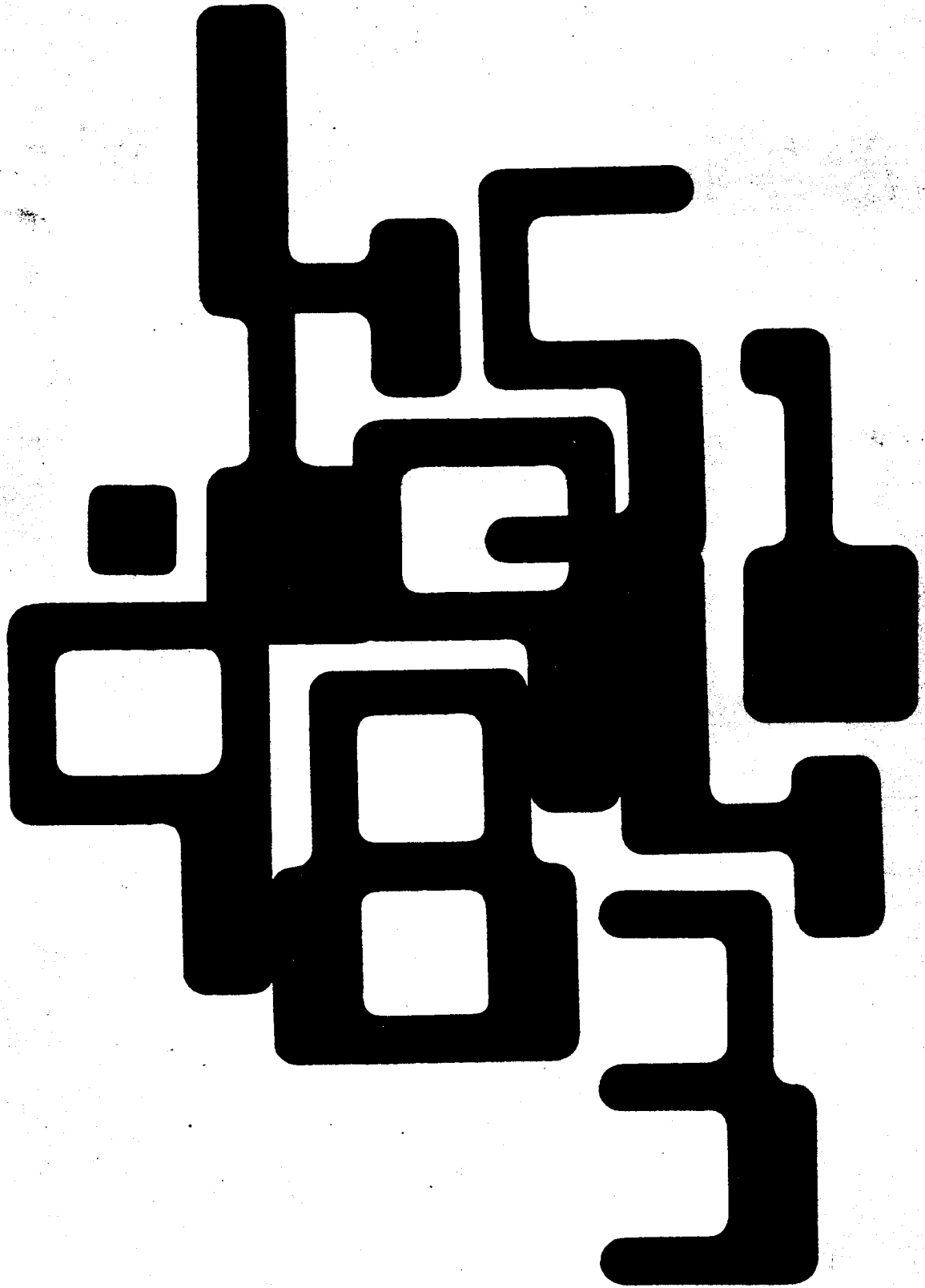


# 1971 MICHIGAN HEALTH STATISTICS

Michigan Department of Public Health 

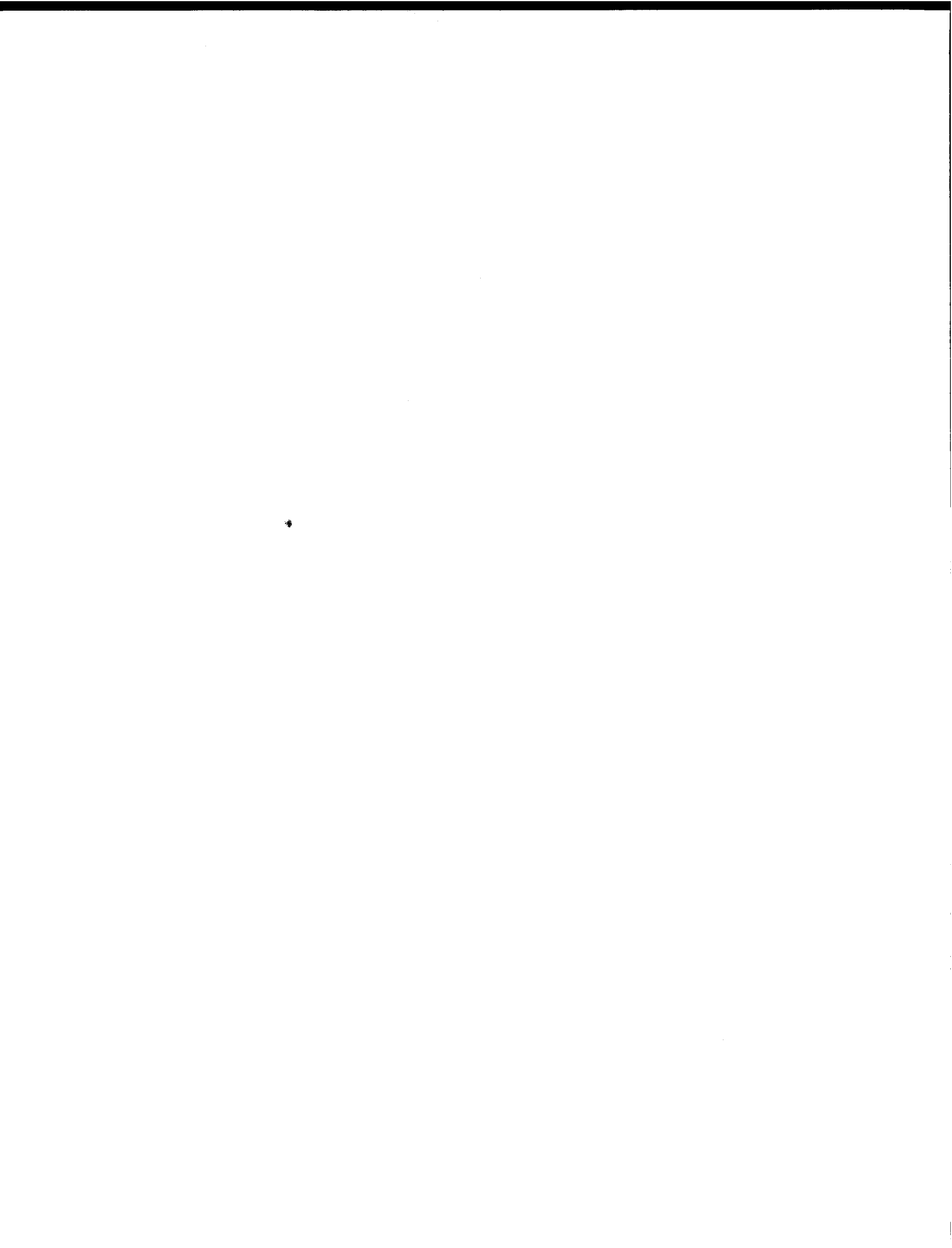


MICHIGAN HEALTH STATISTICS

ANNUAL STATISTICAL REPORT

1971

MICHIGAN CENTER FOR HEALTH STATISTICS  
Michigan Department of Public Health  
Lansing 48914



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## INTRODUCTION

The 1971 Edition of Michigan Health Statistics is a statistical summary of vital events for calendar year 1971. 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 1971, 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.

