 27 30 1	4 22 55 52 2	3 8 31 26 1	180 478 1,647 2,275 84	38 154 725 1,067 24
Kent Keweenaw Lake Lapeer Leelanau	416,200 2,200 6,400 58,100 12,000	6,509 28 86 972 159	753 - 21 54 8	440 - 7 57 9	3,506 34 129 462 132	85 2 14 1	60 1 7 1	114 1 2 15 1	62 1 1 8	4,941 24 60 593 97	1,891 4 14 236 33
Lenawee Livingston Luce Mackinac Macomb	83,700 68,900 7,600 10,500 644,800	1,487 1,031 106 135 9,462	110 62 8 17 547	80 53 4 9 621	726 504 66 121 3,951	18 16 1 1	9 9 1 1 135	21 17 2 2 2 218	12 8 1 1 89	1,053 686 84 100 6,436	329 262 18 12 2,750
Manistee Marquette Mason Mecosta Menominee	21,200 68,700 24,800 33,500 24,800	284 1,124 315 439 353	18 50 32 37 27	21 64 20 33 23	269 554 296 236 296	5 12 6 4 5	5 9 4 2 4	10 22 13 10 5	5 13 9 9	199 737 272 294 406	59 232 79 86 59
Midland Missaukee Monroe Montcalm Montmorency	65,200 7,900 124,600 42,700 6,400	1,024 133 2,019 729 78	60 7 172 37 3	60 11 116 52 7	379 92 1,012 421 73	18 2 33 14	12 1 26 8	23 3 45 14 1	13 2 21 6 1	694 78 2,138 428 52	251 22 438 152 24
Muskegon Newaygo Oakland Oceana Ogemaw	158,000 29,000 941,300 19,200 13,000	2,479 482 13,243 363 188	431 42 1,166 38 17	182 20 1,002 17 15	1,376 320 6,627 223 162	43 12 220 9 5	30 10 177 5 4	66 13 294 11 4	36 4 135 7	1,689 295 9,268 244 181	690 117 4,600 76 30
Ontonagon Osceola Oscoda Otsego Ottawa	10,900 17,100 5,700 12,600 138,400	182 271 56 193 2,166	7 15 5 17 99	16 17 7 8 92	130 177 79 109 900	3 1 - 2 30	3 1 - 2 25	9 3 - 6 41	6 2 - 4 17	96 199 60 124 1,302	33 - 14 39 368
Presque Isle Roscommon Saginaw St. Clair St. Joseph	13,500 12,800 226,600 127,800 50,100	203 150 3,922 2,136 829	12 20 718 180 79	15 15 318 134 57	136 216 1,876 1,211 507	7 4 75 34 9	7 2 58 32 8	7 3 99 48 21	1 1 45 18 14	126 119 2,315 1,336 649	28 53 881 504 226
Sanilac Schoolcraft Shiawassee Tuscola Van Buren	37,900 8,400 67,300 51,900 60,500	580 102 1,156 826 992	34 3 104 63 144	24 4 50 55 75	419 123 507 468 628	13 3 11 13 20	8 2 7 9 11	17 7 20 18 21	9 5 15 10 11	387 110 716 479 647	95 28 270 158 211
Washtenaw Wayne Wexford Not Stated	244,300 2,613,900 21,300	3,723 41,876 364 1	340 10,172 32	294 4,178 29	1,328 26,253 254 3	53 911 9	40 661 7 -	76 1,212 11	43 625 6 -	2,714 23,992 295 -	1,231 11,773* 92

<sup>1</sup> - By county of occurrence rather than county of residence

<sup>\*</sup> Number of divorces for Wayne County is an estimate.

TABLE 4.8 SELECTED VITAL STATISTICS RATES BY COUNTY MICHIGAN RESIDENTS, 1973

Area	Live Births	Illegitimate Live Births	Low Weight 3 Live Births	Deaths	Infant Deaths	Neonatal Deaths	Perinatal Deaths	Petal Beaths	Marriages 2	Divorces $\frac{1}{2}$
STATE	15.6	143.4	77,4	8.7	18.1	13.4	23.7	11.7	20.9	8.7
Alcona Alger Allegan Alpena Antrim	13.7 14.8 16.7 15.7	87.7 66.1 61.7 66.9 76.6	61.4 41.3 66.8 76.8 43.1	12.8 11.6 8.7 8.6 10.1	8.8 57.9 11.1 17.7 14.4	8.8 49.6 7.7 15.7	17.4 41.3 17.0 27.1 4.8	8.7 - 9.3 15.5 4.8	20,0 17.6 21.0 21.4 19.4	4.8 8.0 7.1 5.8
Arenac Baraga Barry Bay Benzie	16.6 14.3 14.2 15.9 14.1	77.3 54.5 77.6 81.7 94.5	87.0 72.7 63.8 57.3 47.2	11.3 14.9 9.3 8.7 15.7	14.5 13.8 14.3 39.4	14.5 10.3 10.6 23.6	14.5 17.9 20.4 18.9 31.0	17.9 11.9 10.0 15.5	23.4 19.5 18.6 22.0 31.1	5.0 6.2 8.3 7.4 8.9
Berrien Branch Calhoun Cass Charlevoix	17.4 15.5 16.1 16.2 12.5	196.2 85.0 168.3 97.7 81.4	77.1 60.5 74.2 58.9 58.8	9.4 9.5 9.6 10.3 11.8	20.0 13.1 17.2 20.1 13.6	15.1 9.8 12.4 12.9 13.6	21.8 17.8 21.8 17.1 26.8	9.5 9.7 11.4 5.7 13.4	25.6 22.3 24.7 22.5 21.6	10.6 7.3 11.8 11.3 8.1
Cheboygan Chippewa Clare Clinton Crawford	15.1 21.0 13.8 15.9 12.6	70.9 70.4 112.4 45.5 82.5	53.2 49.7 71.2 55.9 82.5	10.5 9.7 11.1 6.3 11.0	7.1 13.8 3.7 14.3 30.9	7.1 12.4 3.7 13.0 30.9	14.1 20.5 11.2 25.7 20.6	7.0 9.6 7.4 12.8	19.8 22.5 24.1 16.9 21.8	4.8 7.0 6.7 5.6 8.6
Delta Dickinson Eaton Emmet Genesee	14.4 13.0 14.6 14.9	86.1 54.7 56.6 93.6 172.8	54.9 51.4 68.9 87.0 76.7	10.5 12.4 7.3 9.2 7.6	25.6 3.2 12.3 20.1 20.8	16.5 3.2 11.3 6.7 15.8	28.9 15.9 21.5 10.0 24.6	12.7 12.7 10.3 6.6 9.8	22.9 24.3 18.7 25.6 22.4	5.7 7.0 6.5 7.4 10.4
Gladwin Gogebic Grand Traverse Gratiot Hillsdale	14.4 13.4 15.7 15.7 14.3	58.8 94.9 82.5 69.4 72.8	63.3 43.8 48.6 72.6 76.4	11.3 16.0 8.6 9.0 9.5	22.6 14.6 13.3 14.2 19.5	9.0 14.6 4.4 11.0 12.4	13.5 28.7 18.8 17.2 19.4	9.0 17.9 15.9 6.3 8.8	17.1 32.7 26.8 23.0 22.3	2.1 4.2 10.0 6.3
Houghton Huron Ingham Ionia Iosco	12.9 15.4 15.7 17.0 17.2	48.9 51.5 118.2 61.4 39.3	72.3 46.0 68.7 62.7 70.2	13.4 12.1 6.5 8.8 9.1	12.8 14.7 16.0 19.7 16.5	8.5 11.0 12.2 16.0 12.4	14.8 32.4 21.1 20.8 16.4	6.3 21.6 10.9 6.1 6.2	17.2 22.1 24.5 20.5 20.3	5.8 4.5 11.6 6.4 5.0
Iron Isabella Jackson Kalamazoo Kalkaska	10.0 13.1 15.2 13.9 18.3	88.2 61.4 102.5 128.1 67.2	44.1 74.0 66.8 68.7 67.2	19.3 6.5 8.9 7.0 14.6	22.1 29.9 17.8 15.4 16.8	22.1 25.2 12.4 10.7 8.4	28.8 34.2 24.8 18.4 16.7	21.6 12.4 14.0 9.2 8.3	26.5 19.8 23.0 22.7 25.8	5.6 6.4 10.1 10.6 7.4
Kent Keweenaw Lake Lapeer Leelanau	15.6 12.7 13.4 16.7 13.3	115.7 - 244.2 55.6 50.3	67.6 81.4 58.6 56.6	8.4 15.5 20.2 8.0 11.0	13.1 23.3 14.4 6.3	9.2 - 11.6 7.2 6.3	17.3 34.5 23.0 15.3 6.3	9.4 34.5 11.5 8.2	23.7 21.8 18.8 20.4 16.2	9.1 3.6 4.4 8.1 5.5
Lenawee Livingston Luce Mackinac Macomb	17.8 15.0 13.9 12.9 14.7	74.0 60.1 75.5 125.9 57.8	53.8 51.4 37.7 66.7 65.6	8.7 7.3 8.7 11.5 6.1	12.1 15.5 9.4 7.4 17.6	6.1 8.7 9.4 7.4 14.3	14.0 16.4 18.7 14.7 22.8	8.0 7.7 9.3 7.4 9.3	25.2 19.9 22.1 19.0 20.0	7.9 7.6 4.7 2.3 8.5
Manistee Marquette Mason Mecosta Menominee	13.4 16.4 12.7 13.1 14.2	63.4 44.5 101.6 84.3 76.5	73.9 56.9 63.5 75.2 65.2	12.7 8.1 11.9 7.0 11.9	17.6 10.7 19.0 9.1 14.2	17.6 8.0 12.7 4.6 11.3	34.6 19.3 40.1 22.3 14.1	17.3 11.4 27.8 20.1 2.8	18.8 21.5 21.9 17.6 32.7	5.6 6.8 6.4 5.1 4.8
Midland Missaukee Monroe Montcalm Montmorency	15.7 16.8 16.2 17.1 12.2	58.6 52.6 85.2 50.8 38.5	58.6 82.7 57.5 71.3 89.7	5.8 11.6 8.1 9.9 11.4	17.6 15.0 16.3 19.2	11.7 7.5 12.9 11.0	22.2 22.2 22.1 19.0 12.7	12.5 14.8 10.3 8.2 12.7	21.3 19.7 34.3 20.0 16.3	7.7 5.6 7.0 7.1 7.5
Muskegon Newaygo Oakland Oceana Ogemaw	15.7 16.6 14.1 18.9 14.5	173.9 87.1 88.0 104.7 90.4	73.4 41.5 75.7 46.8 79.8	8.7 11.0 7.0 11.6 12.5	17.3 24.9 16.6 24.8 26.6	12.1 20.7 13.4 13.8 21.3	26.2 26.7 22.0 29.7 21.3	14.3 8.2 10.1 18.9	21.4 20.3 19.7 25.4 27.8	8.7 8.1 9.8 7.9 4.6
Ontonagon Osceola Oscoda Otsego Ottawa	16.7 15.8 9.8 15.3 15.7	38.5 55.4 89.3 88.1 45.7	87.9 62.7 125.0 41.5 42.5	11.9 10.4 13.9 8.7 6.5	16.5 3.7 - 10.4 13.9	16.5 3.7 - 10.4 11.5	47.9 11.0 - 30.5 18.8	31.9 7.3 - 20.3 7.8	17.6 23.3 21.1 19.7 18.8	6.1 - 4.9 6.2 5.3
Presque Isle Roscommon Saginaw St. Clair St. Joseph	15.0 11.7 17.3 16.7 16.5	59.1 133.3 183.1 84.3 95.3	73.9 100.0 81.1 62.7 68.8	10.1 16.9 8.3 9.5 10.1	34.5 26.7 19.1 15.9 10.9	34.5 13.3 14.8 15.0 9.7	34.3 19.9 25.0 22.3 24.9	4.9 6.6 11.3 8.4 16.6	18.7 18.6 20.4 20.9 25.9	4.1 8.3 7.8 7.9 9.0
Sanilac Schoolcraft Shiawassee Tuscola Van Buren	15.3 12.1 17.2 15.9 16.4	58.6 29.4 90.0 76.3 145.2	41.4 39.2 43.3 66.6 75.6	11.1 14.6 7.5 9.0 10.4	22.4 29.4 9.5 15.7 20.2	13.8 19.6 6.1 10.9 11.1	28.9 65.4 17.1 21.5 20.9	15.3 46.7 12.8 12.0 11.0	20.4 26.2 21.3 18.5 21.4	5.0 6.7 8.0 6.1 7.0
Washtenaw Wayne Wexford	15.2 16.0 17.1	91.3 242.9 87.9	79.0 99.8 79.7	5.4 10.0 11.9	14.2 21.8 24.7	10.7 15.8 19.2	20.2 28.5 29.7	11.4 14.7 16.2	22.2 18.4 27.7	10.1 9.0 8.6

- By county of occurrence rather than county of residence 2 - Rate of persons per population rather than events per population 3 - Ratio per  $1,000\ \mbox{live}$  births

TABLE 4.9
VITAL STATISTICS BY SELECTED CITIES\*
MICHIGAN RESIDENTS, 1973

Area	Live Births by Residence	Live	itimate Births sidence	Deaths by Residence	Infant by Resi		Fetal D by Resi	
<del></del>	Number	Number	Rate	Number	Number	Rate	Number	Ratio
Allen Park	338	14	41.4	310	6	17.8	2	5.9
Ann Arbor	1,485	110	74.1	470	15	10.1	20	13.5
Battle Creek	750	215	286.7	570	20	26.7	14	18.7
Bay City	794	92	115.9	569	14	17.6	7	8.8
Birmingham	354	5	14.1	321	5	14.1	6	16.9
Dearborn	950	45	47.4	1,041	9	9.5	10	10.5
Dearborn Heights	827	42	50.8	471	13	15.7	13	
Detroit	25,557	8,786	343.8	17,674				15.7
East Detroit	475	33			640	25.0	425	16.6
East Lansing	399		69.5	364	7	14.7	4 i	8.4
Last Lansing	399	13	32.6	135	5	12.5	1	2.5
Ferndale	479	55	114.8	286	4	8.4	4	8.4
Flint	3,862	1,006	260.5	1,820	99	25.6	43	11.1
Garden City	511	39	76.3	209	5	9.8	7	13.7
Grand Rapids	3,023	589	194.8	2,068	38	12.6	29	9.6
Hamtranck	357	45	126.1	454	9	25.2	4	11.2
Highland Park	525	194	369.5	429	24	45.7	11	21.0
Holland (Pt.)	423	30	70.9	222	9	21.3	1	
Inkster	785	213	271.3	290				2.4
Jackson	799	129			22	28.0	4	5.1
Kalamazoo	1,390	254	161.5 182.7	567 754	17 22	21.3 15.8	10 14	12.5 10.1
Lansing (Pt.)	2,561							
Lincoln Park		395	154.2	1,118	49	19.1	35	13.7
	722	43	59.6	385	8	11.1	5	6.9
Livonia	1,074	49	45.6	604	10	9.3	12	11.2
Madison Heights	606	42	69.3	195	9	14.9	<u>ii</u>	18.2
Midland (Pt.)	546	29	53.1	184	10	18.3	6	11.0
Muskegon	908	190	209.3	557	17	18.7	14	15 /
Oak Park	408	13	31.9	313	7	17.2		15.4
Pontiac	2,232	548	245.5	847			4	9.8
Portage	405	24	59.3		58	26.0	18	8.1
Port Huron	709			132	4	9.9	6	14.8
rore naton	709	87	122.7	405	16	22,6	4	5.6
Roseville	957	66	69.0	346	14	14.6	13	13.6
Royal Oak	1,026	45	43.9	699	18	17.5	8	7.8
Saginaw	1,976	574	290.5	981	45	22.8	29	14.7
St. Clair Shores	879	53	60.3	629	14	15.9	5	5.7
Southfield	693	15	21.6	5 30	9	13.0	7	10.1
Southgate	471	22	46.7	181	5	10.6	8	17.0
Sterling Heights	1,432	44	30.7	279	14			17.0
Taylor	1,572	109	69.3	382		9.8	11	7.7
Iroy	735	23	31.3		29	18.4	19	12.1
Warren	2,038	129	63.3	253 934	9 42	12.2 20.6	4 18	5.4 8.8
Westland	1 507			1			10	0.0
	1,587	93	58.6	369	24	15.1	22	13.9
yandotte.	596	47	78.9	391	4	6.7	7	11.7
Nyoming	956	39	40.8	366	10	10.5	8	8.4
Ypsilanti	600	126	210.0	206	13	21.7	111	18.3

<sup>\* 25,000</sup> population or over

TABLE 4.10 SELECTED CAUSES OF DEATH BY COUNTY MICHIGAN RESIDENTS, 1973

								MICHIGAN	RESIDENTS	, 1973								
Area	All Causes	Diseases of the Heart	Malignant Neoplasms	Cerebrovascular Disease	Accidents, All Porms	(Motor Vehicle Accidents)	Diabetes Mellitus	Influenza & Pneumonía	Arteriosclerosis	Tuberculosis, All Forms	All Other Infective & Parasitic Diseases	Cirrhosis of the Liver	Nephritis & Nephrosis	Infections of Kidney	Maternal Deaths, All Forms	Suicide and Self- Inflicted Injury	Homicide and Injury Purposely Inflicted by Other Persons - Not in War	Residual
STATE	78,522	29,944	14,220	7,987	4,630	2,389	2,074	2,090	1,142	138	406	1,711	323	180	26	1,117	1,180	11,354
Alcona Alger Allegan Alpena Antrim	106 95 609 277 141	46 43 226 110 57	20 21 103 46 27	13 7 74 38 15	7 2 42 19 12	3 - 27 11 6	1 3 24 3	4 3 11 5 4	1 1 22 3 2		- 4 1 2	2 1 6 4 4	- 2 1	1 3 -	1	8 5 3	- 2 1	12 13 82 40 15
Arenac Baraga Barry Bay Benzie	141 115 379 1,029 141	58 36 161 410 57	25 19 58 166 18	16 14 32 139 16	10 11 26 67 13	6 9 16 42 6	7 7 8 21 4	1 3 12 19 3	3 2 8 18 3	1 1 2 1	1 7	3 17	3 - 1	1 5	- - - -	7 14 1	L - - -	19 20 61 143 25
Berrien Branch Calhoun Cass Charlevoix	1,568 377 1,348 442 208	602 130 529 162 64	273 60 235 93 40	158 52 152 42 35	96 34 70 28 17	48 21 33 12 6	43 12 41 7 6	41 11 41 19	29 10 37 10 7	2 1 1	10 3 8 5 1	24 6 21 8 6	5 3 -	5 1	1 - - -	20 6 18 2 1	15 1 4 2	244 52 187 63 28
Cheboygan Chippewa Clare Clinton Crawford	196 334 214 306 85	92 131 107 112 21	32 54 33 47 19	16 22 22 23 35 11	11 34 13 22 8	6 15 6 18 3	6 10 15 2	2 12 2 6 3	2 11 5 10		2 1 1 1 2	3 7 1 - 2	1 2 - 2	- - 2	1	6 4 9 1	2 1 1	29 42 24 46 13
Delta Dickinson Eaton Emmet Genesee	400 297 529 185 3,425	149 136 196 71 1,281	79 50 102 37 647	39 32 46 20 320	24 12 31 13 243	14 8 18 9 132	17 13 20 6 87	6 4 10 2 89	15 11 23 2 54	1	1 2 13	6 2 8 3 60	1 5 3 *	1 1 - 13	- - - 2	3 3 11 2 65	4 - 1 2 58	55 29 76 25 485
Gladwin Gogebic Grand Traverse Gratiot Hillsdale	174 326 373 365 376	71 161 132 133 141	26 61 54 63 66	24 20 53 62 29	10 15 29 20 23	8 4 13 14 14	3 11 7 15 16	3 12 9 5 15	4 3 8 9 6	1 2 1 -	1 3 1 5	1 4 8 1 1	- - - 3	2 1 1	- - - 2	4 2 4 8 1	1 1	26 33 64 46 68
Houghton Huron Ingham Ionia Iosco	490 427 1,722 421 258	225 140 626 157 110	75 74 315 67 51	59 82 176 50 28	27 35 112 33 14	15 20 59 18 12	13 10 44 10 5	16 10 49 12 4	2 8 30 8 3	- 5 -	2 1 8 - 1	6 8 29 5 2	6 2 4 1	1 6 1	-	3 3 27 5 2	13	55 53 278 72 37
Iron Isabella Jackson Kalamazoo Kalkaska	263 313 1,270 1,411 95	96 141 514 546 36	49 42 212 246 14	60 25 122 141 12	12 21 71 81 6	1 9 38 39 3	4 10 27 28 6	5 7 28 49 2	5 33 32 3	1	2 6 12	3 5 25 15 1	1 6 3 1	- 2 5	-	5 4 21 23 1	10 7	29 49 193 222 13
Kent Keweenaw Lake Lapeer Leelanau	3,506 34 129 462 132	1,322 23 53 193 52	648 4 15 75 18	384 4 15 42 15	214 - 8 36 12	105 - 4 21 5	81 1 3 12 2	106 1 4 10 4	85 - 4 7 2		19 - - 4 -	57 - 4 4 3	9 -	9 - - - -	- - -	38 1 4 1	19 - - 1	509 1 22 75 22
Lenawee Livingston Luce Mackinac Macomb	726 504 66 121 3,951	269 178 34 46 1,494	135 105 8 27 846	76 47 5 12 321	65 43 3 3 226	34 23 2 1 111	31 10 5 5 90	10 11 2 5 94	15 7 1 - 38	- 1 7	4 2 - 1 23	8 9 - 4 91	1 - - 17	1 - - - 6	- - - 3	9 10 1 2 68	- 2 - 32	103 79 6 16 595
Manistee Marquette Mason Mecosta Menominee	269 554 296 236 296	108 257 141 83 120	43 107 35 47 54	27 36 31 21 33	22 28 17 13	13 12 8 8 6	10 12 10 10	6 15 8 12 9	4 9 9 6 12	1 - 1 -	1 1 1 1	2 14 2 2 1	2 6 - 1	2 2 - 1 1	1 - -	1 4 5 5 6	1 1	39 61 36 35 30
Midland Missaukee Monroe Montcalm Montmorency	379 92 1,012 421 73	127 36 377 173 29	65 22 192 68 12	47 6 89 47 7	38 4 88 24 2	25 - 49 9 -	8 5 23 9 2	11 1 31 12	8 2 14 6 -	- 1 -	2 1 2 2	5 - 16 6 3	- 5 3	1 - - 2	2	7 1 17 2 3	2 - 6 1	58 14 149 66 12
Muskegon Newaygo Oakland Oceana Ogemaw	1,376 320 6,627 223 162	487 122 2,518 85 68	265 58 1,251 29 30	201 40 691 24 26	71 22 399 15 12	33 6 206 9 6	32 4 160 4 4	34 3 148 8 2	25 8 64 4 3	3 - 15 -	3 35 1	17 3 124 3	3 2 25 - 1	5 1 15 1	1 - - -	14 1 137 1 -	12 - 80 1	203 56 965 47 15
Ontonagon Osceola Oscoda Otsego Ottawa	130 177 79 109 900	41 74 35 39 359	27 22 14 21 147	10 20 7 8 110	13 15 8 13 54	10 7 4 6 30	6 7 1 2 17	5 8 2 2 2	3 - 1 2 16	1 - - - 1	1 - 2	3 2 1 7	2 2 2	1 - 3	-	4 2 2 1 13	- 1 - - 2	16 23 8 20 141
Presque Isle Roscommon Saginaw St. Clair St. Joseph	136 216 1,876 1,211 507	51 96 625 442 212	27 48 362 212 76	11 21 215 134 51	13 10 128 95 41	8 7 65 56 23	5 53 41 8	2 3 42 24 19	5 3 58 35 6	- 3 2 1	10 3 2	3 3 26 17 2	2 1 3 4 1	- 6 2 3	1	1 2 29 19 7	1 40 10 6	21 23 276 170 72
Sanilac Schoolcraft Shiawassee Tuscola Van Buren	419 123 507 468 628	159 55 179 210 200	63 21 109 58 118	63 18 59 44 75	29 4 39 47 56	16 2 26 31 27	12 4 7 24 23	7 2 13 9 19	4 4 9 2 11	1 1 1 -	1 1 4 - 2	2 - 7 6 11	4 1 1 2 4	1 1 - - 3	-	3 - 7 7 9	1 - 2 -	69 12 72 56 97
Washtenaw Wayne Wexford Not Stated	1,328 26,253 254 3	399 10,060 96 1	264 4,713 40	159 2,403 23	122 1,170 16 1	65 557 10 1	38 700 9	42 764 12	21 180 6 -	4 67 -	8 161 - -	15 911 9	10 143 - -	4 54 2 -	11 - -	21 349 1 -	12 818 - 1	209 3,749 40

## TABLE 4.11 REPORTED CASES OF CERTAIN COMMUNICABLE DISEASES BY COUNTY MICHIGAN RESIDENTS, 1973

			· · · · · · · · · · · · · · · · · · ·			,	1		,							
			1							Tubercu	losis			ngh		
Area	Total	Gonorrhea	Streptococcal Sore Throat (Including Scarlet Fever)	Chickenpox	Mumps	Measles	Syphilis	Hepatitis, Infectious and Serum*	Rubella	Total All Porms	New Active Cases	Salmonella Infections	Dysentery, Bacillary,	Whooping Coug	Meningococcal Infections	All Other**
STATE	97,317	31,086	24,467	17,788	5,042	4,552	4,375	3,872	2,001	1,473	1,121	795	623	86	54	1,103
Alcona Alger Allegan Alpena Antrim	92 10 411 469 8	1 2 54 13 7	7 - 209 22 -	13 2 36 194	2 11 3	63 7 135	1 16 -	4 1 28 - 1	3 1 7 100	7 2	- - 6 1	11	13	6 -	2	· 1 1 4
Arenac Baraga Barry Bay Benzie	72 40 364 939 15	3 1 17 166 5	5 - 127 15	28 29 136 455 5	1 7 41 161	1 - 9 8 -	- 1 6 4	- - 8 26	1 1 1 75	1 4 13 1	1 4 10 1	2 1 6 1	12	-	1	31 1 12
Berrien Branch Calhoun Cass Charlevoix	1,466 331 767 168 27	811 73 467 64 16	217 13 16 15	82 109 74 2	41 89 40 7	97 12 15 14	58 6 38 14 3	25 15 80 40	57 2 4 2	41 4 10 8 2	30 3 8 8	19 3 5 1	14 - 2 1	3 -	- 1	1 5 15 - 5
Cheboygan Chippewa Clare Clinton Crawford	194 509 31 433 66	15 15 9 43 8	2 20 5 15 2	35 433 6 300 12	133 3 - 9 32	11 2 4	5 2 4 2	3 2 1 52 5	1 22 - - 6	- 1 2	2	1 2	2	-	-	1 4
Delta Dickinson Eaton Emmet Genesee	260 243 1,474 23 4,943	27 2 64 7 2,386	69 26 432 - 484	119 114 463 - 978	26 91 282 - 465	2 1 12 - 67	10 - 6 3 175	- 34 12 151	1 6 154 - 68	2 3 5 -	1 1 3 - 27	- 3 - 36	7 - 27	2	- - - 1	4 - 10 1 76
Gladwin Gogebic Grand Traverse Gratiot Hillsdale	11 51 188 64 55	5 4 23 20 23	1 27 30 - 5	2 3 99 9	- 6 4 3 -	1 3 4	- 3 9 4 3	2 - 9 11 7		1 6 4 2 2	5 4 2 2	- - - 5 8	- - - 3 1	1	-	- 1 7 3 2
Houghton Huron Ingham Ionia Iosco	883 62 8,576 270 584	11 6 1,625 28 12	34 - 5,590 98 423	205 - 461 83 102	583 2 206 3 6	17 47 17 5 23	6 2 103 6	2 1 321 28 9	17 1 107 5 7	5 3 32 3	4 1 21 2	35	38	- 3 1	-	3 - 38 8 1
Iron Isabella Jackson Kalamazoo Kalkaska	109 93 1,113 2,631 81	44 328 1,280	89 2 174 303 1	2 8 350 552 22	- 3 59 41 41	1 1 21 20 4	5 2 68 91	1 9 58 138	6 1 9 20 10	5 4 11 12	4 4 8 7	5 11 9	- 7 2 54	- 2 9 1	1 2	5 12 108
Kent Keweenaw Lake Lapeer Leelanau	13,663 11 52 87 26	1,693 - 9 15 3	11,473 - 1 1	53 - 19 4 14	11 11 1	- - - 14	89 - 16 3 3	128 - 6 33 -	13	40 - 1 2 1	28 - 1 1	33 - - - 2	83	13	2	37 - 1 3
Lenawee Livingston Luce Mackinac Macomb	902 258 119 64 3,307	145 37 10 5 509	111 24 2 - 193	303 77 25 39 1,375	228 58 4 1	15 6 71 8 337	5 11 2 5 89	26 30 - 1 311	15 6 2 - 163	3 5 2 3 64	2 2 2 2 2 37	6 1 - 29	36 - - - 6	1 2	1 3	8 3 - - 51
Manistee Marquette Mason Mecosta Menominee	51 1,402 149 372 124	18 73 88 50	19 988 12 114 1	1 267 27 52 112	7 - 2 4	5 5 2 48	6 5 4 2	20 10 8 2	16 2 85 1	2 3 1 - 3	2 1 - - 3	5 - 2	2 3	- 2 - -	1 -	10 1 6
Midland Missaukee Monroe Montcalm Montmorency	575 98 434 116 23	60 5 137 30 5	28 8 137 - 2	376 75 33 18 4	23 5 14 5	35 - 2 1 9	1 1 12 3 1	27 66 26	16 2 - 4	2 1 20 3 1	2 17 3 1	1 1 3 4	1 6 17	-	-	5 - 4 5
Muskegon Newaygo Oakland Oceana Ogemaw	1,059 121 11,764 306 132	684 25 2,176 10 5	27 19 1,202 8 23	51 11 4,832 193 65	32 32 1,030 4 14	2 - 851 - 11	43 10 131 12	65 17 540 64 6	67 - 507 6 3	26 2 127 1	18 1 77 1	26 3 87 2	9 1 40 2	1 1 21 -	1 12 1	25 208 3 4
Ontonagon Osceola Oscoda Otsego Ottawa	62 13 4 18 936	8 - 11 331	1 1 2 38	60 - - - 457	15	- - - 4	- 2 1 3 10	3 - - 36	1 - - - 15	1 - 3	1 - 3	- - - - 9	- - 3 6		- 1 -	- 1 8
Presque Isle Roscommon Saginaw St. Clair St. Joseph	312 26 2,114 694 309	9 6 1,197 359 81	4 34 38 14	41 8 670 35 120	243 2 5 9	7 - 13 91 6	1 3 43 14 21	1 2 55 69 34	6 3 5 19 3	1 39 23 5	24 22 5	- 12 17	22 13	2	-	1 17 7 6
Sanilac Schoolcraft Shiawassee Tuscola Van Buren	11 10 371 263 709	3 2 58 35 161	60 3 12 26	1 104 108 364	86 4 31	1 3 55 13	3 9 4 49	6 - 35 29 19	1 2 10 20	2 - 7 3	2 7 2 10	- - - 3	- 2 - 2		-	5 3 9
Washtenaw Wayne Wexford State Homes * 489 of these we	1,746 26,208 107 63	1,284 14,050 13	126 1,230 10	91 2,106 44 27	18 510 17 19	24 2,286 1 2	46 3,049 6	74 1,025 5 8	30 270 5	42 791 4	30 637 3	1 380 - 1	5 173 1 6	11	3 20 -	2 307 1 -