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, 1972 and all in-state certificates and records received prior to April 1, 1972. Although a few records for calendar year 1971 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 1971 and thus the 1971 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. Technical Notes
2. Natality Section
3. Mortality Section
4. Marriage and Divorce Section
5. 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 Center for Health Statistics. The Center 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 decedent is as stated on certificate. Race of child is determined from the race of the parents.
Gestational Period	Number of weeks elapsed between the first day of the last menstrual 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	= $\frac{\text{No. of Resident Live Births}}{\text{Total Resident Population}} \times 1,000$
Crude Death Rate	= $\frac{\text{No. of Resident Deaths}}{\text{Total Resident Population}} \times 1,000$
Age-Specific Birth Rate	= $\frac{\text{No. of Resident Live Births for a Specific Age of Mother}}{\text{Total Female Population of Specific Age}} \times 1,000$
Fertility Rate	= $\frac{\text{No. of Resident Live Births}}{\text{Total Female Population (15-44)}} \times 1,000$
Fetal Death Rate	= $\frac{\text{No. of Resident Fetal Deaths}}{\text{Total Resident Live Births and Resident Fetal Deaths}} \times 1,000$
Illegitimacy Ratio	= $\frac{\text{No. of Resident Illegitimate Births}}{\text{Total Resident Live Births}} \times 1,000$
Low-Weight Birth Ratio	= $\frac{\text{No. of Low-Weight Births}}{\text{Total Resident Live Births}} \times 1,000$
Infant Death Rate	= $\frac{\text{No. of Infant Deaths}}{\text{Total Resident Live Births}} \times 1,000$
Neonatal Death Rate	= $\frac{\text{No. of Neonatal Deaths}}{\text{Total Resident Live Births}} \times 1,000$
Perinatal Death Rate	= $\frac{\text{No. of Perinatal Deaths}}{\text{Total Resident Live Births and Resident Fetal Deaths}} \times 1,000$

Maternal Death Rate	=	$\frac{\text{No. of Maternal Deaths}}{\text{Total Resident Live Births}}$	x 10,000
Age-Specific Death Rate	=	$\frac{\text{No. of Deaths in Specific Age Group}}{\text{Total Resident Population in Specific Age Group}}$	x 100,000
Age-Adjusted Death Rate	=	$\Sigma (\text{Age-Specific Death Rates} \times \text{Proportion of Standard Population in Specific Age Group})$	
Marriage Rate	=	$\frac{\text{No. of Persons Married}}{\text{Total Resident Population}}$	x 1,000
Divorce Rate	=	$\frac{\text{No. of Persons (Divorces and Annulments)}}{\text{Total Resident Population}}$	x 1,000
Communicable Disease Case Rate	=	$\frac{\text{No. of Reported Cases (Specific Communicable Disease)}}{\text{Total Resident Population}}$	x 100,000
Sex Ratio	=	$\frac{\text{No. of Males}}{\text{No. of Females}}$	x 100

## 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.

### 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.

SECTION I  
NATALITY  
AN OVERVIEW

Total Births - 1971	- 164,167
Total Resident Live Births - 1971	- 162,244
Total Resident Fetal Deaths - 1971	- 1,923
Crude Birth Rate - 1971	- 18.0
Fetal Death Ratio - 1971	- 11.9
Fertility Rate - 1971	- 84.7
Illegitimacy Ratio - Live Births - 1971	- 117.7
Illegitimacy Ratio - Fetal Deaths - 1971	- 181.0
First Order Births (Percent of Total Live Births) - 1971	- 37.2
No Prenatal Care Ratio - 1971	- 11.8
Nonwhite Births (Percent of Total Live Births) - 1971	- 17.3
Median Age of Mother (Live Births) - 1971	- 24
Median Age of Mother (Fetal Deaths) - 1971	- 24





## HISTORICAL PERSPECTIVE

Between 1900 and 1971, 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 recorded 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.

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 16.2 in 1933 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 resident live birth rates and fetal death ratios for Michigan since 1900. As can be observed quite clearly from the graph, birth rates have shown considerable fluctuation 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 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 for 1971.

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 (Table 1.1).