* 489 of these were serum hepatitis	
** Includes:	
Meningitis, Aseptic	434
Encephalitis, Infectious	163
Meningitis, Other	154
Staphyloccal Infections	101
Meningitis, H. Influenza	89
Rheumatic Fever	89 42
Ring Worm	31

Diarrhea of Infants under 1 year	24
Typhoid Fever	14
Rabies in Animals	12
Dysentery, Amebic	10
Food Poisonings	9
Malaria	6
Congenital Rubella Syndrome	4

Leptospirosis	
Tetanus	
Tularemia	
Leprosy	
Trichinosis Undulant Fever	

TABLE 4.12 NUMBER OF DEATHS BY CAUSE MICHIGAN RESIDENTS, 1973

DA LIST NUMBER	CAUSE OF DEATH	NUMBER	ICDA LIST NUMBER	CAUSE OF DEATH	NUMB
	I. INFECTIVE AND PARASITIC DISEASES (000-136)		185	Malignant neoplasm of prostate	7
		. !!	186	Malignant neoplasm of testis Malignant neoplasm of other and	
003	Other salmonella infections	- 2 - 8	187	unspecified male genital organs	
008 009	Enteritis due to other specified organisms Diarrheal disease	- 67 II	188	Malignant neoplasm of bladder	3
010	Silicatuherculosis	- 7 []	189	Malignant neoplasm of other and	
011	Pulmonary tuberculosis	- 92	100	unspecified urinary organs Malignant neoplasm of eye	3
012	Other respiratory tuberculosis	- 2	190 191	Malignant neoplasm of brain	3
013	Tuberculosis of meninges and central nervous system	3	192	Malignant neoplasm of other parts of	
014	Tuberculosis of intestines, peritoneum and			nervous system	
	mesenteric glands	- 1	193 194	Malignant neoplasm of thyroid gland Malignant neoplasm of other endocrine	
016 017	Tuberculosis of genitourinary system Tuberculosis of other organs	- 2 - 1	194	glands	
OL7					
018	Disseminated tuberculosis	- 11 19	195	Malignant neoplasm of ill-defined sites	1
019 027	Late effects of tuberculosisOther zoonotic bacterial diseases	5	196	Secondary and unspecified malignant	
031	Other mycobacterial diseases	1		neoplasm of lymph nodes	
033	Whooping cough	- 1	197	Secondary malignant neoplasm of	
036	Meningococcal Infection	- 16	198	respiratory and digestive system Other secondary malignant neoplasms	
038	SepticemiaOther bacterial diseases	- 153 - 22	199	Malignant neoplasm without specification	
039 044	Late effects of acute poliomyelitis	3	127	of site	
045	Aseptic meningitis due to enterovirus	3	200	Lymphosarcoma and reticulum-cell sarcoma	
			201	Hodgkin's disease	
046	Other enterovirus diseases of central		202	Other neoplasms of lymphoid tissue Multiple myeloma	
	nervous system	3 7	203 204	Lymphatic leukemia	
052 054	Chickenpox	5	207		
054 055	Measles	2	205	Myeloid leukemia	
065	Viral encephalitis, unapecified	18	206	Monocytic leukemia	
070	Infectious hepatitis	32	207 208	Other and unspecified leukemiaPolycythemia vera	
075 079	Infectious mononucleosisOther viral diseases	14	209	Myelofibrosis	
084	Malaria	1	210	Renien neoplasm buccal cavity and	
093	Cardiovascular syphilis	- <b>-</b> 7		pharynx	
			211	Benign neoplasm of other parts of digestive system	
094	Syphilis of central nervous system Leptospirosis	5 1	212	Benign neoplasm of respiratory system	
100 112	Moniliasis	5 I	214	Lipoma	
115	Histoplasmosis	1	215	Other benign neoplasms of muscular and	
116	Rlestomycosis	4		connective tissue	
117	Other systemic mycosis Toxoplasmosis	1   i	218	Uterine fibroma	
130 135	Sarcoidosis	1ī	220	Benign neoplasm of ovary	
136	Other and unspecified infective and parasitic	i	223	Benign neoplasm of kidney and other	
	diseases	6	205	urinary organs	
	( (3/0 000)		225	of nervous system	
	II. NEOPLASMS (140-239)		226	Benign neoplasm of endocrine glands	
140	Malignant neoplasm of lip	4	227	Hemangioma and lymphangioma	
141	Malignant neoplasm of tongue	56	228	Benign neoplasm of other and	
142	Malignant neoplasm of salivary gland	11	230	unspecified organs and tissues Neoplasm of unspecified nature of	
143	Malignant neoplasm of gum Malignant neoplasm of floor of mouth	4 26	230	digestive organs	
144 145	Malignant neoplasm of other and unspecified		231	Neoplasm of unspecified nature of	
	parts of mouth	44		respiratory organs	
146	Malignant neoplasm of oropharynx	37 21	232	Neoplasm of unspecified skin and musculoskeletal system	
147	Malignant neoplasm of nasopharynxmalignant neoplasm of hypopharynx			mascarosnorvan vy====	
148 149	Malignant neoplasm of pharynx, unspecified	59	234	Neoplasm of unspecified nature of uterus	
147			235	Neoplasm of unspecified nature of ovary	
150	Malignant neoplasm of esophagus	287	237	Neoplasm of unspecified nature of other genitourinary organs	
151	Malignant neoplasm of stomach	612	238	Neoplasm of unspecified nature of eye,	
152	including duodenum	24		brain and other parts of nervous system-	
153	Malignant neoplasm of large intestine,		239	Neoplasm of unspecified nature of other	
	except rectum	1,529		and unspecified organs	
154	Malignant neoplasm of rectum and rectosigmoid junction	364		III. ENDOCRINE, NUTRITIONAL AND METABOLIC	
155	Malignant neoplasm of liver and intrahepatic	304		DISEASES (240-279)	
255	bile ducts, specified as primary	84			
156	Malignant neoplasm of gall bladder and		242	Thyrotoxicosis with or without goiter	
	bile ducts	196	243 244	Cretinism of congenital origin	
157	Malignant neoplasm of pancreas	710	245	Thyroiditis	
158	Malignant neoplasm of peritoneum and retroperitoneal tissue	28	250	Diabetes mellitus	
159	Malignant neoplasm of unspecified digestive		251	Disorders of pancreatic internal secre-	
	organs	<b>-</b> 24	252	tion other than diabetes mellitus Diseases of parathyroid gland	
1/0	Malignant neoplasm of nose, nasal cavities,		252	Diseases of pituitary gland	
160	middle ear and accessory sinuses	22	254	Diseases of thymus gland	
161	Malignant neoplasm of larynx	126	255	Diseases of adrenal glands	
162	Malignant neoplasm of trachea, bronchus		11	Ovarian dysfunction	
	and lung	3,004	256 258	Polyglandular dysfunction and other	
163	Malignant neoplasm of other and unspecified respiratory organs	27	[]	diseases of endocrine glands	
170	Malignant neoplasm of bone	71	262	Niacin deficiency	
171	Malignant neoplasm of connective and other		263	Other vitamin B deficiency	
	soft tissue	75	266	Other vitamin deficiencyProtein malnutrition	
172	Malignant melanoma of skin	109 39	267 268	Nutritional marasmus	
173	Other malignant neoplasm of skin	1,326	269	Other nutritional deficiency	
174 180	Malignant neoplasm of cervix uteri	264	270	Congenital disorders of amino acid	
181	Chorionepithelioma	4		metabolism	
182	Other malignant neoplasm of uterus	218	271	Congenital disorders of carbohydrate metabolism	
183	Malignant neoplasm of ovary, fallopian tube	373	272	Congenital disorders of lipid metabolism	
	and broad ligament	- 3/3	11	->ug	
184					

#### TABLE 4.12 NUMBER OF DEATHS BY CAUSE MICHIGAN RESIDENTS, 1973 (continued)

LIST NUMBER		CAUSE OF DEATH	NUMBER	ICDA LIST NUMBER	CAUSE OF DEATH NU
273		Other and unspecified congenital disorders		400	Malignant hypertension
		of metabolism	30	401	Essential benign hypertension
274		Gout	16	402	Hypertensive heart disease
275		Plasma protein abnormalities	14	403	Hypertensive renal disease
276		Amyloidosis	11	404	Hypertensive heart and renal disease
277		Obesity not specified as of endocrine origin	69	410	Acute myocardial infarction14,
278		Other hyperalimentations	ı	411	Other acute and subacute forms of
279		Other and unspecified metabolic diseases	29		ischemic heart disease
			ll ll	412	Chronic ischemic heart disease12,
	IV.	DISEASES OF THE BLOOD AND BLOOD-FORMING	- 1	413	Angina pectoris
		ORGANS (280-289)		420	Acute pericarditis, non-rheumatic
280 281		Iron deficiency anemiasOther deficiency anemias	4	421	Acute and subacute endocarditis
282			12	422	Acute myocarditis
		Hereditary hemolytic anemias	24	423	Chronic disease of pericardium,
283		Acquired hemolytic anemias	4		non-rheumatic
284		Aplastic anemia	59	424	Chronic disease of endocardium
285		Other and unspecified anemias	50	425	Cardiomyopathy
286		Coagulation defects	31	426	Pulmonary heart disease
287		Purpura and other hemorrhagic conditions	18	427	Symptomatic heart disease
288		Agranulocytosis	20	428	Other myocardial insufficiency
289		Other diseases of blood and blood-forming	11	429	Ill-defined heart disease
		organs	18	430	Subarachnoid hemorrhage
	٧.	MENTAL DISORDERS (290-315)	- 11	431	Cerebral hemorrhage 1,
200		Contle and amountly days ::	,,	432	Occlusion of precerebral arteries
290		Senile and presentle dementia	18	433	Cerebral thrombosis 2,
291		Alcoholic psychosis	19	434	Cerebral embolism
294		Psychosis associated with other physical	- 11	435	Transient cerebral ischemia
		conditions	1	436	Acute but ill-defined cerebrovascular
295		Schizophrenia	8		disease 2,
296		Affective psychoses	ı	437	Generalized ischemic cerebrovascular
298		Other psychoses	1		disease 1,
299		Unspecified psychosis	2	438	Other and ill-defined cerebrovascular
300		Neuroses	1		disease
303 304		Alcoholism Drug dependence	176 163	440	Arteriosclerosis1,
			II.	441	Aortic aneurysm (non-syphilitic)
305		Physical disorder presume psychogenic	1	442	Other aneurysm
306		Special symptoms not elsewhere classified	5	443	Other peripheral vascular disease
309		Mental disorders not specified as psychotic	H	444	Arterial embolism and thrombosis
		associated with physical conditions	41	445	Gangrene
313		Severe mental retardation	3	446	Polyarteritis nodosa and allied conditions-
315		Unspecified mental retardation	17	447	Other diseases of arteries and arterioles
				448	Diseases of capillaries
	VI.	DISEASES OF THE NERVOUS SYSTEM AND SENSE	- 11	450	Pulmonary embolism and infarction
		ORGANS (320-389)	li li	451	Phlebitis and thrombophlebitis
320		Meningitis	57	452	Portal vein thrombosis
321		Phlebitis and thrombophlebitis of intracranial	- II	453	Other venous embolism and thrombosis
		venous sinuses	1	454	Varicose veins of lower extemities
322		Intracranial and intraspinal abscess	8	456	Varicose veins of other sites
323		Encephalitis, myelitis and encephalomyelitis	18	457	Non-infective disease of lymphatic
324		Late effects of intracranial abscess or	i i i		channels
220		pyogenic infection	1	458	Other diseases of circulatory system
330 331		Hereditary neuromuscular disorders Hereditary diseases of the striatopallidal	31		
		system	16	VIII	. DISEASES OF THE RESPIRATORY SYSTEM
332		Hereditary ataxia	1		(460-519)
333		Other hereditary and familial diseases of	.		
240		nervous system	6	460	Acute nasopharyngitis (common cold)
340		Multiple sclerosis	72	462	Acute pharyngitis
261		Astronomy and the second	[]	463	Acute tonsillitis
341		Other demyelinating diseases of central	. !!	465	Acute upper respiratory infection of
262		nervous system	1		multiple or unspecified sites
342		Paralysis agitans	144	466	Acute bronchitis and bronchiolitis
343 344		Cerebral spastic infantile paralysis	29	470	Influenza, unqualified
		Other cerebral paralysis	55	471	Influenza with pneumonia
345		Epilepsy	84	472	Influenza with other respiratory
347		Other diseases of brain	107		manifestations
348		Motor neurone disease	79	473	Influenza with digestive manifestations
349		Other diseases of spinal cord	8	480	Viral pneumonia
354		Polyneuritis and polyradiculitis	7		
357		Other diseases of peripheral nerves except autonomic	5	481 482	Other besterial preumonia
			il.	482 483	Other bacterial pneumonia Pneumonia due to other specified
374		Cataract	3		organism
375		Glaucoma	1	484	Acute interstitial pneumonia
381		Otitis media without mention of mastoiditis	6	485	Bronchopneumonia, unspecified
387		Other diseases of ear and mastoid process	1	486	Pneumonia, unspecified 1,I
389		Other deafness	1	490	Bronchitis, unqualified
		DISEASES OF THE CIRCULATORY SYSTEM (390-458)		491 492	Chronic bronchitis 1,0 Emphysema1,0
390		Rheumatic fever without mention of heart		493	Asthma
		involvement	1	500	Hypertrophy of tonsils and adenoids
391		Rheumatic fever with heart involvement	11	501	Peritonsillar abscess
393		Diseases of pericardium	7	503	Chronic sinusitis
394		Diseases of mitral valve	136	508	Other diseases of upper respiratory
395		Diseases of aortic valve	157		tract
396		Diseases of mitral and sortic valves	40	510	
397		Diseases of other endocardial structures	27	511	
398		Other heart disease, specified as			
		rheumatic	184	512	Spontaneous pneumothorax
		A Marchane College Control of the Co	184	513	Abscess of lung
				514	Pulmonary congestion and hypostasis