FIG. 1.1  
LIVE BIRTHS  
MICHIGAN RESIDENTS, 1900-1971

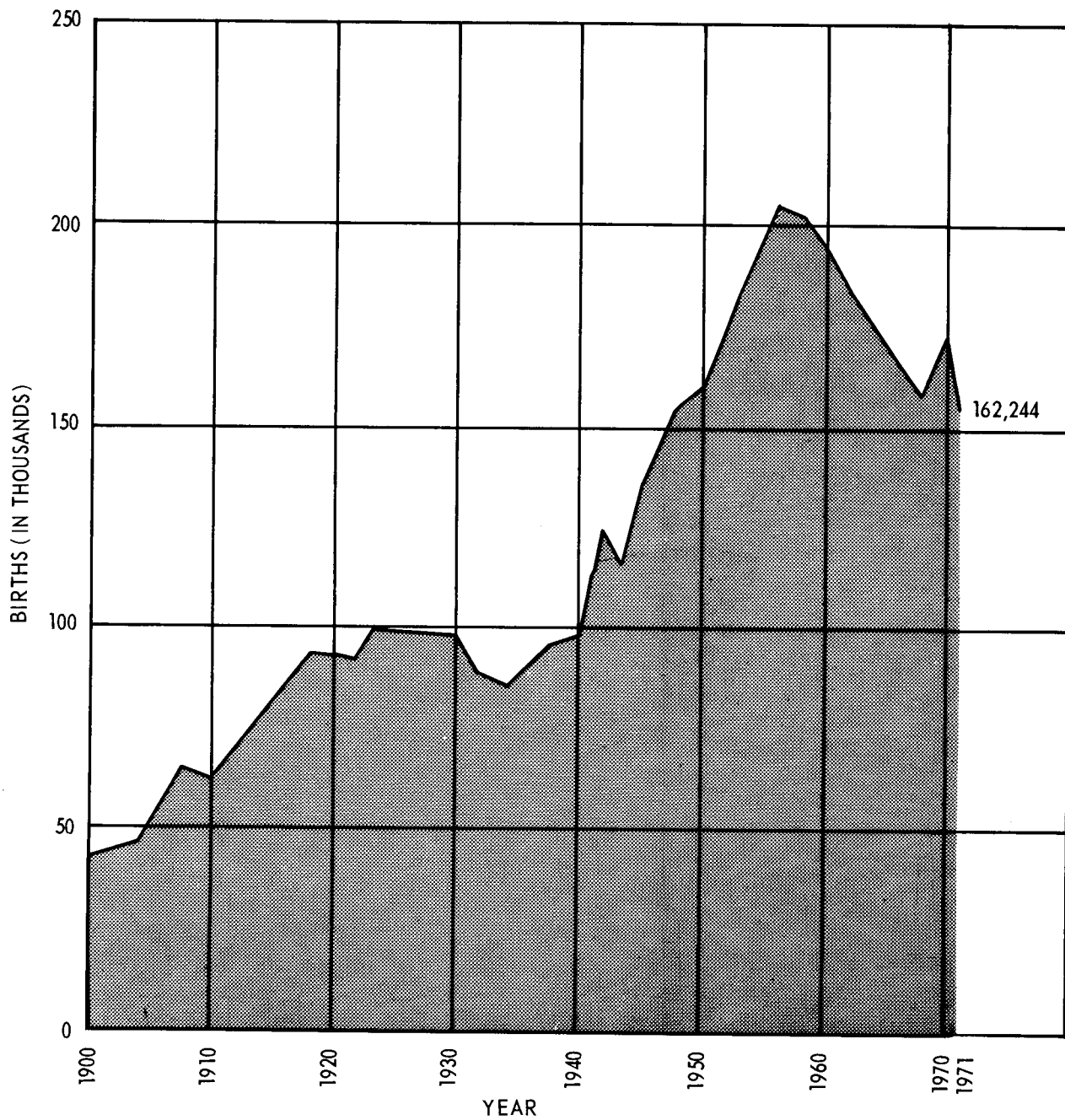


FIG. 1.2  
FETAL DEATHS  
MICHIGAN RESIDENTS, 1900-1971

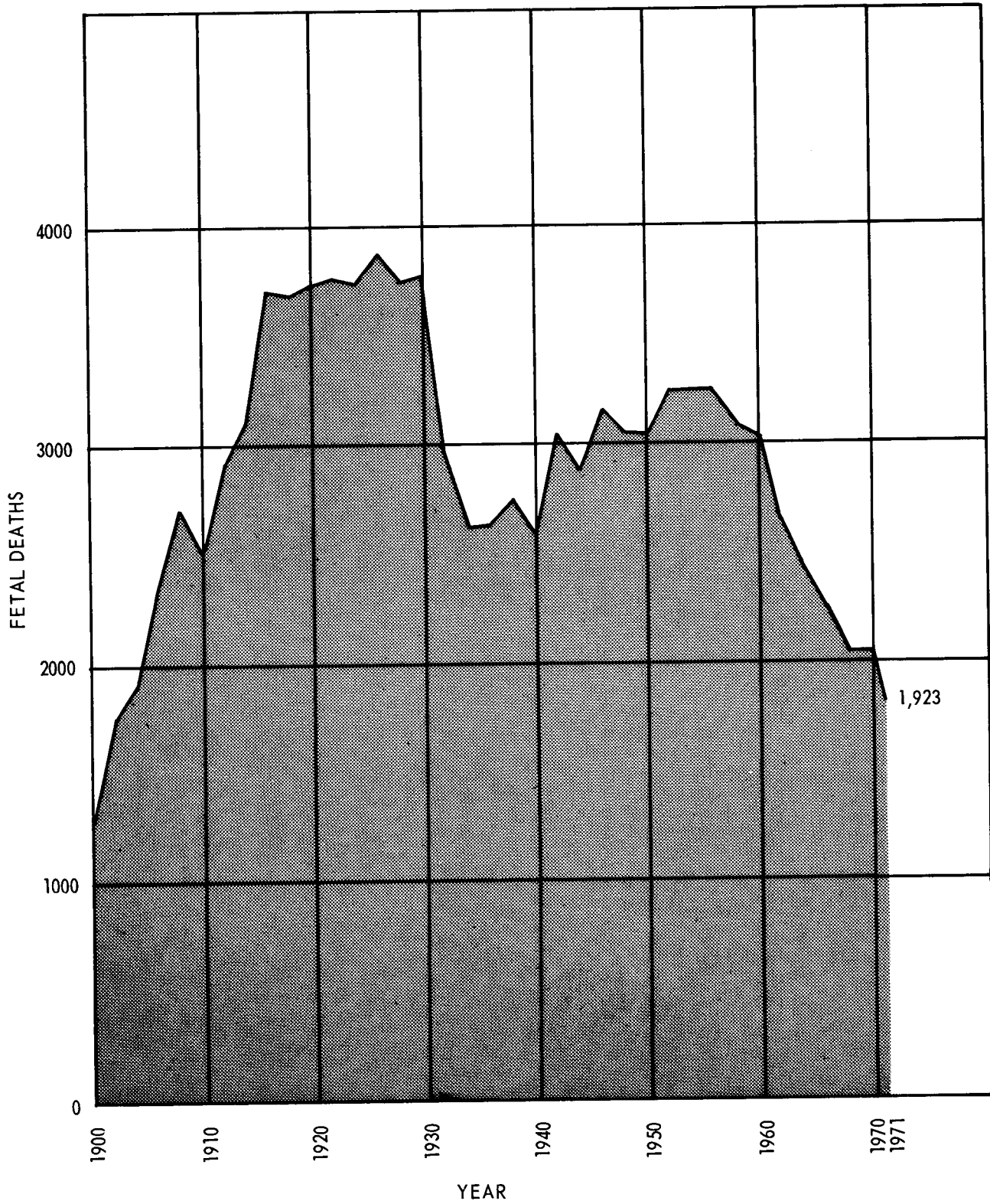


FIG. 1.3  
 LIVE BIRTH RATE AND FETAL DEATH RATIO  
 MICHIGAN RESIDENTS, 1900-1971

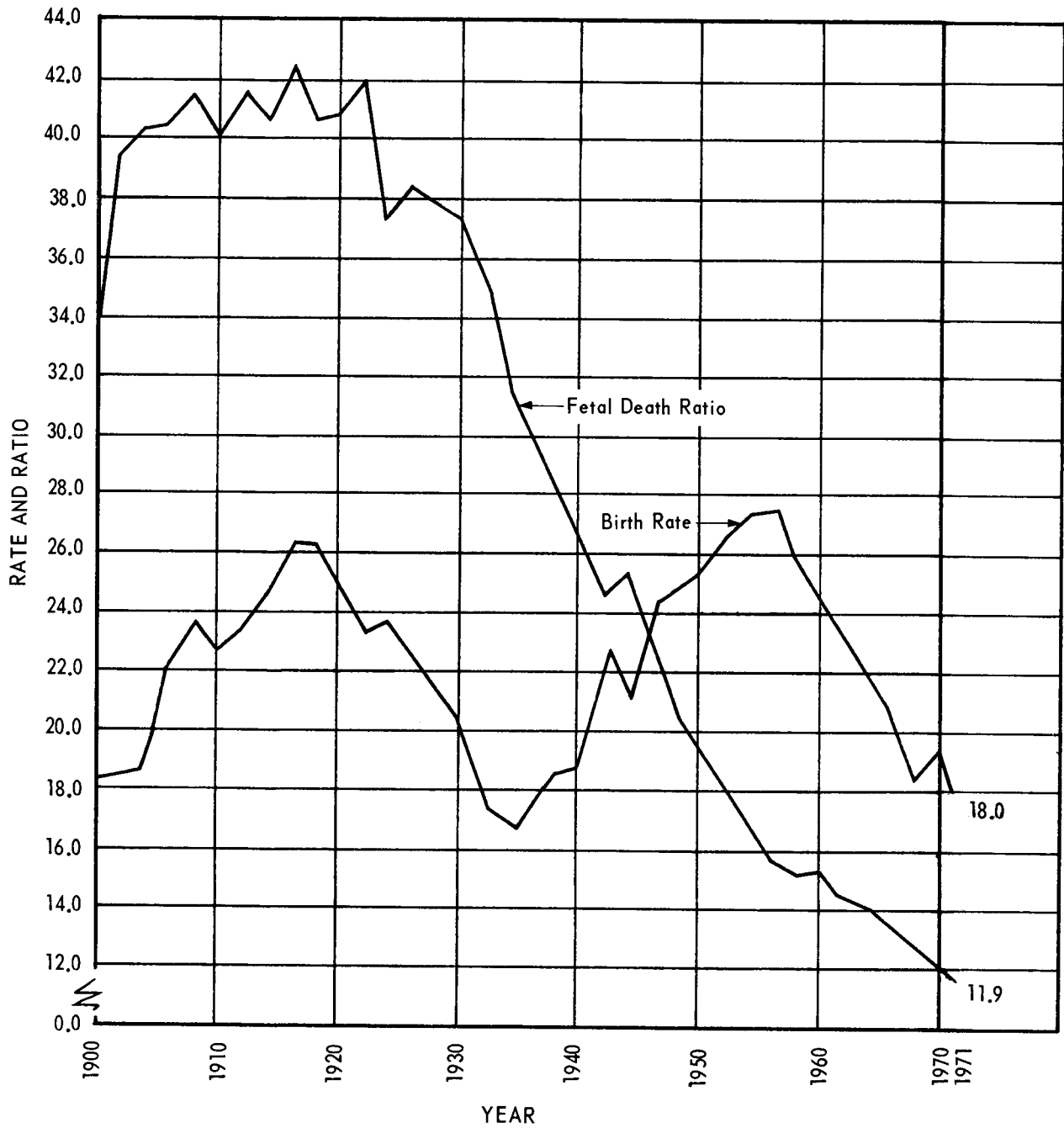


TABLE 1.1

Live Births and Crude Birth Rates  
Michigan and United States Residents  
Selected Years, 1900-1971

UNITED STATES		YEAR	MICHIGAN	
LIVE BIRTHS	RATE		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
3,571,000 Pr.	17.7 Pr.	1969	165,760	19.0
3,718,000 Pr.	18.2 Pr.	1970	171,667	19.3
3,559,000 Pr.	17.3 Pr.	1971	162,244	18.0

## 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 childbearing 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 1.2

Fertility Rates  
Michigan and the United States  
Selected Years - 1900-1971

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
87.6	1970	91.7
81.9	1971	84.7

RACE COMPOSITION

During the decade from 1961 to 1971 the racial composition of births in Michigan was also changing. As can be seen from Table 1.3, the number of nonwhite births increased by 32.2 percent from 21,241 in 1961 to 28,079 in 1971. In addition to the fact that nonwhite births were increasing in absolute terms, an inspection of Table 1.3 indicates that nonwhite births accounted for 11.0 percent of all births to Michigan residents. In 1971, 17.3 percent of all births were recorded as nonwhite.

TABLE 1.3

Live Births by Race  
Michigan Residents, 1961-1971

YEAR	TOTAL BIRTHS		WHITE BIRTHS		NON-WHITE BIRTHS	
	Number	% of all Births	Number	% of all Births	Number	% of all Births
1961	192,825	100.0	171,584	89.0	21,241	11.0
1962	182,790	100.0	162,554	88.9	20,236	11.1
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



## 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 1961 and 1971 the illegitimacy ratio increased from 41.6 to 117.7, an increase of 182.9 percent (Figure 1.4).

Mothers of illegitimate children tend to be somewhat younger than the mothers of legitimate children (Table 1.4). The median age of mothers having illegitimate births is 19 compared to a median age of 24 for all live births. The median age for nonwhite mothers who have illegitimate births is 19 compared to an overall nonwhite median age of 22.

Nonwhite mothers account for approximately 58 percent of all illegitimate births and it can be observed (Table 1.4) that young nonwhite mothers, in particular, have a greater proportion of illegitimate births.

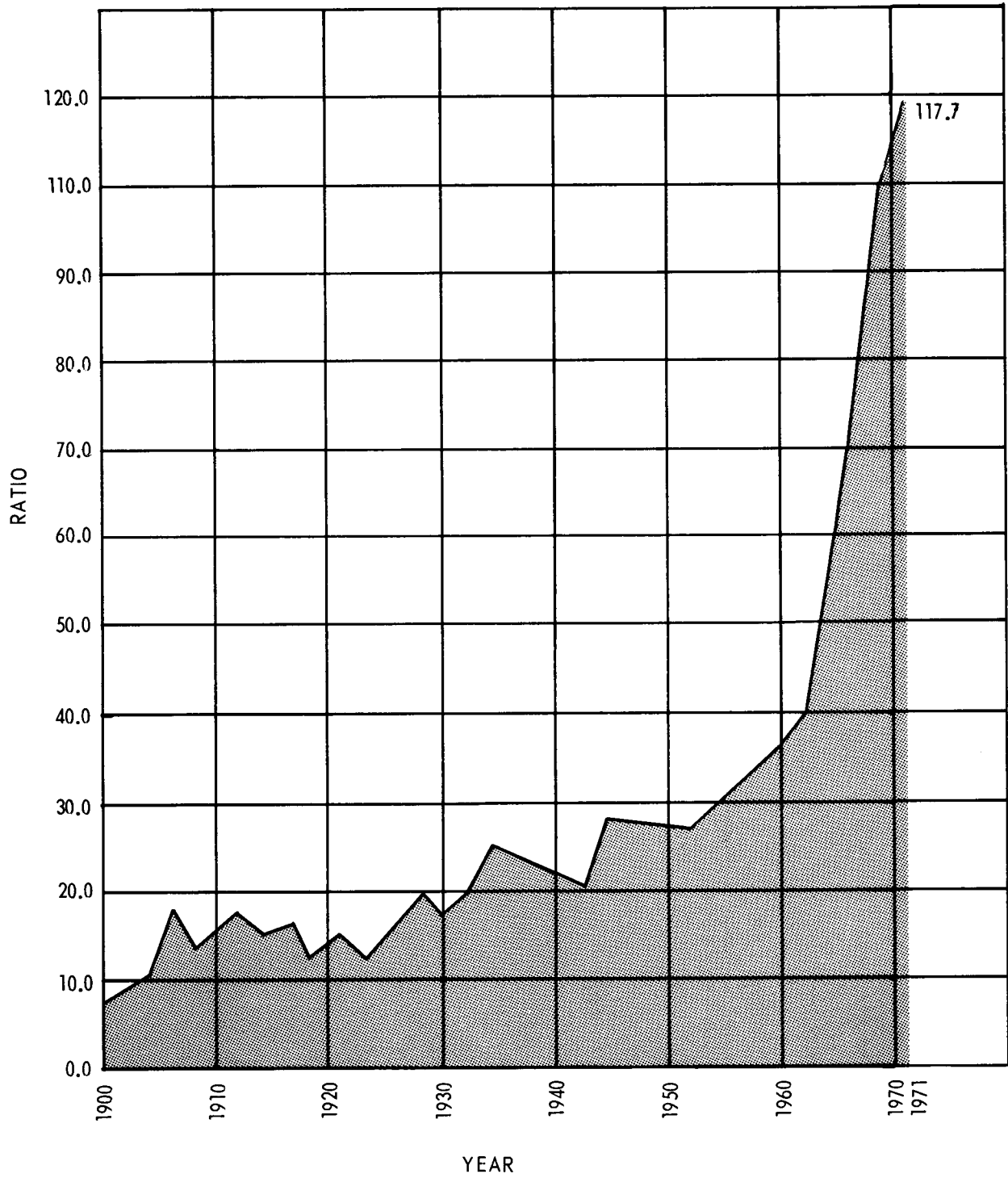
TABLE 1.4

Illegitimate Live Births and Ratio by Age of Mother and Race of Child  
Michigan Residents - 1971

AGE OF MOTHER	RACE OF CHILD					
	TOTAL		WHITE		NONWHITE	
	No.	Ratio	No.	Ratio	No.	Ratio
Under 15 Years	434	919.5	116	783.8	318	981.5
15 - 19 Years	9,842	345.6	4,247	208.2	5,595	691.9
20 - 24 Years	5,839	93.6	2,502	47.7	3,337	335.2
25 - 29 Years	1,771	40.6	725	19.1	1,046	186.7
30 - 39 Years	1,092	43.3	466	21.7	626	168.1
40 and Over Years	116	56.9	50	30.2	66	172.3
Not Stated	4	*	-	*	4	*
Total	19,098	117.7	8,106	60.4	10,992	391.5
Median Age of Mother	19		19		19	

\* Ratios not computed

FIG. 1.4  
ILLEGITIMATE BIRTH RATIO  
MICHIGAN RESIDENTS, 1900-1971



As can be observed from Table 1.5, illegitimate births are more likely to be low weight (13.4 percent of all illegitimate births compared to 6.9 percent of all legitimate births). Of all illegitimate births, 53.8 percent occurred to mothers of less than 20 years of age while the comparable percentage among legitimate births was only 13.0 percent. Although differences are small, complications of labor, pregnancy, and those not related to pregnancy occur more frequently among illegitimate births.

TABLE 1.5  
 Illegitimate Births by Selected Characteristics  
 Michigan Residents, 1971

SELECTED CHARACTERISTICS	TOTAL LIVE BIRTHS	% OF TOTAL	ILLEGITIMATE LIVE BIRTHS	% OF ILLEGITIMATE	LEGITIMATE LIVE BIRTHS	% OF LEGITIMATE
Low-Weight Birth (2500 grams or less)	12,497	7.7	2,567	13.4	9,930	6.9
Mother's Age <20 Years	28,952	17.8	10,276	53.8	18,676	13.0
Mother's Education - 8th Grade or <	6,006	3.7	1,301	6.8	4,705	3.3
Complications of Labor	19,665	12.1	2,480	13.0	17,185	12.0
Complications Related to Pregnancy	13,071	8.1	1,811	9.5	11,260	7.9
Complications Not Related to Pregnancy	<u>3,690</u>	<u>2.3</u>	<u>635</u>	<u>3.3</u>	<u>3,055</u>	<u>2.1</u>
Total	162,244	100.0	19,098	100.0	143,146	100.0

Similar increases in illegitimacy ratios have been noted nationwide. Table 1.6 contains a comparison of illegitimate birth ratios for Michigan and the United States for the period 1961-1971.

TABLE 1.6

Illegitimate Live Births and Illegitimacy Ratios  
Michigan and United States Residents, 1961-1971

UNITED STATES		YEAR	MICHIGAN	
NO. OF ILLEGITIMATE BIRTHS	RATIO		NO. OF ILLEGITIMATE BIRTHS	RATIO
240,200	56.3	1961	8,017	41.6
245,100	58.8	1962	7,998	43.8
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
N/A	N/A	1969	16,329	98.5
N/A	N/A	1970	18,712	109.0
N/A	N/A	1971	19,098	117.7

## BIRTH WEIGHT

The mean weight for all live births is 3,307 grams or approximately 7 lbs., 4 oz. The median weight is 3,331 grams or approximately 7 lbs., 5 oz. (Table 1.7). As was alluded to previously, birth weights among illegitimates are slightly lower. The median and mean birth weights for illegitimate births are respectively 3,149 grams (approximately 6 lbs., 15 oz.) and 3,090 grams (6 lbs., 12 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 now called low weight births.

TABLE 1.7  
Birth Weight by Legitimacy Status  
Michigan Residents, 1971

WEIGHT AT BIRTH	LEGITIMACY STATUS		
	TOTAL	LEGITIMATE	ILLEGITIMATE
500 Grams or Less	202	149	53
501-1000 Grams	716	564	152
1001-1500 Grams	1,081	816	265
1501-2000 Grams	2,494	2,000	494
2001-2500 Grams	8,004	6,401	1,603
2501-3000 Grams	28,690	23,867	4,823
3001-3500 Grams	60,266	53,072	7,194
3501-4000 Grams	44,600	41,012	3,588
4001-4500 Grams	13,175	12,402	773
4501 and Over	2,849	2,721	128
Not Stated	167	142	25
TOTAL	162,244	143,146	19,098
Mean Weight	3,307	3,336	3,090
Median Weight	3,331	3,355	3,149

The incidence of low weight births appears to be most significant among the young, the older, and the nonwhite mothers (Table 1.8).

TABLE 1.8

Low Weight Live Births and Rates  
By Age of Mother and Race of Child  
Michigan Residents, 1971

AGE OF MOTHER	RACE OF CHILD					
	TOTAL		WHITE		NONWHITE	
	NO.	RATE	NO.	RATE	NO.	RATE
Under 15 Years	76	161.0	21	141.9	55	169.8
15-19 Years	2,934	103.0	1,632	80.0	1,302	161.0
20-24	4,488	72.0	3,107	59.3	1,381	138.7
25-29	2,906	66.6	2,235	58.8	671	119.7
30-39	1,927	76.4	1,423	66.2	504	135.4
40 Years and Over	163	80.0	118	71.3	45	117.5
Not Stated	3	*	2	*	1	*
TOTAL	12,497	77.0	8,538	63.6	3,959	141.0
Median Age of Mother	23		24		22	

\* Rates not computed

## BIRTH ORDER

As can be observed from Table 1.9 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 a slight 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 20.6 percent in 1961 to 9.7 percent in 1971).