#### TABLE 4.12 NUMBER OF DEATHS BY CAUSE MICHIGAN RESIDENTS, 1973 (continued)

LIST NUMBER		CAUSE OF DEATH	NUMBER	ICDA LIST NUMBER		CAUSE OF DEATH	NUME
515		Pneumoconiosis due to sílica and silicates	- 25	651		Delivery complicated by placenta previa or antepartum hemorrhage	
516		Other pneumoconioses and related diseases	. 1	652		Delivery complicated retained placenta	
517		Other chronic interstitial pneumonia	146	653		Delivery complicated other postpartum	
518		Bronchiectasis	- 29			hemorrhage	
519		Other diseases of respiratory system	- 444	660		Delivery complicated other obstetrical	
313		***************************************				trauma	
	TX.	DISEASES OF THE DIGESTIVE SYSTEM (520-577)		670		Sepsis of childbirth and the puerperium	
		DECEMBER 1, 112 PROPERTY OF THE PROPERTY OF TH		673		Puerperal pulmonary embolism	
525		Other diseases and conditions of the teeth		674		Cerebral hemorrhage in puerperium	
323		and supporting structures	- 2	675		Puerperal blood dyscrasias	
526		Diseases of the jaws	- 1				
528		Diseases of oral soft tissue excluding			XII.	DISEASES OF THE SKIN AND SUBCUTANEOUS	
320		gingive and toneue	- 1			TISSUE (680-709)	
530		Diseases of esophagus	- 41				
531		Iller of stomach	- 145	680		Boil and carbuncle	
532		Ulcer of duodenum	- 123	682		Other cellulitis and abscess	
533		Peptic ulcer, site unspecified	- 48	686		Other local infections of skin and	
534		Gastrojejunal ulcer	- 29			subcutaneous tissue	
535		Gastritis and duodenitis	- 27	692		Other eczema and dermatitis	
536		Disorders of function of stomach	- 2	694		Pemphigus	
***				695		Erythematous conditions	
537		Other diseases of stomach and duodenum	- 20	700		Corns and callosities	
540		Acute appendicitis	- 29	707		Chronic ulcer of skin	
541		Appendicitis, unqualified	- 2	708		Urticaria	
550		Inguinal hernia without mention of obstruction	- 2	709		Other diseases of skin	
551		Other hernia of abdominal cavity without					
		mention of obstruction	- 31		XIII.	DISEASES OF THE MUSCULOSKELETAL SYSTEM	
552		Inguinal hernia with obstruction	- 16			AND CONNECTIVE TISSUE (710-738)	
553		Other hernia of abdominal cavity with					
550		obstruction	- 41	710		Acute arthritis due to pyogenic organisms	
560		Intestinal obstruction without mention of hernia		712		Rheumatoid arthritis and allied	
561		Non-infect gastroenteritis and colitis	- 1			conditions	
562		Diverticula of intestine	- 157	713		Osteoarthritis and allied conditions	
302		Diverticula of Interstance		715		Arthritis, unspecified	
563		Chronic enteritis and ulcerative colitis	- 44	716		Polymyositis and dermatomyositis	
563 564		Functional disorders of intestines	- 6	717		Other non-articular rheumatism	
566		Abscess of anal and rectal regions	- 2	720		Osteomyelitis and periostitis	
567		Peritonitis	- 38	721		Osteitis deformans	
568		Peritoneal adhesions		723		Other diseases of bone	
569		Other diseases of intestines and peritoneum	- 217	725		Displacement of intervertebral disc	
570		Acute and subscute necrosis of liver	- 21				
571		Cirrhosis of liver	- 1,711	729		Other diseases of joint	
572		Suppurative hepatitis and liver abscess	- 3	733		Other diseases of muscle, tendon	
573		Other diseases of liver	- 91			and fascia	
				734		Diffuse diseases of connective tissue	
574		Cholelithiasis	- 81	735		Curvature of spine	
575		Cholecystitis and cholangitis, without		737		Hallux valgus and varus	
		mention of calculus	- 46				
576		Other diseases of gall bladder and biliary			XIV.	CONGENITAL ANOMALIES (740-759)	
		ducts					
577		Diseases of pancreas	- 142	740		Anencephalus	
				741		Spina bifida	
•	х.	DISEASES OF THE GENITOURINARY SYSTEM (580-629)		742		Congenital hydrocephalus	
				743		Other congenital anomalies of nervous system	
580		Acute nephritis	- 47				
581		Nephrotis syndrome	- 20	745		Congenital anomalies of ear, face and neck	
582		Chronic nephritis	- 209				
583		Nephritis, unqualified	- 41	746		Congenital anomalies of heart	
584		Renal sclerosis, unqualified	- 6	747		Other congenital anomalies of	
590		Infections of kidney	- 180			circulatory system	
591		Hydronephrosis	- 6	748		Congenital anomalies of respiratory	
592		Calculus of kidney and ureter	- 17			system	
593		Other diseases of kidney and ureter	- 179	749		Cleft palate and cleft lip	
594		Calculus of other parts of urinary system	- 5	750		Other congenital anomalies of upper	
						alimentary tract	
595		Cystitis	- 11			A.1	
596		Other diseases of bladder	- 10	751		Other congenital anomalies of digestive	
598		Stricture of urethra	- 4			system	
599		Other diseases of urinary tract	- 55	752		Congenital anomalies of genital organs	
600		Hyperplasia of prostate	- 40	753		Congenital anomalies of urinary system	
601		Prostatitis	- 6	755		Other congenital anomalies of limbs	
602		Other diseases of prostate	- 20	756		Other congenital anomalies of	
603		Hydrocele	1			musculoskeletal system	
607		Other diseases of male genital organs	- 6	758		Other and unspecified congenital	
614		Salpingitis and oophoritis, unqualified	- 2			anomalies	
				759		Congenital syndromes affecting multiple	
616		Diseases of parametrium and pelvic				systems	•
		peritoneum (female)	8				
620		Infective diseases of cervix uteri	1		XV.	CERTAIN CAUSES OF PERINATAL MORBIDITY	
622		Infective diseases of uterus (except cervix),				AND MORTALITY (760-779)	
		vagina and vulva	- 1				
623		Uterovaginal prolapse	5	761		Other maternal conditions unrelated to	
625		Other diseases of uterus	- 7			pregnancy	
626		Disorders of menstruation	1	762		Toxemia of pregnancy	-
629		Other diseases of female genital organs	3	763		Maternal ante- and intrapartum infection	-
027		court officer of terrate Sentral orSans.	,	764		Difficult labor with abnormality of bones,	
	V 7	. COMPLICATIONS OF PREGNANCY, CHILDBIRTH AND		, , , ,		organs or tissues of pelvis	
	VI.	THE DISCOUNT OF ENDOMANCE, UNLEADERED AND		766		Difficult labor with malposition of	
		THE PUERPERIUM (630-678)		700		fetus	
				747		Difficult labor with abnormality of	
				767		forces of labor	
631		Ectopic pregnancy	4	740		Difficult labor with other and unspecified	
		Hemorrhage of pregnancy	2	768			
632			3			complications	-
634		Other complications of pregnancy	,				
		Other complications of pregnancy———————————————————————————————————		769		Other complications of pregnancy and childbirth	. ,

#### TABLE 4.12 NUMBER OF DEATHS BY CAUSE MICHIGAN RESIDENTS, 1973 (continued)

A LIST NUMBER	CAUSE C	F DEATH	NUMBER	ICDA LIST NUMBER	CAUSE OF DEATH	NU
770		ons of placenta	73	E864	Accidental poisoning by petroleum	_
771		ons of umbilical cord	20	1	products and other solvents	
772		njury without mention of cause	77	E865	Accidental poisoning by pesticides,	
774 775		ic disease of newborn with kernicterus	1		fertilizers or plant food	
175		ic disease of newborn without mention		E869	Accidental poisoning by other and	
776		and hypoxic conditions not elsewhere	21	E870	unspecified solid and liquid substances	
		ifiable	695	1 5070	Accidental poisoning by gas distributed by pipeline	
777		ity, unqualified		E871	Accidental poisoning by liquefied petro-	
778	Other c	anditions of fetus or newborn	97	]	leum gas distributed in mobile containers	
	XVI. SYMPTOM	S AND ILL DEFINED CONDITIONS (780-796)		E873	Accidental poisoning by motor vehicle	
		- 11-0 200 00121110110 (700-770)		E875	exhaust gas	
780	Symptom	s referable nervous system senses	6	1013	Accidental poisoning by other carbon monoxide	
782	Symptom	s referable to cardiovascular and		E876	Accidental poisoning by other gases	
300	1 ymph	atic system	69		and vapors	
783 784		s referable to respiratory system	4	E880	Fall on or from stairs or steps	
704	tract	s referable to upper gastrointestinal		E881	Fall on or from ladders or scaffolding	
785		s referable to abdomen and lower	1	E882	Fall from or out of building or other	
		ointestinal tract	2	2002	structure	
786	Symptom	s referable genitourinary system	1	E883	Fall into hole or other opening in surface	
788	Other g	eneral symptoms	9	E884	Other fall from one level to another	
792			1.7	E885	Fall on same level from slipping, stumbling	
794 795		y without mention of psychosis	20		or tripping	
793	suaden	death (cause unknown)	221	E886	Fall on same level collision, pushing,	
796	Other i	li-defined and unknown causes of		F087	shoving or other	
	morbi	dity and mortality	212	E887	Other and unspecified falls	
		•		E890	Accident caused by conflagration in private dwelling	
	XVII. ACCIDEN	rs, Poisonings and violence		E891	Accident caused by conflagration in	
	EXT	ERNAL CAUSE (E800-E999)			other building or structure	
E901	n - 41		1.1	E892	Accident caused by conflagration not in	
E801	Kai Iway	accident involving collision with	. []		building or structure	
E805		rolling stock	6	E893	Accident caused by ignition of clothing	
E807		accident of unspecified nature	2	E894	And done A but I do to the A	
E810	Motor v	chicle traffic accident involving	- !!	2074	Accident caused by ignition of highly	
	collis	sion with train	50	E895	inflammable materialAccident caused by controlled fire in	
E812		chicle traffic accident involving			private dwelling	
P010	collis	sion with another motor vehicle	1,052	E896	Accident caused by controlled fire in	
E813		chicle traffic accident involving	! !		other building or structure	
E814		sion with other vehicle	73	E897	Accident caused by controlled fire not in	
		sion with pedestrian	372	E898	building or structure	
E815		tor vehicle traffic accident involving	372	2070	Accident caused by other specified fires or flames	
	collis	ion	243	E899	Accident caused by unspecified fire	
E816	Non-coll	ision motor vehicle traffic accident	- 11	E900	Excessive heat	
	due to	loss of control	404	E901	Excessive cold	
E818	0.5	114.4.	- 11	E902	High and low air pressure	
2010	ocher no	en-collision motor vehicle traffic	23	E904	Hunger, thirst, exposure and neglect	
E819		hicle traffic accident of unspecified	23	E905	No. 1 a	
	nature		109	E903	Bites and stings of venomous animals and insects	
E820	Motor ve	hicle non-traffic accident involving	11	E906	Other accidents caused by animals	
	collis	ion with moving object	27	E907	Lightning	
E821		hicle non-traffic accident involving		E910	Accidental drowning and submersion	
E822		ion with stationary object	1	E911	Inhalation and ingestion of food causing	
6022	motor ve	hicle non-traffic accident boarding	. 11		obstruction or suffocation	
E823	Motor ve	hicle non-traffic accident of other	1	E912	Inhalation and ingestion of other object	
_	and un	specified mature	34	E913	causing obstruction or suffocation	
E826	Pedal cy	cle accident	3	E915	Accidental mechanical suffocation	
E827		n-motor road vehicle accident	š	5,23	Foreign body accidentally entering other orifice	
E830		to watercraft causing submersion	30	E916	Struck accidentally by falling object	
E831	Accident	to watercraft causing other injury	4	E917	Striking against or struck accidentally	
E832	Other as	cidental submersion or drowning in	] [		by object	
		cidental submersion or drowning in transport	2/	2016		
E833	Pall on	stairs or ladders in water transport	24	E918 E919	Caught accidentally in or between objects	
E837	Explosio	n fire burning and in water transport	1	E919 E920	Overexertion and strenuous movements	
E838	Other an	d unspecified water transport accident	7	1,720	Accident caused by cutting or piercing instruments	
E841	Accident	to powered aircraft, other and		E921	Accident caused by explosion of pressure	
P9/./.		ified	64		vessel	
E844 E851		ecified air transport accident	5	E922	Accident caused by firearm missiles	
	weerneur	al poisoning by hormones and synthetic	, 11	E923	Accident caused by explosive material	
E852		al poisoning by primarily systematic	i	E924	Accident caused by hot substance,	
	and he	matologic agents	2	E925	corrosive liquid and steam	
E853		al poisoning by analgesics and	- 11	E925 E927	Accident caused by electric current	
	antip	yretics	26	E928	Vehicle accident not elsewhere classifiable-	
E854	Accident	al poisoning by other sedatives and	-~	E 720	Machinery accidents not elsewhere	
	hypnot	ics	22		classifiable	
	· ·			E929	Other and unspecified accidents	
E855	Accident	al poisoning by autonomic nervous	11	E930	Complications and misadventures in	
E857	system	and psychotherapeutic drugs	4		operative therapeutic procedures	
E859	Accident	al poisoning by cardiovascular drugs	1	E931	Complications and misadventures in other	
2000	Accident	al poisoning by other and unspecified			and unspecified therapeutic procedures	
E860		and medicaments	33	E932	Complications and misadventures in	
E861	Accident	al poisoning by alcoholal poisoning by cleansing and	7	2035	diagnostic procedures	
	polish	ng agents	, il	E935	Complications and misadventures in other	
			· 11		prophyla procedures	

TABLE 4.12 NUMBER OF DEATHS BY CAUSE MICHIGAN RESIDENTS, 1973 (continued)

ICDA LIST NUMBER	CAUSE OF DEATH	NUMBE
E936	Complications and misadventures in	
2734	other non-therapeutic procedures	1
E940	Late effect of motor vehicle accident	7
E941	Late effect other transport accident	1
E942	Late effect of accidental poisoning	î
E942 E943	Late effect of accidental fall	4
	Late effect of other accident	6
E946		4
E947	Late effect of surgical operation	
E948	Late effect of irradiation	1
E950	Suicide and self-inflicted poisoning	
	by solid or liquid substances	184
E951	Suicide and self-inflicted poisoning by gases in domestic use	1
	by gases in domestic doc	
E952	Suicide and self-inflicted poisoning	
	by other gases	172
E953	Suicide and self-inflicted injury by	
	hanging, strangulation and suffocation	177
E954	Suicide and self-inflicted injury by	
	submersion (drowning)	29
E955	Suicide and self-inflicted injury by	
	firearms and explosives	507
E956	Suicide and self-inflicted injury by	
2,30	cutting and piercing instruments	1.2
E957	Suicide and self-inflicted injury by	-
2,57	jumping from high place	16
E958	Suicide and self-inflicted injury by	
E930	other and unspecified means	19
	other and unspecified means	4
E960	Fight, brawl or rape	
E963	Assault by hanging and strangulation	45
E964	Assault by submersion (drowning)	2
E965	Assault by firearms and explosives	819
E966	Assault by cutting and piercing	
2700	instruments	164
E967	Assault by pushing from high place	1
E968	Assault by other and unspecified means	112
E969	Assault by other and unspectified means	112
E909	Late effect of injury purposely inflicted by other person	2
B070	by other person	-
E970	Injury due to legal intervention by	
	firearms	31
E980	Poisoning by solid or liquid substances,	
	undetermined whether accidentally or	
	purposely inflicted	37
E982	Poisoning by other gases, undetermined	
	whether accidentally or purposely	
	inflicted	11
E983	Hanging and strangulation undetermined	6
E984	Submersion (drowning), undetermined whether	
	accidentally or purposely inflicted	27
	,	
E985	Injury by firearms and explosives, undeter-	
2,03	mined whether accidentally or purposely	
	inflicted	32
F086	Injury by cutting and piercing instruments,	32
E986		
	undetermined whether accidentally or	,
	purposely inflicted	1
E987	Falling from high places undetermined	
	whether accidentally or purposely	
	inflicted	8
E988	Injury by other and unspecified means,	
	undetermined whether accidentally or	
	purposely inflicted	40
E989	Late effects of injury undetermined whether	-41
6707	accidentally or purposely inflicted	1
	accidentally of pulposety intificed	,
	mom.r.	70 500
	TOTAL	78,52
		-

TABLE 4.13—Population by Age and Sex, Michigan Residents, 1973

AGE	TOTAL	%	MALES	%	FEMALES	%
0-4 Years	795,556	8.78	406,468	9.13	389,457	8.45
5-9	852,640	9.41	434,070	9.75	418,682	9.08
10-14	946,875	10.45	481,706	10.82	464,808	10.08
15-19	943,250	10.41	479,926	10.78	462,840	10.04
20-24	735,753	8.12	346,811	7.79	388,711	8.43
25-29	624,303	6.89	295,168	6.63	329,508	7.15
30-34	574,468	6.34	296,058	6.65	278,286	6.04
35-39	472,078	5.21	239,072	5.37	233,489	5.07
40-44	482,951	5.33	241,744	5.43	241,183	5.23
45-49	531,881	5.87	262,223	5.89	269,655	5.85
50-54	506,510	5.59	243,524	5.47	262,681	5.70
55-59	438,553	4.84	212,360	4.77	226,602	4.92
60-64	357,003	3.94	170,512	3.83	186,401	4.04
65-69	273,642	3.02	127,772	2.87	145,998	3.17
70-74	202,966	2.24	88,595	1.99	114,249	2.48
75-79	147,694	1.63	60,992	1.37	86,706	1.88
80-84	111,450	1.23	42,294	0.95	68,848	1.49
85 and Over	63,427	0.70	22,705	0.51	40,896	0.89
TOTAL	9,061,000	100.0	4,452,000	100.0	4,609,000	99.99

TABLE 4,14
POPULATION CHANGES BY COUNTY
MICHIGAN RESIDENTS, 1973

		MICHIG	AN RESIDENTS, 1973		
Area	Population Estimates July 1, 1963	Revised Population Estimates July 1, 1973	Percent Change	Natural Increases	Net Migratio
STATE	8,030,000	9,061,000	12.8	879,549	151,451
Alcona	6,100	8,300	36.1	67	2,133
Alger	8,900	8,200	-7.9	304	-1,004
Allegan	56,900	69,800	22.7	6,110	6,790
Alpena	28,900	32,300	11.8	2,832	568
Antrim	10,400	13,900	33.7	451	3,049
Arenac	9,500	12,500	31.6	553	2,447
Baraga	7,400	7,700	4.1	443	-143
Barry	28,800	40,800	41.7	2,963	9,037
Bay	106,000	118,700	12.0	12,268	432
Benzie	8,000	9,000	12.5	273	727
Berrien	154,100	167,400	8.6	17,768	-4,468
Branch	34,700	39,600	14.1	2,308	2,592
Calhoun	137,300	140,600	2.4	13,182	-9,882
Cass	37,200	43,000	15.6	2,981	2,819
Charlevoix	14,000	17,700	26.4	954	2,746
Cheboygan	13,800	18,700	35.5	1,134	3,766
Chippewa	35,800	34,400	-3.9	4,882	-6,282
Clare	12,100	19,300	59.5	684	6,516
Clinton	41,900	48,500	15.8	5,916	684
Crawford	5,200	7,700	48.1	335	2,165
Delta	33,800	38,000	12.4	2,076	2,124
Dickinson	24,300	24,000	-1.2	465	-765
Eaton	52,200	72,800	39.5	6,517	14,083
Emmet	16,100	20,100	24.8	1,169	2,831
Genesee	401,700	449,900	12.0	61,105	-12,905
Gladwin	10,200	15,400	51.0	597	4,603
Gogebic	22,000	20,400	-7.3	-459	-1,141
Grand Traverse	35,300	43,300	22.7	3,171	4,829
Gratiot	37,500	40,400	7.7	4,257	-1,357
Hillsdale	33,800	39,400	16.6	2,740	2,860
Houghton	34,900	36,500	4.6	327	1,273
Huron	34,500	35,400	2.6	2,268	-1,368
Ingham	222,700	266,900	19.8	34,135	10,065
Ionia	43,600	47,800	9.6	4,270	-70
Iosco	20,700	28,200	36.2	3,660	3,840
Iron	15,900	13,600	-14.5	-599	-1,701
Isabella	35,200	48,400	37.5	4,510	8,690
Jackson	133,900	143,400	7.1	12,523	-3,023
Kalamazoo	174,600	200,800	15.0	19,717	6,483
Kalkaska	4,400	6,500	47.7	216	1,884
Kent	378,200	416,200	10.0	41,489	-3,489
Keweenaw	2,500	2,200	-12.0	-116	-184
Lake	5,200	6,400	23.1	-185	1,385
Lapeer	43,400	58,100	33.9	5,607	9,093
Leelanau	9,400	12,000	27.7	377	2,223
Lenawee	75,700	83,700	10.6	7,716	284
Livingston	39,600	68,900	74.0	5,183	24,117
Luce	7,200	7,600	5.6	160	240
Mackinac	10,600	10,500	-0.9	573	-673
Macomb	477,200	644,800	35.1	84,594	83,006
Manistee	19,200	21,200	10.4	809	1,191
Marquette	61,400	68,700	11.9	6,988	312
Mason	21,700	24,800	14.3	839	2,261
Mecosta	21,800	33,500	53.7	2,329	9,371
Menominee	24,300	24,800	2.1	816	-316
Midland Missaukee Monroe Montcalm Montmorency	52,500	65,200	24.2	8,831	3,869
	6,400	7,900	23.4	244	1,256
	104,200	124,600	19.6	13,202	7,198
	37,200	42,700	14.8	3,216	2,284
	4,200	6,400	52.4	19	2,181
Muskegon	152,700	158,000	3.5	16,425	-11,125
Newaygo	24,700	29,000	17.4	1,855	2,445
Oakland	724,900	941,300	29.9	97,620	118,780
Oceana	16,600	19,200	15.7	1,270	1,330
Ogemaw	9,200	13,000	41.3	193	3,607
Ontonagon	11,100	10,900	-1.8	469	-669
Osceola	13,500	17,100	26.7	986	2,614
Oscoda	3,500	5,700	62.9	10	2,190
Otsego	8,400	12,600	50.0	1,014	3,186
Ottawa	103,600	138,400	33.6	14,454	20,346
Presque Isle	13,000	13,500	3.8	835	-335
Roscommon	7,300	12,800	75.3	-202	5,702
Saginaw	196,500	226,600	15.3	27,742	2,358
St. Clair	106,600	127,800	19.9	10,322	10, <b>8</b> 78
St. Joseph	42,300	50,100	18.4	3,629	4,171
Sanilac	32,900	37,900	15.2	2,184	2,816
Schoolcraft	8,400	8,400	0.0	251	-251
Shiawassee	55,000	67,300	22.4	7,322	4,978
Tuscola	43,800	51,900	18.5	4,557	3,543
Van Buren	50,700	60,500	19.3	4,094	5,706
Washtenaw Wayne Wexford Not Stated	184,300 2,656,200 18,600 0	244,300 2,613,900 21,300 0	32.6 -1.6 14.5 0.0	28,467 233,052 1,237 -1	31,533 -275,352 1,463

Note: County totals rounded to nearest hundred State totals rounded to nearest thousand

FIGURE 4.1—Population by Region, 1 Michigan, 1973

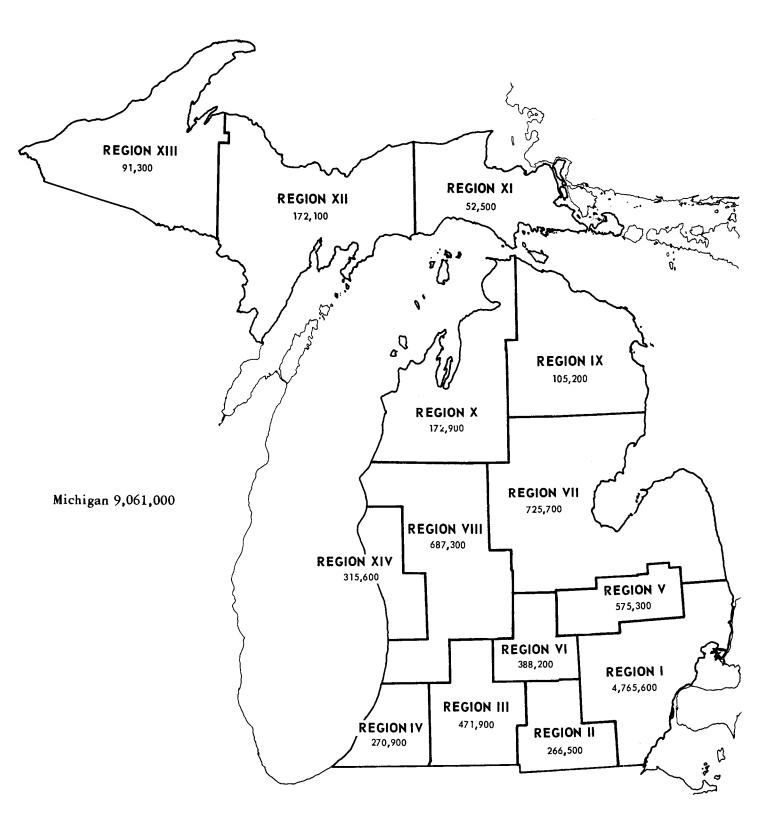


FIGURE 4.2—Population Density, Live Birth Rates, Illegitimate Live Birth Rates, Fetal Death Ratios, Death Rates and Infant Death Rates by Region, Michigan Residents, 1973

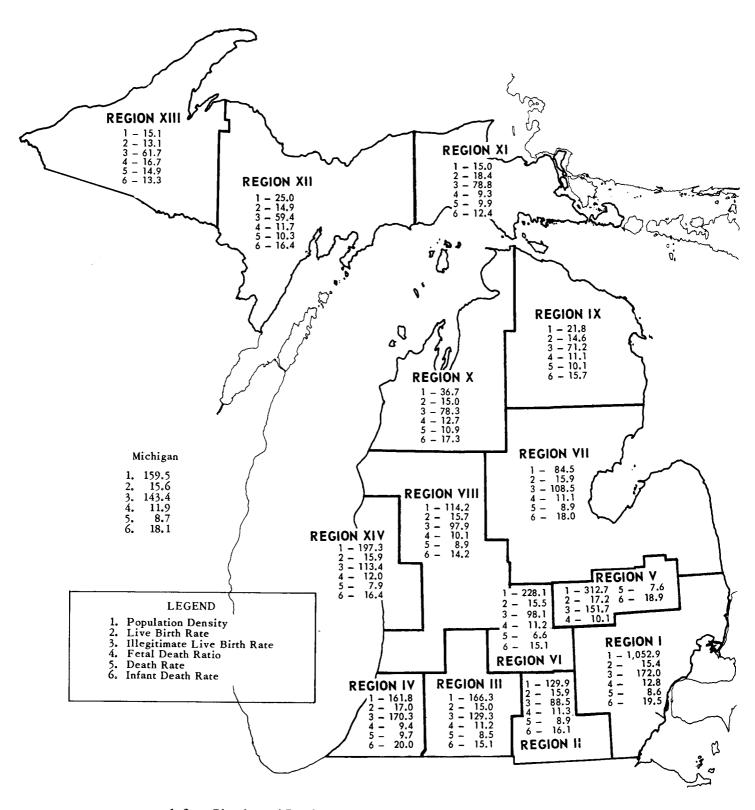


FIGURE 4.3—Leading Causes of Death; Number of Deaths by Region,<sup>1</sup>
Michigan Residents, 1973