The relative increase in first-order births is not unique to Michigan. As can be observed from Table 1.10 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 (37.5 percent in 1968) than is the case for Michigan residents (32.8 percent in 1968).

As can be observed from Table 1.11, the frequency of high-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 31 among fifth-order or greater births. The median age of all mothers is 24.

TABLE 1.9  
Total Live Births by Live Birth Order  
Michigan Residents, 1961 and 1971

LIVE BIRTH ORDER	NO. OF BIRTHS		PERCENT	
	1961	1971	1961	1971
First Birth	45,656	60,413	23.7	37.2
Second Birth	42,976	45,839	22.3	28.3
Third Birth	37,661	26,365	19.5	16.3
Fourth Birth	26,777	13,799	13.9	8.5
Fifth Birth or Greater	39,684	15,723	20.6	9.7
Not Stated	71	105	0.0	0.1
TOTAL	192,825	162,244	100.0	100.0

TABLE 1.10

First Births  
Michigan and United States Residents, 1961-1971

UNITED STATES		YEAR	MICHIGAN	
FIRST BIRTHS	% OF ALL BIRTHS		FIRST BIRTHS	% OF ALL BIRTHS
1,099,688	25.8	1961	45,656	23.7
1,086,312	26.1	1962	43,426	23.8
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
N/A	N/A	1969	56,497	34.1
N/A	N/A	1970	64,222	37.4
N/A	N/A	1971	60,413	37.2



TABLE 1.11

Total Live Births by Live Birth Order and Age of Mother  
Michigan Residents, 1971

LIVE BIRTH ORDER	AGE OF MOTHER						TOTAL	MEDIAN AGE
	< 20 YEARS	20-24 YEARS	25-29 YEARS	30-39 YEARS	40 AND> YEARS	N/A		
First Birth	22,752	26,812	8,693	2,071	79	6	60,413	21
Second Birth	5,190	23,241	13,590	3,720	95	3	45,839	23
Third Birth	849	8,684	11,354	5,227	249	2	26,365	26
Fourth Birth	113	2,628	5,896	4,913	248	1	13,799	28
Fifth Birth or >	21	957	4,089	9,287	1,367	2	15,723	31
Not Stated	27	45	17	16	-	-	105	22
TOTAL	28,952	62,367	43,639	25,234	2,038	14	162,244	24

PRENATAL CARE

In 1971, 1,916 resident live births (1.2 percent) occurred without the mother having any prenatal care. These cases include only those where no prenatal care was specified. Those mothers receiving no prenatal care are for the most part younger (median age of 22) mothers. Also the lack of prenatal care is disproportionately high among nonwhites. The relative percentage of nonwhites receiving no prenatal care is three times as large as among whites (Table 1.12).

TABLE 1.12

Live Births with No Prenatal Care  
By Age of Mother and Race of Child  
Michigan Residents, 1971

AGE OF MOTHER	RACE OF CHILD					
	TOTAL		WHITE		NONWHITE	
	NO.	RATIO	NO.	RATIO	NO.	RATIO
Under 15 Years	25	53.0	10	67.6	15	46.3
15 - 19 Years	619	21.7	307	15.1	312	38.6
20 - 24 Years	672	10.8	388	7.4	284	28.5
25 - 29 Years	314	7.2	179	4.7	135	24.1
30 - 39 Years	253	10.0	174	8.1	79	21.2
40 Years and Over	32	15.7	26	15.7	6	15.7
Not Stated	1	*	1	*	-	*
TOTAL	1,916	11.8	1,085	8.1	831	29.6
Median Age of Mother	22		22		21	

\* Ratio not computed

## FETAL DEATHS

In 1971, there were 1,923 resident Michigan fetal deaths. This is the lowest resident fetal death figure recorded since 1905. The 1971 crude fetal death ratio for Michigan was 11.9. This is the lowest level for this ratio in this century (Table 1.13).

TABLE 1.13  
Fetal Deaths and Fetal Death Ratios  
Michigan Residents, 1900-1971

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

Further inspection of Figure 1.3 (page 12) 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 1.14.

TABLE 1.14  
Fetal Deaths  
By Cause of Death (Underlying) and Cause-Specific Ratios  
Michigan Residents, 1971

ICDA LIST NO.	CAUSE OF DEATH	FREQUENCY	RATIO*
740	Anencephalus	42	25.9
741	Spina Bifida	5	3.1
742	Congenital Hydrocephalus	30	18.5
743	Other Congenital Anomalies of Nervous System	1	0.6
745	Congenital Anomalies of Ear, Face, and Neck	2	1.2
746	Congenital Anomalies of Heart	9	5.5
747	Other Congenital Anomalies of Circulatory System	1	0.6
748	Congenital Anomalies of Respiratory System	2	1.2
749	Cleft Palate and Cleft Lip	1	0.6
750	Other Congenital Anomalies of Upper Alimentary Tract	1	0.6
751	Other Congenital Anomalies of Digestive System	1	0.6
753	Congenital Anomalies of Urinary System	4	2.5
755	Other Congenital Anomalies of Limbs	2	1.2
756	Other Congenital Anomalies of Musculoskeletal System	3	1.8
758	Other and Unspecified Congenital Anomalies	8	4.9
759	Congenital Syndromes Affecting Multiple Systems	19	11.7
760	Chronic Circulatory and Genito-Urinary Diseases in Mother	21	12.9
761	Other Maternal Conditions Unrelated to Pregnancy	121	74.6
762	Toxemia of Pregnancy	76	46.8
763	Maternal Ante- and Intra-Partum Infection	52	32.1
764	Difficult Labor with Abnormality of Bones, Organs, and Tissues of Pelvis	1	0.6
765	Difficult Labor with Disproportion but no Mention of Abnormality of Pelvis	8	4.9
766	Difficult Labor with Malposition of Fetus	29	17.9
767	Difficult Labor with Abnormality of Forces of Labor	3	1.8
768	Difficult Labor with Other and Unspecified Complications	12	7.4
769	Other Complications of Pregnancy and Childbirth	172	106.0
770	Conditions of Placenta	418	257.6
771	Conditions of Umbilical Cord	291	179.4
772	Birth Injury without Mention of Cause	8	4.9
775	Hemolytic Disease of Newborn without Mention of Kernicterus	80	49.3
776	Anoxic and Hypoxic Conditions not Elsewhere Classifiable	112	69.0
777	Immaturity, Unqualified	110	67.8
778	Other Conditions of Fetus or Newborn	24	14.8
779	Fetal Death of Unknown Cause	254	156.6

\* Ratios per 100,000 Resident Live Births

Due to a relatively large number of deaths allocated to unspecific causes (e.g., 254 deaths were assigned to unknown causes in 1971) the reader should exercise caution in attempting to draw specific inferences regarding cause of death among fetal deaths.

Of 1,923 resident fetal deaths, only 131 or approximately 7 percent were reported as due to congenital malformations, 270 or approximately 14 percent were due to conditions attributable to the mother, and 225 (12 percent) were reported as due to problems with the pregnancy or delivery. Conditions of the placenta and conditions of the umbilical cord accounted for 709 or 37 percent of all fetal deaths. Immaturity (unqualified), other conditions of the fetus, and deaths from unknown causes accounted for 388 or approximately 20 percent of all fetal deaths.

It appears that the young, the older, and the nonwhite 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 1.15 and 1.16).

TABLE 1.15

Fetal Deaths by Age of Mother and Race of Fetus  
Michigan Residents, 1971

AGE GROUP	RACE OF FETUS							
	TOTAL	%	WHITE	%	BLACK	%	OTHER	%
Under 15	18	0.9	3	0.2	14	2.9	1	1.8
15 - 19	342	17.8	204	14.8	129	26.3	9	15.8
20 - 24	608	31.6	447	32.5	151	30.8	10	17.5
25 - 29	465	24.2	359	26.1	86	17.6	20	35.1
30 - 34	265	13.8	210	15.3	50	10.2	5	8.8
35 - 39	156	8.1	109	7.9	42	8.6	5	8.8
40 - 44	53	2.8	35	2.5	15	3.1	3	5.3
45 and Over	6	0.3	5	0.4	1	0.2	-	-
Not Stated	10	0.5	4	0.3	2	0.4	4	7.0
TOTAL	1,923	100.0	1,376	100.0	490	100.1	57	100.1
Median Age	24		25		23		*	

\* Not computed due to limited number of occurrences

TABLE 1.16

Fetal Death Ratios  
By Age of Mother and Race of Fetus  
Michigan Residents, 1971

AGE OF MOTHER AND RACE OF FETUS	FETAL DEATHS	LIVE BIRTHS	AGE-RACE SPECIFIC RATIOS PER 1,000 LIVE BIRTHS
Under 15 Years	18	472	38.1
White	3	148	20.3
Nonwhite	15	324	46.3
15-19 Years	342	28,480	12.0
White	204	20,394	10.0
Nonwhite	138	8,086	17.1
20-24 Years	608	62,367	9.7
White	447	52,413	8.5
Nonwhite	161	9,954	16.2
25-29 Years	465	43,639	10.7
White	359	38,035	9.4
Nonwhite	106	5,604	18.9
30-39 Years	421	25,234	16.7
White	319	21,511	14.8
Nonwhite	102	3,723	27.4
40 and Over	59	2,038	28.9
White	40	1,655	24.2
Nonwhite	19	383	49.6
Not Stated	10	14	-
White	4	9	-
Nonwhite	6	5	-
TOTAL	1,923	162,244	11.9
White	1,376	134,165	16.3
Nonwhite	547	28,079	19.5

Among live births, the percentage of children weighing 5 lbs., 8 oz. or less at births was 7.8 percent. The comparable percentage among fetal deaths was 56.2 percent. The distribution of birth weight by plurality is presented in Table 1.17.