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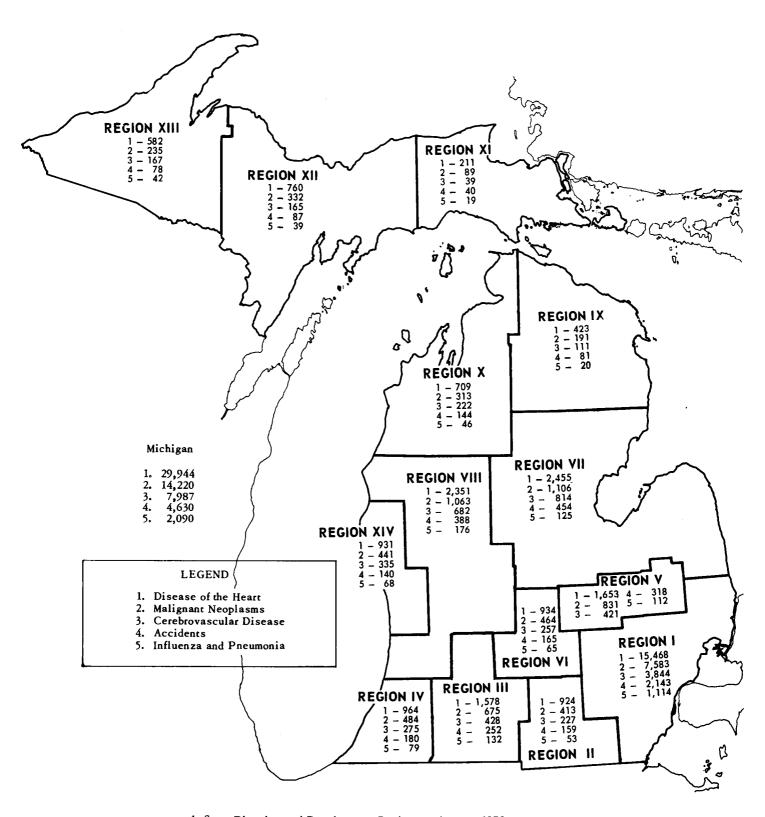
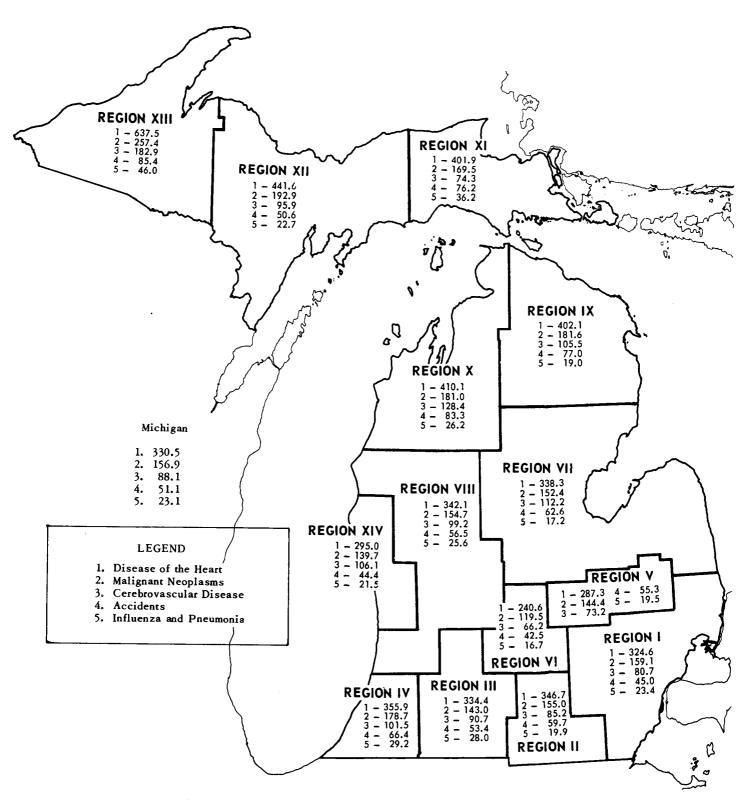


FIGURE 4.4—Leading Causes of Death; Rates by Region,<sup>1</sup>
Michigan Residents, 1973



	L	FILE NUMBER	CERTIFIC			CHEALTH F	121 —	NUMBER		
	CHILD- NAME	FIRST	MIDDLE		AST	DATE OF BIRT	H (MONTH, DAY, YEAR)		HOUR	
	Citiz Time									м
	I. SEX	THIS BIRTH-	SINGLE, TWIN, TRIPLET, ETC.	IF NOT S	INGLE BIRTH	BORN FIRST, SECON	D, COUNTY OF BIRTH		26	
CHILD	3.	4a.		4b.			5a.			
	CITY, VILLAGE OR TOW	NSHIP OF BIRTH	INSIDE CITY LIMITS		NAME	(IF NO	T IN HOSPITAL, GIVE STREET AN	D NUMBER)		
	5b.	ME FIRST	Sc.	Sd.	······································	AGE (AT TIM	OF STATE OF BIRTH	F NOT IN II S A	NAME COU	NTRY )
	MOTHER—MAIDEN NAM	NE FIKST	MIDDLE			THIS BIRTH )	i fic.		,	
OTHER	RESIDENCE — STATE	COUNTY	CITY, VILLAGE O	OR TOWNSHIP			LIMITS STREET AND NUMBI	ER .		
	70.	7b.	76.			7d.	7e.			
ATHER	FATHER-NAME	FIRST	MIDDLE	LA	ST	AGE (AT TIME THIS BIRTH)	OF STATE OF BIRTH	F NOT IN U.S.A.	, NAME COU	NTRY )
	Ba.					8b	Bc.			
	INFORMANT 9a.						RÉLATION TO CHILE			
	STATED ABOVE.	NAMED CHILD WAS BORN	ALIVE AT THE PLACE AND TIME AN	D ON THE DATE	DATE SIG	NED MOTH,	( SPECIFY )	NT — M.D., D.O.	, MIDWIFE, OT	HER
ERTIFIER	100. SIGNATURE CERTIFIER — NAME		TYPE OR PRINT)		106.	AC RES	(STR. OR R.F.D. NO., C	ITY OR TOWN, ST	ATE, ZIP)	
	10d. REGISTRAR SIGNATUI	RÉ		$H_{1}$	10e.	H	DATE RECEIVED B		ISTRAR AR	
	11a					U~	116.			
			ON PENETR MO	-	_	AL AND HEAL	<del></del>			
		RACE—FATHER		SPECIA		DE COMPLETED	PREVIOUS DELIVERIES	ALL ALLINE   1450		
ATHER	WHITE, NEGRO, AMERICA (SPECIFY)	N INDIAN, ETC.	(4 23 (.)	OA T	TIGH SCHOOL 1,2,3, 08 4)	COLLEGE (1,2,3,4, 0R 5 +1	14a. 14b.	AD (FETA AFTE 14c.	L DEATH AT A	.NY TIME N)
	<del>\</del>	RACE—MOTHER	EDUCATION	ON — SPECIFY	HIGHEST GR	ADE COMPLETED	DATE OF LAST LIVE BIR	1	F LAST FETAL	DEATH
	WHITE, NEGRO, AMERICAN		ELEMENTA (0,1,2,3,4,	LRY 6	(1,2,3, QR 4)	COLLEGE (1,2,3,4, OR 5+)	MONTH DAY	YEAR	DAY DAY	YEAR
AOTHER	15.		16.				170.	17Ь.		
MOTINEX	DATE LAST NORMAL ME	NSES BEGAN YEAR	MONTH OF PREGNANCY PREN BEGAN FIRST, SECOND, THIRD ETC. (SE	ATAL CARE FCIFY)		L VISITS TOTAL NO SO STATE )	UMBER LEGITIMATE (SPECIFY YES OR NO) 20.	BIRTH WEIGHT		
	COMPLICATIONS RELATE	D TO PREGNANCY		R WRITE "NONE		URIES TO CHILD			BE OR WRITE	"NONE"
	22.				23.					
	COMPLICATIONS NOT R	RELATED TO PREGNANC	CY (DESCRIBE O	R WRITE "NONE	ONGEN	ITAL MALFORMATIO	NS OR ANOMALIES OF CH	ILD (DESCRI	BE OR WRITE	"NONE"
	24. COMPLICATIONS OF LA	BOR	(DESCRIBE OF	WRITE "NONE	25.  1 HAVE EYES O	DE CHILD BEEN TREATED WITH	H ONE PERCENT SOLUTION			
	26.				27.					
	WAS MOTHER'S BLOOD TESTED THIS PREGNANCY?	FOR SYPHILIS DURING	DATI	F OF TEST		IF	BLOOD NOT TESTED, STATE REASON			
B-213	28.		99			30.	LI∨F BIRTH(S)		FFTAL DEATH	(5)
7-68 300M	DEATH NO CONTROL OF AGE	NTER STATE FILE NUMBER OF DEATH JERTIFICATE FOR HIS CHILD				MULTIPLE BIRTHS ENTER STATE FILE NUMBER FOR	FI∆E RIKIH(2)		TEL DEATH	11

#### DETACH INSTRUCTIONS BEFORE FILING CERTIFICATE WITH REGISTRAR

## TYPE OR PRINT (EXCEPT SIGNATURES) IN BLACK INK-THIS IS A PERMANENT RECORD

Michigan Public Act 343 of 1925, as amended, requires that certificates of birth be filed with the registrar of the district in which the birth occurred within five days after the event.

Many important legal, personal, public health, and social welfare interests require complete and accurate registration of all births. Individuals need certification of the facts of birth for evidence of age, of citizenship, and of family relationship. Social and health agencies need medical and social information concerning the child and his parents for administrative and statistical purposes. In order to protect the privacy of the individual to whom this certificate applies, most of the information of the latter type has been placed in a section of the certificate labeled: "Confidential Information for Medical and Health Use Only."

In case of more than one child at birth, a SEPARATE RETURN must be made for each and the number of each in order of birth stated.

Accurate recording of the residence (not mailing address) of the mother is particularly important as it is used extensively for statistical purposes.