TABLE 1.17  
Fetal Deaths by Fetal Weight and Plurality  
Michigan Residents, 1971

WEIGHT	TOTAL FETALS	CUM. %	SINGLE DELIVERY	TWIN DELIVERY	TRIPLET DELIVERY
500 Grams or Less	146	7.6	124	21	1
501-1,000 Grams	343	25.4	324	19	-
1,001-1,500 Grams	198	35.7	181	17	-
1,501-2,000 Grams	183	45.2	171	12	-
2,001-2,500 Grams	210	56.2	199	11	-
2,501-3,000 Grams	170	65.0	165	5	-
3,001-3,500 Grams	167	73.7	166	1	-
3,501-4,000 Grams	120	79.9	118	2	-
4,001-4,500 Grams	35	81.7	35	-	-
4,501-5,000 Grams	24	83.0	24	-	-
5,001 and Over Grams	25	84.3	25	-	-
Not Stated	302		285	17	-
TOTAL	1,923	100.0	1,817	105	1

Illegitimate fetal deaths comprised 18.1 percent of all fetal deaths. Illegitimate ratios are particularly high among the young and the non-white. Table 1.18 presents illegitimacy ratios for fetal deaths and Table 1.19 contains a comparison of age-specific fetal mortality ratios by legitimacy status.

TABLE 1.18

Illegitimate Fetal Deaths and Ratios\*  
By Age of Mother and Race of Fetus  
Michigan Residents, 1971

AGE GROUP	TOTAL	RATIO	WHITE	RATIO	BLACK	RATIO	OTHER	RATIO
Under 15	17	944.4	3	1000.0	14	1000.0	-	-
15-19	159	464.9	59	289.2	98	759.7	2	222.2
20-24	100	164.5	40	89.5	57	377.5	3	300.0
25-29	33	71.0	11	30.6	20	232.6	2	100.0
30-34	25	94.3	11	52.4	14	280.0	-	-
35-39	10	64.1	6	55.0	3	71.4	1	200.0
40-44	3	56.6	2	57.1	1	66.7	-	-
45 and Over	-	-	-	-	-	-	-	-
Not Stated	1	0.0	-	-	1	0.0	-	-
TOTAL	348	181.0	132	95.9	208	424.5	8	140.4

\* Ratio computed as = (No. of illegitimate Fetal Deaths/Total Fetal Deaths) x 1,000.



TABLE 1.19

Fetal Deaths and Live Births  
By Age of Mother and Legitimacy Status  
Michigan Residents, 1971

AGE OF MOTHER AND LEGITIMACY STATUS	FETAL DEATHS	LIVE BIRTHS	AGE SPECIFIC RATIO PER 1,000 LIVE BIRTHS
Under 15 Years	18	472	38.1
Legitimate	1	38	26.3
Illegitimate	17	434	39.2
15-19 Years	342	28,480	12.0
Legitimate	183	18,638	9.8
Illegitimate	159	9,842	16.2
20-24 Years	608	62,367	9.7
Legitimate	508	56,528	9.0
Illegitimate	100	5,839	17.1
25-29 Years	465	43,639	10.7
Legitimate	432	41,868	10.3
Illegitimate	33	1,771	18.6
30-39 Years	421	25,234	16.7
Legitimate	386	24,142	16.0
Illegitimate	35	1,092	32.1
40 and Over	59	2,038	28.9
Legitimate	56	1,922	29.1
Illegitimate	3	116	25.9
Not Stated	10	14	-
Legitimate	9	10	-
Illegitimate	1	4	-
TOTAL	1,923	162,244	11.9
Legitimate	1,575	143,146	11.0
Illegitimate	348	19,098	18.2

Of the 1,923 fetal deaths recorded for 1971, 470 or 24.4 percent of the mothers reported no prenatal visits or did not state the number of prenatal visits.

The month of pregnancy that prenatal care is started among women having stillbirths is most frequently the second month (Table 1.20). Of those reporting, a relatively large percentage (70 percent) had received care before the 6th month of pregnancy.

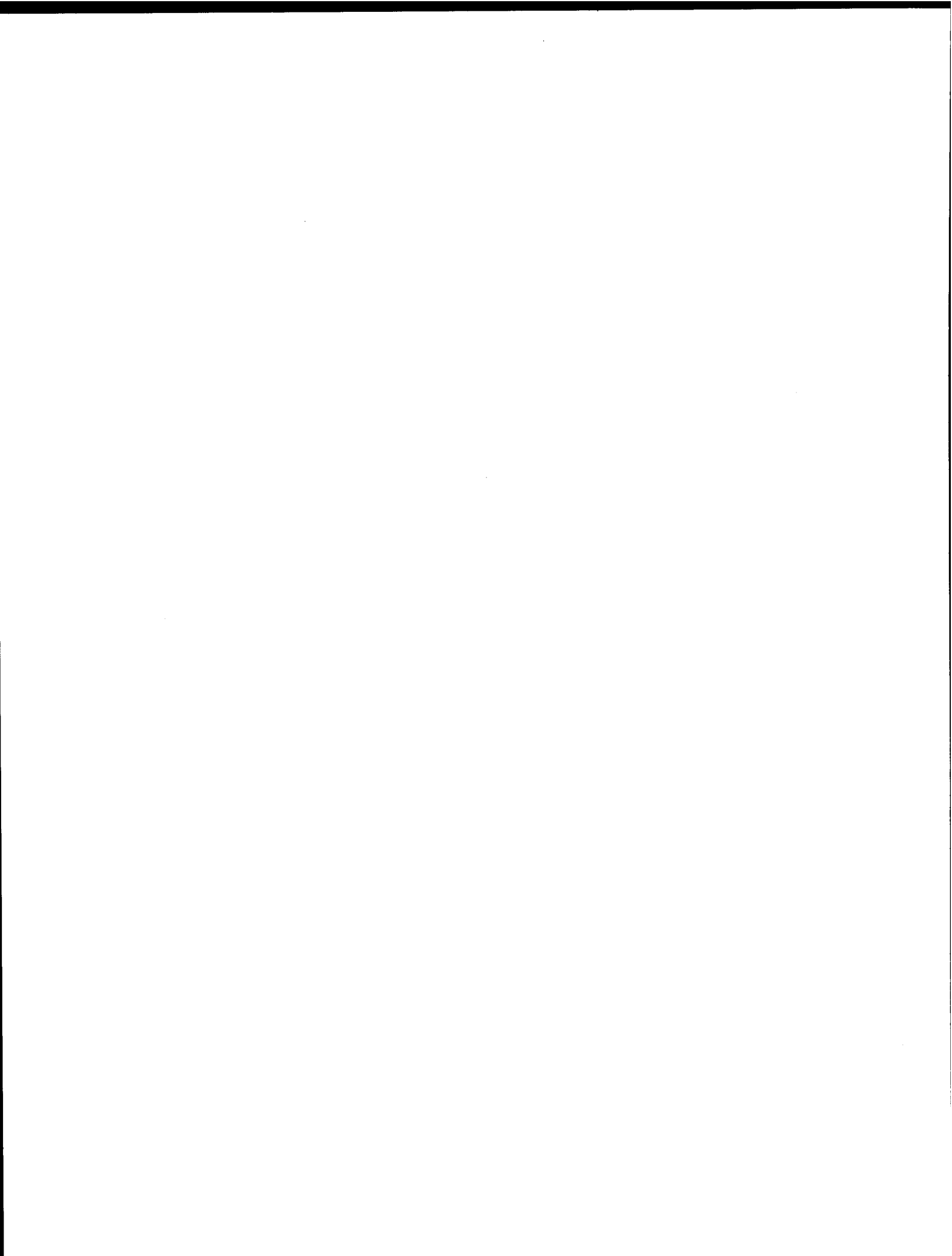
TABLE 1.20  
 Month Prenatal Care Began  
 By Number of Prenatal Visits  
 Michigan Resident Stillbirths, 1971