	FIRST		WIDDI	E	LA	ST	DA	TE OF DELIV	ERY (M	ONTH, DAY,	YEAR ) HOU!
],									•		
SEX	THIS DEL	IVERY — SINGLE,	TWIN. TRIPLET	ETC. IF NO	OT SINGLE DE	LIVERY	2a. BORN FIRST, SECO	ID COUNTY	OF DE	LIVERY	2b.
	(SPECIFY)		,,	THIRD,	ETC. (SPECIFY)		, 52200	-, 000111	Ç, DE	L. 7 LR 1	
3.	40.	TI	IDE CITY LIMITS	4b.			UE NOT	Sa. OSPITAL, GIVE			
CITY, VILLAGE OR TO	OMUZHIA OL RIK		CIFY YES OR NO	HOSPITAL—	NAME		(IF NOT IN A	OSPIIAL, GIVE	SIREEI AN	ID NUMBER	
5b.		5c.		5d.							
MOTHER—MAIDEN	NAME	FIRST	MIDDLE			AGE (A LIVERY) 6b.	T TIME OF THIS DE-	STATE OF	BIRTH	(IF NOT IN	U.S.A., NAME C
RESIDENCE - STATE		COUNTY		CITY, VILLAG	E OR TOWNSH	HIP IN	ISIDE CITY LIMIT		D NUM	BER	
,_		71.				(S	PECIFY YES OR NO				
FATHER-NAME	FIRST	7b.	MIDDLE	7c.	LAST	70 ACE (A	I. T TIME OF THIS DE-	STATE OF	DIDTH	/IF NOT IN	U.S.A., NAME C
TAILLE NAME	11421		MIDDIE			LIVERY)	Time Of this be-	STATE OF	DIKIN	(IF NOT IN	0.3.A., NAME C
Ba.						8b.		Bc.			
9. PART I. FETAL DEA				[ENTER O	NLY ONE CAU	SE PER L	INE FOR (a), (b),	AND (c)]			SPECIF
FETAL OR MATERNAL CONDITION DIRECTLY CAUSING FETAL DEATH	(a)	CAUSE									
		R AS A CONSEQUE	NCE OF:					-1			<del></del>
FETAL AND/OR MA- TERNAL CONDITIONS, IF ANY, GIVING RISE TO	(b)						- 17				
THE IMMEDIATE CAUSE IGI, STATING THE UN- DERLYING CAUSE LAST	DUE TO, OF	R AS A CONSEQUE	NCE OF:			_	$\mathbf{O}$	M			
	(c)					$\Box$		7			
PART II. OTHER SI	GNIFICANT CON	NDITIONS OF	FETUS OR MO	THER: CONDIT		FET DI	B RE TO.	FING LAL	R AUT	OPSY I	F YES, WERE FIN
I INIBUTING TO PETAL DE	AIR BUI NOI KELAI	ED IO CAUSE GIV									
				-1		DELL RY,	UNKT WN SPE	Α,	1	0	RED IN DETERMIN
I CERTIFY THAT THIS DELIV	VERY OCCURRED ON	THE DATE STATED		EL WA E		10.	D (1 DINTA DA	YEAR)	11a.	I I	PEATH IIb.
12a. SIGNATURE		THE DATE STATED		HI WA 13		10.	D ( DNTA DA	YEAR)	11a.	DANT — M.D.	EATH
		THE DATE STATED		FTG WA 12	DEAD DATE	10.	D (1 phil) D	YEAR)	ATTENI 12c. (SP	DANT — M.D.	PEATH IIb.
12a. SIGNATURE				FTO WAT CO	DEAD DATE	10.	O (1 DNT) DA		ATTENI 12c. (SP	DANT — M.D.	DEATH Ilb. ., D.O., MIDWIFE,
12a. SIGNATURE CERTIFIER—MAILING	ADDRESS		R.F. D	TO WAY C	DEAD DATE	10.	UTHORIZE		ATTENI 12c. (SP	DANT — M.D.	DEATH  III.  , D.O., MIDWIFE,  ATTENDED BY PH
12d. SIGNATURE CERTIFIER—MAILING 12d. BURIAL, CREMATION, (SPECIFY)	ADDRESS	(STREET)	R.F. D	7- VA E	DEAD DATE	10.	D (1 bnth ba	RE	ATTENI 12c. (SP	DANT — M.D. ECIFY) DELIVERY NOT	DEATH  III.  , D.O., MIDWIFE,  ATTENDED BY PH
12a. SIGNATURE CERTIFIER—MAILING 12d. BURIAL, CREMATION, (SPECIFY) 14a.	ADDRESS	CAL ETERY	R.F. D	TO WAY TO	DEADY DATE 12b. 1, ZIP)	10.	D (1 DNTA DA)  OUTHORIZE  13. SIGNATU  LOC  14.	RE ATION	11a. ATTENI 12c. <sup>(SP</sup>	DANT — M.D. ECIFY) DELIVERY NOT	DEATH  III.  , D.O., MIDWIFE,  ATTENDED BY PH
12a. SIGNATURE CERTIFIER—MAILING 12d. BURIAL, CREMATION, (SPECIFY) 14a.	ADDRESS	(STREET)	R.F. D	TO WAY O	DEADY DATE 12b. 1, ZIP)	10.	D (1 bnth ba	RE ATION	11a. ATTENI 12c. <sup>(SP</sup>	DANT — M.D. ECIFY) DELIVERY NOT	DEATH  III.  , D.O., MIDWIFE,  ATTENDED BY PH
12a. SIGNATURE CERTIFIER—MAILING  12d.  BURIAL, CREMATION, (SPECIFY) 14a.  DATE (MONTH, 14d.	ADDRESS  OR REMOVAL  DAY, YEAR)	CONSTRECT  CONSTRECT  14b.  FUNERAL  15a.	R.F. D	TO WA CO	DEADY DATE 12b.	10.	D (1 DNTA DA)  OUTHORIZE  13. SIGNATU  LOC  14.	RE ATION	11a. ATTENI 12c. <sup>(SP</sup>	DANT — M.D. ECIFY) DELIVERY NOT	DEATH  III.  , D.O., MIDWIFE,  ATTENDED BY PH
12a. SIGNATURE CERTIFIER — MAILING 12d. BURIAL, CREMATION, (SPECIFY) 14a. DATE (MONTH,	ADDRESS  OR REMOVAL  DAY, YEAR)	CONSTRECT  CONSTRECT  14b.  FUNERAL  15a.	R.F. D		DEADY DATE 12b.	10. E SIGI	D (1 DNTA DA)  OUTHORIZE  13. SIGNATU  LOC  14.	RE ATION	11a. ATTENI 12c. <sup>(SP</sup>	DANT — M.D. ECIFY )  DELIVERY NOT  (CITY OR TO  TATE, ZIP)	HEATH  TO CO., MIDWIFE,  ATTENDED BY PH  WN, STATE)
12a. SIGNATURE CERTIFIER—MAILING  12d.  BURIAL, CREMATION, (SPECIFY) 14a.  DATE (MONTH, 14d.	ADDRESS  OR REMOVAL  DAY, YEAR)	CONSTRECT  CONSTRECT  14b.  FUNERAL  15a.	R.F. D		DEAD LANGE 12b.	10. E SIGI	D (1 DNTA DA)  OUTHORIZE  13. SIGNATU  LOC  14.	RE ATION	11a. ATTENI 12c. <sup>(SP</sup>	DANT — M.D. ECIFY) DELIVERY NOT  (CITY OR TO  TATE, ZIP)  DATE REC	HEATH  TO CO., MIDWIFE,  ATTENDED BY PH  WN, STATE)
12a, SIGNATURE CERTIFIER—MAILING 12d. BURIAL, CREMATION, (SPECIFY) 14a. DATE (MONTH, 14d. FUNERAL DIRECTO	ADDRESS  OR REMOVAL  DAY, YEAR)	CONTERN 146. FUNERAL 150.	AROVE AND TO	REGISTRA 16a.	OEAD LONTE 12b. , ZIP)	10. E SIGN	D ( SNT) DO  UNITHORIZE  13. SIGNATE  LOC  14c.  (STREET OR R.F.D.	ATION	11a. ATTENI 12c. (SP	DANT — M.D. ECIFY )  DELIVERY NOT  (CITY OR TO  TATE, ZIP)	HEATH  TO CO., MIDWIFE,  ATTENDED BY PH  WN, STATE)
12a, SIGNATURE CERTIFIER—MAILING 12d. BURIAL, CREMATION, (SPECIFY) 14a. DATE (MONTH, 14d. FUNERAL DIRECTO	ADDRESS  OR REMOVAL  DAY, YEAR)  DR—SIGNATUR	CONFIERN 146. FUNERAL 150.	AROVE AND TO	REGISTRA 16a. IFORMATIO	DEAD LONTE 12b.  12b.  7 ZIP)	IO. SIGN	D (CONTROD  D UTHORIZE  13. SIGNATU  LOC  14c.  (STREET OR R.F.O	RE ATION NO., CITY OF	11a. ATTENI 12c. (SP	DANT — M.D.  CELIFY)  CELIFY NOT  CELIFY NOT  TATE, ZIP)  DATE REC.  M.  16b.	THE
12d. SIGNATURE CERTIFIER — MAILING 12d. BURIAL, CREMATION, (SPECIFY) 14d. FUNERAL DIRECTO 15b.  RACE — FAT WHITE, NEGRO, AMERICAN	ADDRESS  OR REMOVAL  DAY, YEAR)  OR—SIGNATUR  THER	CONFIELD	ABOVE AND TE	REGISTRA 16a.  IFORMATIO HIGHEST GRAI	DEAD LOTE 12b. 12b. 12c. 12c. 12c. 12c. 12c. 12c. 12c. 12c	III.	D (CONTROD  D UTHORIZE  13. SIGNATU  LOC  14c.  (STREET OR R.F.O	NO., CITY OF	Ila.  ATTENI  12c. (SF  (IF	DANT — M.D.  CCITY OR TO  (CITY OR TO  TATE, ZIP)  DATE REC. M  16b.	THER CHILDREN
12a. SIGNATURE CERTIFIER—MAILING  12d. BURIAL, CREMATION, (SPECIFY) 14a. DATE (MONTH, 14d. FUNERAL DIRECTO	ADDRESS  OR REMOVAL  DAY, YEAR)  OR—SIGNATUR  THER	CONFILE EDUCATION	ABOVE AND TE	REGISTRA 16a. IFORMATIO HIGHEST GRAI	DEAD LOATE 12b. 12b. 12c. 12c. 12c. 12c. 12c. 12c. 12c. 12c	LIRE  DICAL  D  ARI	D TO DATE DO TO THE PREVIOUS P	NO., CITY OF	Ila.  ATTENI  12c. (SF  (IF	DANT — M.D.  CCITY OR TO  (CITY OR TO  TATE, ZIP)  DATE REC. M  16b.	IN THE CHILDREN  LIVED BY LOCAL ONTH DAY  WHER CHILDREN  WERE BORN DEATH AT ANY TI CEFFIOR)
12a. SIGNATURE CERTIFIER — MAILING  12d. BURIAL, CREMATION, (SPECIFY) 14a. DATE (MONTH, 14d. FUNERAL DIRECTO 15b.  RACE — FAT WHITE, NEGRO, AMERICAN (SPECIFY)	ADDRESS  OR REMOVAL  DAY, YEAR)  OR—SIGNATUR  THER  H INDIAN, ETC.	CONFILE ELEMENT (1,1,2,3,4,18)	ABOVE AND TE	REGISTRA 16a. IFORMATIO HIGHEST GRAI HIGH SCHOOL 1,2,3, 08 4 1	DEAD LOTE 12b. 12b. 12b. 12c. 12c. 12c. 12c. 12c. 12c. 12c. 12c	LIRE DICAL D ARI 190	UTHORIZE  13. SIGNATI  LOC  14c.  (STREET OR R.F.D.  PREVIOUS  E NOW LIVING	H USE O S DELIVERIE WERE DEAD 19b.	Ila.  ATTENI  12c. (SF  (IF	DATE REC.  MANY OT  MANY OT  JAMES HAVE NOW	EIVED BY LOCAL ONTH DAY  HER CHILDREN  WERE BORN
12d. SIGNATURE CERTIFIER — MAILING  12d. BURIAL, CREMATION, (SPECIFY) 14d. DATE (MONTH,  14d. FUNERAL DIRECTO  15b.  RACE — FAT WHITE, NEGRO, AMERICAN (SPECIFY) 17.  RACE — MOT WHITE, NEGRO, AMERICAN (SPECIFY)	ADDRESS  OR REMOVAL  DAY, YEAR)  DR—SIGNATUR  THER  I INDIAN, ETC.	CONFIDENCE  CONFIDENCE  CONFIDENCE  CONFIDENCE  EDUCATION  18.  EDUCATION  ELEMEN  10,1,2,3,4,18.  EDUCATION  ELEMEN  ELEMEN  ELEMEN  ELEMEN  ELEMEN  ELEMEN	ABOVE AND TE	REGISTRA 16a.  IFORMATIO HIGHEST GRAI HIGHEST GRAI HIGHEST GRAI HIGHEST GRAI HIGHEST GRAI	DE COMPLETED  COLLEGE  COLLEGE  COLLEGE  COLLEGE	JRE DICAL D. ARIH 1990 D. DA	UTHORIZE  13. SIGNATI  LOC  14.  (STREET OR R.F.O.  PREVIOUS  E NOW LIVING	H USE O S DELIVERIE WERE DEAD 19b.	Ila.  ATTENI  12c. (SF  (IF	DATE REC.  MANY OT  MANY OT  JAMES HAVE NOW	EIVED BY LOCAL ONTH DAY  HER CHILDREN WERE BORN DESTRUCTION LIFE LIFE LIFE LIFE LIFE LIFE LIFE LIFE
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12d. SIGNATURE CERTIFIER—MAILING  12d. BURIAL, CREMATION, (SPECIFY) 14d. DATE (MONTH,  14d. FUNERAL DIRECTO  15b.  RACE—FAT WHITE, NEGRO, AMERICAN (SPECIFY) 17.  RACE—MOT  WHITE, NEGRO, AMERICAN (SPECIFY) 20. DATE LAST NORMAL	ADDRESS  OR REMOVAL  DAY, YEAR)  DR—SIGNATUR  THER  I INDIAN, ETC.	CONFIDENCE  CONFIDENCE  CONFIDENCE  CONFIDENCE  EDUCATION  ELEMEN  (0,1,2,3,4, 21, AR)  MONTH	DENTIAL IN  ON SPECIFY  TARY  OF PREGNANCE  OF PREGNANCE	REGISTRA 16a.  IFORMATIO HIGHEST GRAI 11,2,3, 08.41  HIGHEST GRAI 11,2,3, 08.41	DEADLE LOTE  12b.	DICAL DARIE DICAL DARIE DICAL DARIE DICAL	D TO STREET OR R.F.D.  AND HEALT PREVIOUS ENOW LIVING  ATE OF LAST LIVING  ATE OF LAST LIVING  ATE OF LAST LIVING	H USE O  S DELIVERIE  WERE DEAD 19b.  VE BIRTH ANY HERE LEGITIA	ITE. SP  (IF  TOWN, S  NLY  S  HOWN  S  NLY  S  HOWN  S  NLY  S  HOWN  S  NLY  NLY	DANT — M.D.  CCIPY )  DELIVERY NOT  TATE, ZIP)  DATE REC  M  16b.  / MANY OI  IVE— NOW  22b.	EIVED BY LOCAL ONTH DAY  HER CHILDREN WERE BORN DESTRUCTION LIFE LIFE LIFE LIFE LIFE LIFE LIFE LIFE
12a. SIGNATURE CERTIFIER—MAILING  12d. BURIAL, CREMATION, (SPECIFY) 14a.  FUNERAL DIRECTO  15b.  RACE—FAT WHITE, NEGRO, AMERICAN (SPECIFY) 17.  RACE—MOT WHITE, NEGRO, AMERICAN (SPECIFY) 20.	ADDRESS  OR REMOVAL  DAY, YEAR)  OR—SIGNATUR  HER HINDIAN, ETC.  THER HINDIAN, ETC.	CONFIDENCE  CONFIDENCE  CONFIDENCE  CONFIDENCE  EDUCATION  ELEMEN  (0,1,2,3,4, 21, AR)  MONTH	DENTIAL IN  ON SPECIFY  TARY  ON SPECIFY  TARY  ON SPECIFY  TARY  ON OR 8 )	REGISTRA 16a.  IFORMATIO HIGHEST GRAI 11,2,3, 08.41  HIGHEST GRAI 11,2,3, 08.41	DE COMPLETED  COLLEGE (1,2,3,4, 08 5 +)  RE BEGAN PRE	DICAL D ARI 190	UTHORIZE  13. SIGNATI  LOC  14.  (STREET OR R.F.D.  PREVIOUS  E NOW LIVING  AND HEALT  PREVIOUS  TO LAST LIVING  AND LIVING	H USE O S DELIVERIE WERE DEAD 19b. VE BIRTH AY YEAR	ITE. SP  (IF  TOWN, S  NLY  S  HOWN  S  NLY  S  HOWN  S  NLY  S  HOWN  S  NLY  NLY	DANT — M.D.  CCIPY )  DELIVERY NOT  TATE, ZIP)  DATE REC  M  16b.  / MANY OI  IVE— NOW  22b.	EIVED BY LOCAL ONTH DAY  HER CHILDREN WREE BORN DEATH AT ANY TI CEPTION 1 LAST FETAL DI ITH DAY  RTH WEIGHT
12a. SIGNATURE CERTIFIER—MAILING  12d. BURIAL, CREMATION, (SPECIFY) 14a. DATE (MONTH,  14d. FUNERAL DIRECTO  15b.  RACE—FAT WHITE, NEGRO, AMERICAN (SPECIFY) 17.  RACE—MOT WHITE, NEGRO, AMERICAN (SPECIFY) 20. DATE LAST NORMAL MENSES BEGAN 23. COMPLICATIONS RELA	ADDRESS  OR REMOVAL  DAY, YEAR)  DR—SIGNATUR  THER  I INDIAN, ETC.  THER  I INDIAN, ETC.  (MONTH, DAY, YEAR)	CONFIENT   14b.   FUNERAL   15c.   ELEMEN   0,1,2,3,4, 21.   ELEMEN   0,1,2,3,4, 21.   AR1   MONTH   13T, 2D, 24d.	DENTIAL IN  ON SPECIFY TARY TARY OF PREGNANCE (C) (SPECIFY)	REGISTRA 16a.  IFORMATIO HIGHEST GRAI 11,2,3, 08.41  HIGHEST GRAI 11,2,3, 08.41	DEADLE LOTE  12b.  12b.  12b.  12b.  12b.  12c.	DICAL D ARII 190 D DA + 1 1220 ENATAL V 1. SO STAFF	UTHORIZE  13. SIGNATI  LOC  14.  (STREET OR R.F.D.  PREVIOUS  E NOW LIVING  AND HEALT  PREVIOUS  TO LAST LIVING  AND LIVING	H USE O  S DELIVERIE  WERE  DEAD  JIPA  VE BIRTH  ANY  WEAR  VE BIRTH  VE BIRTH  VEAR  WEAR  VE BIRTH  VEAR  WEAR  VEAR  WEAR  VEAR  VEAR  WEAR  VEAR  VEAR  VEAR  WEAR  VEAR  VEAR  VEAR  VEAR  WEAR  VEAR   ITE. SP  (IF  TOWN, S  NLY  S  HOWN  S  NLY  S  HOWN  S  NLY  S  HOWN  S  NLY  NLY	DANT — M.D.  CCIPY )  DELIVERY NOT  TATE, ZIP)  DATE REC  MANY OT  IVE — NOW  DATE OF  MON  22b.	EIVED BY LOCAL ONTH DAY  HER CHILDREN WREE BORN DEATH AT ANY TI CEPTION 1 LAST FETAL DI ITH DAY  RTH WEIGHT	
12d. SIGNATURE CERTIFIER—MAILING  12d. BURIAL, CREMATION, (SPECIFY) 14d. DATE (MONTH,  14d. FUNERAL DIRECTO  15b.  RACE—FAT WHITE, NEGRO, AMERICAN (SPECIFY) 17.  RACE—MOT WHITE, NEGRO, AMERICAN (SPECIFY) 20. DATE LAST NORMAL MENSES BEGAN 23	ADDRESS  OR REMOVAL  DAY, YEAR)  DR—SIGNATUR  HER HINDIAN, ETC.  (MONTH, DAY, YEAR)  TED TO PREGNAN	CONFICE	DENTIAL IN  ON SPECIFY TARY (DESCRIBE	REGISTRA  16a.  IFORMATIO HIGHEST GRAI IGHE SCHOOL 1, 2, 3, 08 4 1  HIGHEST GRAI IGH SCHOOL (1, 2, 3, 08 4 1)  Y PRENATAL CA	DEAD LOTE  12b.  1	DICAL	UTHORIZE  13. SIGNATE  LOC  14.  (STREET OR R.P.D.  PREVIOU E NOW LIVING  AND HEALT  PREVIOU E NOW LIVING  VISITS TOTAL NU	H USE O  S DELIVERIE  WERE DEAD 19b. WE BIRTH VEAR WERE LEGITIA 25.	III ATTENII IZc. (SP (IIF TOWN, S  NLY S—HOW BORN AL	DANT — M.D.  CCITY OR TO  CCITY OR TO  TATE, ZIP)  DATE REC. M  16b.  / MANY OI  IVE—NOW  DATE OF MON  22b.  ECIPY  B1	EIVED BY LOCAL ONTH DAY  THER CHILDREN  WREE BORN DEATH AT ANY TI CEPTION 196.  RTH WEIGHT