MONTH CARE BEGAN	NUMBER OF VISITS							NOT STATED
	TOTAL	NONE	UNDER 5	5-9	10-14	15-19	20 AND OVER	
No Care	202	196	4	-	-	-	-	2
1st Month	154	4	16	49	47	20	8	10
2nd Month	459	9	60	168	167	34	11	10
3rd Month	416	12	65	150	153	21	7	8
4th Month	219	10	66	84	44	10	1	4
5th Month	107	-	44	44	12	2	1	4
6th Month	73	3	32	25	9	-	-	4
7th Month	39	-	22	11	5	-	-	1
8th Month	24	1	17	4	1	-	1	-
9th Month	-	-	-	-	-	-	-	-
Unknown	230	14	15	12	7	2	2	178
TOTAL	1,923	249	341	547	445	89	31	221



SECTION II  
MORTALITY  
AN OVERVIEW

Total Resident Deaths - 1971	- 77,395
Crude Death Rate	- 8.6
Total Infant Deaths - 1971	- 3,157
Infant Death Rate	- 19.4
Total Neonatal Deaths - 1971	- 2,412
Neonatal Death Rate	- 14.9
Total Perinatal Deaths - 1971	- 4,139
Perinatal Death Rate	- 25.2
Median Age at Death - 1971	- 69
Deaths from Heart Disease - 1971	- 30,095
Deaths from Cancer - 1971	- 13,594
Deaths from Stroke - 1971	- 7,826
Deaths from Accidents - 1971	- 4,426



## HISTORICAL PERSPECTIVE

From 1900 to 1971 the number of deaths occurring to Michigan residents increased from 32,453 to 77,395. The 31,472 deaths recorded in 1902 was the lowest number of resident deaths in this century, while the greatest number was recorded in 1971 when total resident deaths numbered 77,395. Although the total number of deaths increased between 1900 and 1971, the crude death rate decreased. The crude death rate in 1900 was 13.4 while the rate in 1971 was 8.6. 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 1971 heart, cancer, and stroke deaths numbered 30,095, 13,594, and 7,826 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 1971 are 334.5, 151.1 and 87.0.

## MORTALITY RATES

In 1971, 77,395 deaths were recorded as having occurred to residents of Michigan. The crude death rate for 1971 was 8.6. There has been no significant change in 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 1961 - 1971 is presented in Table 2.1.

The static 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 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 77,395 resident deaths that occurred in 1971, 44,399 occurred to males and 32,996 occurred to females. The median age at death for males was 67 compared to a significantly higher figure for females of 73. White deaths numbered 67,847 and accounted for 88 percent of all deaths. Negro deaths numbered 9,259 while 289 deaths occurred to members of all other races (Table 2.2).

FIG. 2.1  
CRUDE DEATH RATE  
MICHIGAN RESIDENTS, 1900-1971

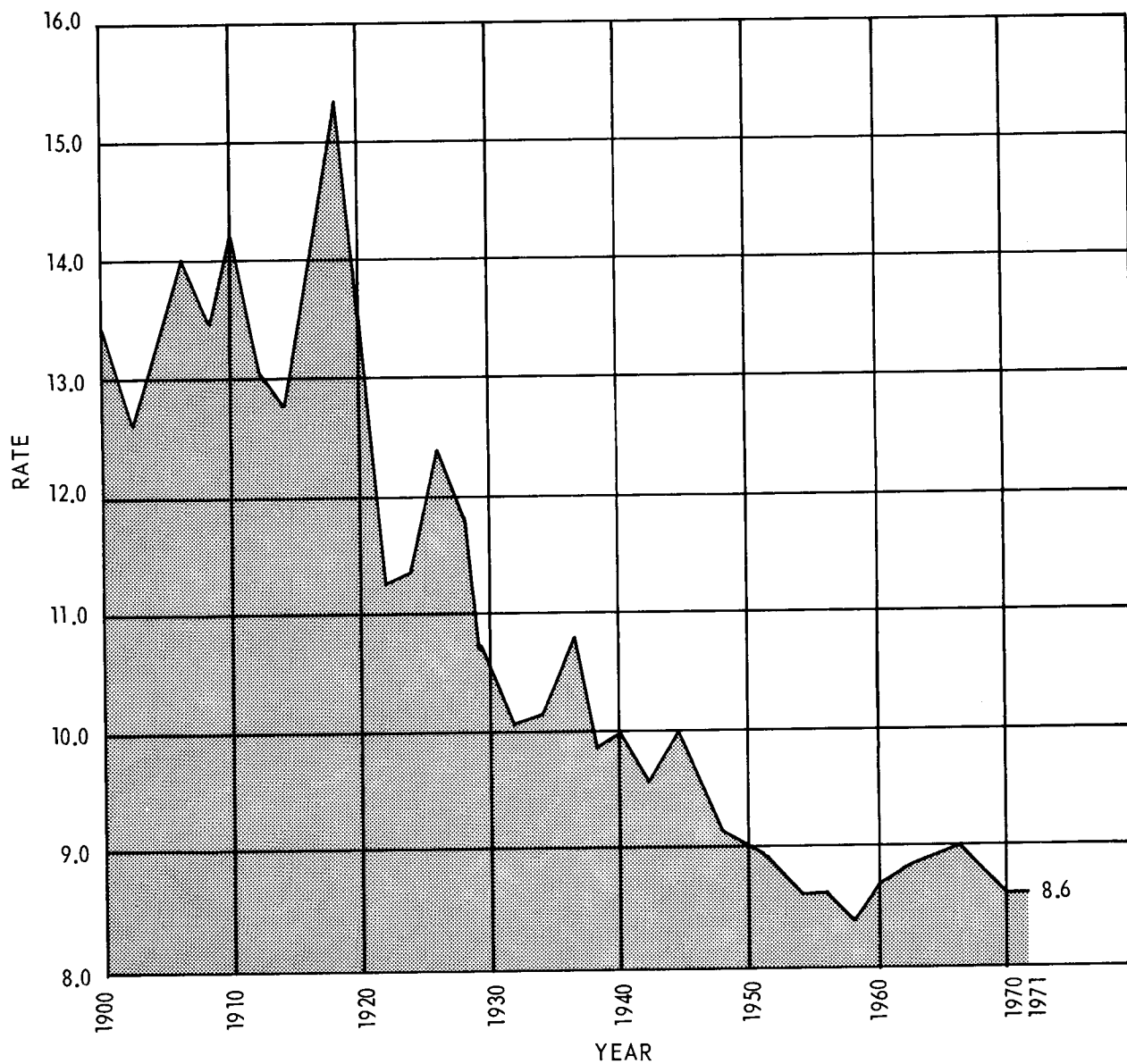




TABLE 2.1

Number of Deaths and Crude Death Rates  
Michigan and United States Residents, 1961-1971

UNITED STATES		YEAR	MICHIGAN	
NO.	RATE		NO.	RATE
1,701,522	9.3	1961	67,375	8.5
1,756,720	9.5	1962	70,049	8.8
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
1,916,000 Prov.	9.5 Prov.	1969	76,693	8.8
1,921,000 Prov.	9.4 Prov.	1970	76,321	8.6
1,921,000 Prov.	9.3 Prov.	1971	77,395	8.6

TABLE 2.2

Number of Deaths by Age, Race and Sex  
Michigan Residents, 1971

AGE	TOTAL			WHITE			BLACK			OTHER		
	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE
Under 1 Year	3,157	1,839	1,318	2,294	1,362	932	843	466	377	20	11	9
1-4 Years	515	265	250	408	214	194	102	49	53	5	2	3
5-9 Years	362	205	157	307	174	133	53	30	23	2	1	1
10-14 Years	377	222	155	319	190	129	54	30	24	4	2	2
15-19 Years	981	709	272	771	549	222	200	150	50	10	10	-
20-24 Years	1,190	888	302	848	622	226	337	263	74	5	3	2
25-29 Years	930	656	274	613	417	196	310	233	77	7	6	1
30-34 Years	809	529	280	551	357	194	254	171	83	4	1	3
35-39 Years	1,096	690	406	758	465	293	333	222	111	5	3	2
40-44 Years	1,849	1,158	691	1,396	878	518	446	275	171	7	5	2
45-49 Years	3,017	1,887	1,130	2,380	1,493	887	622	389	233	15	5	10
50-54 Years	4,124	2,614	1,510	3,384	2,177	1,207	723	428	295	17	9	8
55-59 Years	5,526	3,644	1,882	4,699	3,136	1,563	798	487	311	29	21	8
60-64 Years	6,988	4,502	2,486	6,056	3,952	2,104	902	530	372	30	20	10
65-69 Years	7,965	5,047	2,918	7,034	4,484	2,550	905	544	361	26	19	7
70-74 Years	9,182	5,431	3,751	8,245	4,899	3,346	900	508	392	37	24	13
75-79 Years	10,488	5,708	4,780	9,834	5,371	4,463	629	324	305	25	13	12
80-84 Years	9,297	4,563	4,734	8,858	4,344	4,514	420	208	212	19	11	8
85-89 Years	6,162	2,638	3,524	5,901	2,521	3,380	250	115	135	11	2	9
90 and Over	3,375	1,200	2,175	3,190	1,135	2,055	177	58	119	8	7	1
Not Stated	5	4	1	1	1	-	1	1	-	3	2	1
Total	77,395	44,399	32,996	67,847	38,741	29,106	9,259	5,481	3,778	289	177	112
Median Age	69	67	73	71	68	74	57	55	60	62	62	62