#### DETACH INSTRUCTIONS BEFORE FILING CERTIFICATE WITH REGISTRAR

B-35 1-68

#### TYPE OR PRINT (EXCEPT SIGNATURES) IN BLACK INK-THIS IS A PERMANENT RECORD

Michigan Public Act 343 of 1925, as amended, requires that the attending physician, or in the absence of an attending physician, a coroner shall fill out and sign the medical certificate of fetal death (stillbirth) within 24 hours after death.

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.

Many important legal, personal, public health, and social welfare interests require complete and accurate registration of all fetal deaths. Social and health agencies need medical and social information concerning the child and his parents for administrative and statistical purposes. In order to protect the privacy of the individual to whom this certificate applies, most of the information of this type has been placed in a section of the certificate labeled: "Confidential Information for Medical and Health Use Only."



	LOCAL FI	E NUMBER		Michigan De	partment of I	Public Health			STATE FILE	NUMBER
	DECEASED - NAME	FIR	ST	MIDDLE		LAST	SEX	DATE OF	F DEATH ( MON	TH, DAY, YEAR )
CEASED	RACE WHITE, NEGRO, AMER	ICAN INDIAN,	AGE-LAST BIRTHDAY (YEARS	UNDER 1 YEAR ) MOS. DAYS	UNDER 1 DAY	DATE O	F BIRTH (MONTH,	DAY, COUNTY	OF DEATH	
•	CITY, VILLAGE, OR T	OWNSHIP OF	DEATH	INSIDE CITY LIMITS SPECIFY YES OR NO	HOSPITAL (	J6. OR OTHER INS	TITUTION—NAM	70. E (IF NOT IN EITHE	R, GIVE STREET AN	ID NUMBER )
	<u>7b.</u>			76.	76.					
	STATE OF BIRTH (IF NOT	IN U.S.A., NAMI COUNTRY		AT COUNTRY	WIDOWED,	IEVER MARRIEI DIVORCED ( si	PECIFY )	VING SPOUSE (IF	WIFE, GIVE MAID	EN NAME)
SIDENCE CEASED IF DEATH O IN ON, GIVE	8. SOCIAL SECURITY NUMB	ER	9. USUAL OCCUPA WORKING LIFE, EV	ATION (GIVE KIND O	TO.	DURING MOST C	III.	JSINESS OR INDU	JSTRY	
BEFORE	12. RESIDENCE — STATE	COUNTY	13a.	CITY, VILLAGI	E OR TOWN	NSH1P	13b.		AND NUMBER	
<b>→</b>	14a.	14h		140			(SPECIFY YES	OR NO.)		
NTS	FATHER—NAME	FIRST	N	IDDLE	LAST	MOTHER-	MAIDEN NAME	FIRST	MIDDLE	LAST
	15.				,	16.				
	INFORMANT—NAME				MAILING A	DDRESS	(STREET OR	CITION	I TOWN, STATE, ZII	<b>P</b> )
	PART I. DEA	TH WAS CAUSI	D BY:		ITE.	Y ONE CAUSE	PL LIL TA R (C	(b Ar (c))		APPROXIMATE INTERVAL
	18.	IMMEDIATE	CAUSE		4		1.1			
ISE	WHICH GAVE RISE TO IMMEDIATE CAUSE (D), STATING THE UNDER- LYING CAUSE LAST	(c)		ca : The Re	EAT ALL NOT	RELATED TO CAU	SE GIVEN IN PART	I (a)	AUTOPSY (YES OR NO)	IF YES WERE FINDINGS CO.
	ACCIDENT, SUICIDE, HO	MICIDE, DA	TE OF INJURY	TI DAY, YEAR)	HOUR	ном	INJURY OCC	JRRED (ENTER NA	19a. TURE OF INJURY II	OF DEATH 19b. N PART I OR PART II, ITEM 18 )
	( SPE (	(IFY ) 20b			20ε.	M. 20d.				
	INJURY AT WORK (SPECIFY YES OR NO) 20e.	PLACE OF IN OFFICE BLDG., E	JURY AT HOME, FAR TC. (SPECIFY)	M, STREET, FACTORY,	LOCATION 20g.	(	STREET OR R.F.D.	NO., CITY OR TOWN	N, STATE)	
	CERTIFICATION ME PHYSICIAN: 1 ATTENDED THE 216. DECEASED FROM	ONTH DAY	YEAR TO	MONTH DAY			IM/HER ALIVE ON DAY YEAR	I DID/DID NOT VI BODY AFTER DEATH	THE DEATH C	DCCURRED AT THE PLACE, ON THE BE DATE, AND, TO THE BE OF MY KNOWLEDGE, D M. TO THE CAUSE(S) STATI
	CERTIFICATION—MEDICA EXAMINATION OF THE BODY DEATH OCCURRED ON THE DA 22a.	AND/OR THE INV	ESTIGATION, IN MY	OPINION,	HOUR OF	DEATH M.	MONTH	S PRONOUNCED DEA	D YEAR	HOUR
	CERTIFIER-NAME (TYPE O	R PRINT)		i	SIGNATURE			DEGREE OR		TE SIGNED (MONTH, DAY, YEAR)
IFIER	230. MAILING ADDRESS—CER	TIFIER		STREET OR R.	3b. F.D. NO.		CITY OR TOWN		23c. STATE	ZIP
	BURIAL, CREMATION, RE	MOVAL	CEMETERY OF	R CREMATORY—NA	AME		LOCATION	CITY, VILLAGE	, TWP. OR CO	DUNTY STATE
1101	24a.	, DAY, YEAR I	24b.	DME—NAME AND	ADDRESS		24c.	R TOWN, STATE, ZII	• 1	
RIAL	24d.	, DAT, TEAR	250.	DME — NAME AND	ADDRESS	STREET OR R.	r.b. NO., CIII O	K 104N, 31A1E, 211	•	
6 8	FUNERAL DIRECTOR—SIG	SNATURE		l l	AR—SIGNAT	URE		DA 266		LOCAL REGISTRAR
OVA	₹ 25b.			260.				268	).	

#### DETACH INSTRUCTIONS BEFORE FILING CERTIFICATE WITH REGISTRAR

#### TYPE OR PRINT (EXCEPT SIGNATURES) IN BLACK INK—THIS IS A PERMANENT RECORD

Michigan Public Act 343 of 1925, as amended, requires that the attending physician, or in the absence of an attending physician, a coroner shall fill out and sign the medical certificate of death within 24 hours after death.

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.

Many important legal, personal, public health and social welfare interests require complete and accurate registration of all deaths. Individuals need certification of the facts of death for insurance claims, liquidation of estates, to prove name of spouse and parents and other general legal use. Social and health agencies need information on the causes of death for purposes of planning health programs; they need information on the number of births and deaths in making population estimates; and they need birth and death statistics to measure the fertility and mortality of various racial, economic or social groups.



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This space reserved for binding.

\*Except for signature, spaces loft blank must be completed by typewriter or printed legibly. Act 96, P.A. 1855 B138 ORIGINAL\* No.....19\_\_\_\_ LICENSE AND CERTIFICATE OF MARRIAGE and CLERK'S OFFICE County of Received for record the .....day of ----- A. D. 19---- and recorded in liber\_\_\_\_of marriages, on page\_\_\_\_ ----- Clerk \*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.

THE DUPLICATE must be delivered to one of the parties joined in marriage.

11

# RECORD OF DIVORCE OR ANNULMENT

MICHIGAN DEPARTMENT OF PUBLIC HEALTH VITAL RECORDS SECTION

STATE FILE	NO.	<del></del>	
DOCKET NO.			

#### COUNTY

(	HUSBAND - NAME	FIRST	MIDO	DIE	LAST		
	1.					weint city thurs	
HUSBAND	RESIDENCE—STATE	COUNTY	C1	TY, VILLAGE, OR TOWNS	HIP	(SPECIFY YES OR NO)	
NOSUAIND	20.	26.	2c	TE OF BIRTH LIF NOT IN U.S.A., N	AME DATE OF BIRTH	(MONTH, DAY, YEAR)	
*	STREET AND NUMBER		5.7	COUN		,,	
·	> <sup>2e</sup> .	FIRST	AIDDLE 3.		MAIDEN NAME		
	WIFE - NAME	rikai		1 I U			
1	RESIDENCE STATE	COUNTY	T <sub>C</sub>	Y LLA E. OR TOWNS	\$6. H1₽	INSIDE CITY LIMITS	
WIFE				11 1		( SPECIFY YES ON NO )	
	STREET AND NUMBER			TE DEVERTH CIF NOT IN U.S.A., N		( MONTH, DAY, YEAR )	
		1 W 1 1 1 1	T 111	COUNT	a a		
`	PLACE OF THIS MARRI GL CC TY	S I M JINE A.	NA E COOMING	TE OF THIS (MONTH, DAY, YE	AR) APPROXIMATE D		
	· .	MIII L	MA 9c	RRIAGE	10		
	LIVING CHILDREN - TOTAL WMB	JN E. 18 YEARS	PLAINTIFF	HUSBAND, WIFE, OTHER	(SPECIFY)		
	DF GE		12				
	ATTORNEY FOR PLAINTIFF - VAN	7	ADDRESS	I STREET OR R.F.D. NO., CITY	OR TOWN, STATE, ZIP)		
	13a		13 Б.				
1	OF THE ABOVE NAMED PERSONS	MONTH DAY YE	TYPE OF DECREE -	ABSOLUTE DIVORCE OR ANNULMENT	DECREE GRANTED TO	HUSBAND, WIFE, OTHER	
	WAS DISSOLVED ON:		14b.		14¢.		
	LEGAL GROUNDS FOR DECREE	PECIFY I	COUNTY OF DECE	ÆĒ	DATE OF RECORDING (MONTH, DAY, YEAR)		
DECREE	14d		14e.		141.		
	COURT OFFICIAL—SIGNATURE		TITLE OF COURT	OFFICIAL	COURT NAME		
ļ	14g.	·	14h.		141.		
			CONFIDENTIAL INFO	DRMATION	<del> </del>		
1	NUMBER OF THIS MARRIAGE	IF PREVIOUS	SLY MARRIED ENDED BY	EDUCATION - SP	ECIFY HIGHEST G	RADE COMPLETED	
HUSBAND	FIRST, SECOND,	DEATH	DIVORCE OR	ELEMENTARY	HIGH SCHOOL	COLLEGE	
NOSBAND	ETC. (SPECIFY)	(SPECIFY	IF NONE)	(0,1,2,3,4, OR 8	(1, 2, 3, OR 4)	(1,2,3,4, OR 5 +)	
	15.	16.	SLY MARRIED	17.		DADE COMPLETED	
1	NUMBER OF THIS MARRIAGE	HOW MANY	ENDED BY			COLLEGE	
WIFE	FIRST, SECOND E TC. (SPECIFY)	DEATH	DIVORCE OR ANNULMENT	ELEMENTARY (0, 1, 2, 3, 4, OR 8	HIGH SCHOOL (1,2,3, OR 4)	(1,2,3,4, OR 5 +)	
B- 42 1/69	18.	(SPECIFY	IF NONE)	20.			
J- 42 1/ 07					1		

## Names and Ages of All Children in Family

Name	Age:
Name	Age
Name	<b>Age</b>
Name	Age
Name	Age
Name	Age