## LEADING CAUSES OF DEATH

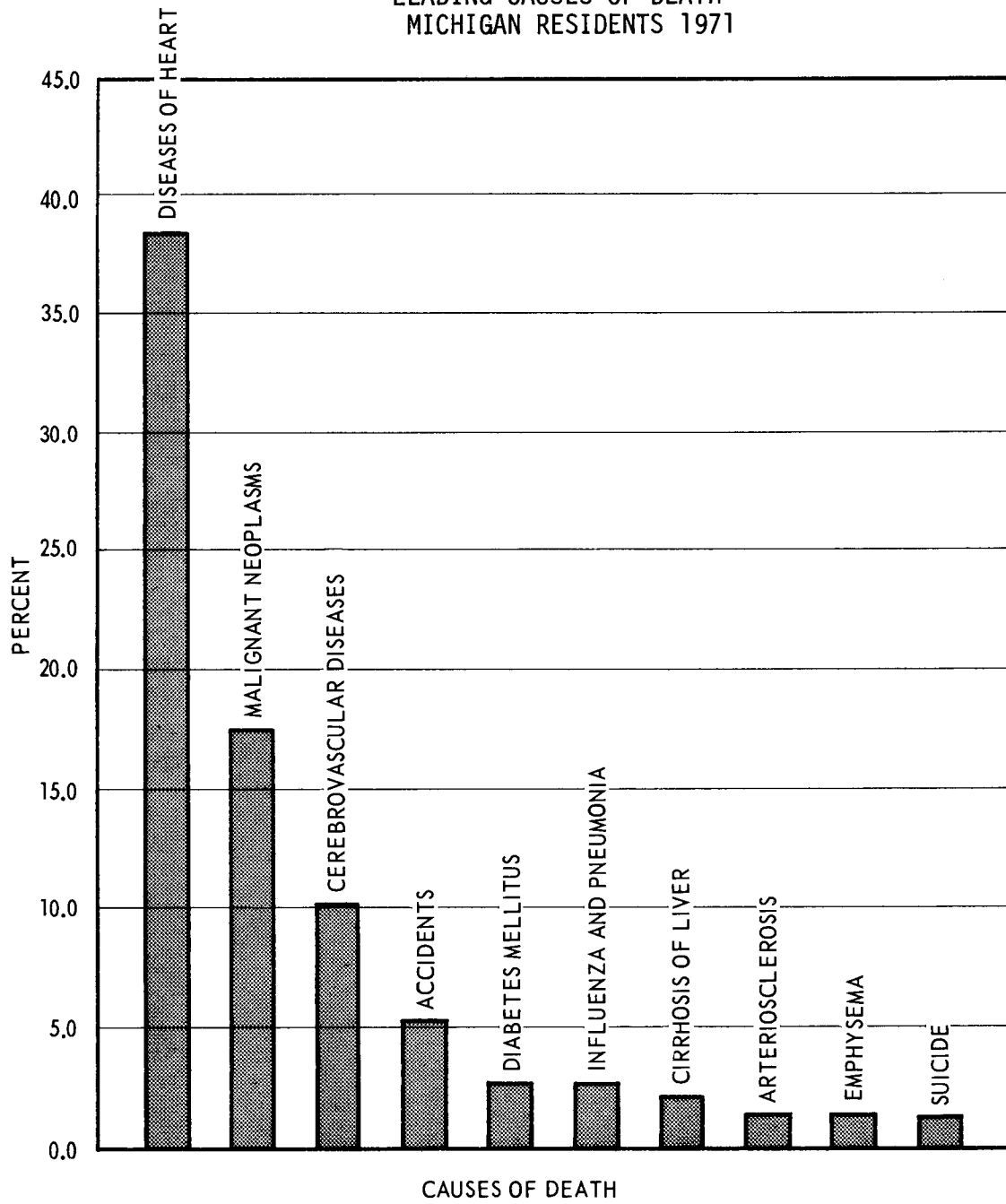
The principal causes of death in Michigan in 1971 remained much the same as they have in the recent past. The ten leading causes of death and cause-specific rates per 100,000 population are displayed in Table 2.3 and Figure 2.2\*.

TABLE 2.3  
Leading Causes of Death and Cause-Specific Rates  
Michigan and United States Residents, 1971

RANK	CAUSE OF DEATH	NUMBER OF DEATHS		RATE	
		MICHIGAN	U.S. Prov.	MICHIGAN	U.S. Prov.
1	Diseases of Heart	30,095	741,010	334.5	358.4
2	Malignant Neoplasms	13,594	332,730	151.1	160.9
3	Cerebrovascular Diseases	7,826	207,920	87.0	100.6
4	Accidents	4,426	111,150	49.2	53.8
5	Diabetes Mellitus	2,103	37,650	23.4	18.2
6	Influenza and Pneumonia	2,058	56,310	22.9	27.2
7	Cirrhosis of Liver	1,657	32,100	18.4	15.5
8	Arteriosclerosis	1,187	31,990	13.2	15.5
9	Emphysema	1,148	22,420	12.8	10.8
10	Suicide	1,119	22,980	12.4	11.1
	Sub Total	65,213	1,596,260	724.9	771.1
	All Other Causes	12,182	324,740	135.4	156.9
	TOTAL	77,395	1,921,000	860.3	928.0

\* A detailed tabulation of deaths by specific conditions for 1971 is included in Section 4. Also included in Section 4 is a tabulation by County of Residence of selected causes of death.

FIG. 2.2  
LEADING CAUSES OF DEATH  
MICHIGAN RESIDENTS 1971



## DISEASES OF THE HEART

In 1971, 30,095 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 three largest causes combined (cancer, stroke and accidents). By far the most prevalent condition in this group is an acute myocardial infarction (15,654 deaths in 1971) commonly referred to as a "coronary" (Table 2.4).

TABLE 2.4

Deaths Due to Diseases of the Heart by Detailed Causes  
Michigan Residents, 1971

ICDA LIST NO.	CAUSE OF DEATH	NUMBER OF DEATHS	PERCENT
390	Rheumatic fever without mention of heart involvement	2	.0066
391	Rheumatic fever with heart involvement	8	.0266
392	Chorea	-	-
393	Diseases of pericardium	2	.0066
394	Diseases of mitral valve	162	.5383
395	Diseases of aortic valve	164	.5449
396	Diseases of mitral and aortic valve	66	.2193
397	Diseases of other endocardial structures	35	.1163
398	Other heart disease specified as rheumatic	225	.7476
402	Hypertensive heart disease	422	1.4022
404	Hypertensive heart and renal disease	162	.5383
410	Acute myocardial infarction	15,654	52.0153
411	Other acute and subacute forms of ischemic heart disease	98	.3256
412	Chronic ischemic heart disease	11,857	39.3986
413	Angina pectoris	9	.0299
420	Acute pericarditis, non-rheumatic	1	.0033
421	Acute and subacute endocarditis	19	.0631
422	Acute myocarditis	9	.0299
423	Chronic disease of pericardium, non-rheumatic	12	.0399
424	Chronic disease of endocardium	35	.1163
425	Cardiomyopathy	84	.2791
426	Pulmonary heart disease	17	.0565
427	Symptomatic heart disease	822	2.7314
428	Other myocardial insufficiency	97	.3223
429	Ill-defined heart disease	133	.4419
	TOTAL	30,095	99.9998

Of the 30,095 deaths due to diseases of the heart in 1971, 17,631 were males and 12,464 were females. The median age at death for males was 70 compared to a figure of 77 for females. The median age at death for all heart disease deaths was 74 (Table 2.5).

TABLE 2.5

Deaths Due to Diseases of the Heart by Age, by Race and Sex  
Michigan Residents, 1971

AGE GROUP	TOTAL			WHITE			BLACK			OTHER		
	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE
Under 1 Year	7	4	3	3	2	1	4	2	2	-	-	-
1-4 Years	4	3	1	3	3	-	1	-	1	-	-	-
5-9 Years	1	-	1	-	-	-	-	-	-	1	-	1
10-14 Years	5	3	2	3	2	1	2	1	1	-	-	-
15-19 Years	13	7	6	9	4	5	4	3	1	-	-	-
20-24 Years	33	20	13	23	13	10	10	7	3	-	-	-
25-29 Years	40	26	14	24	14	10	16	12	4	-	-	-
30-34 Years	82	63	19	58	48	10	22	14	8	2	1	1
35-39 Years	181	139	42	126	99	27	55	40	15	-	-	-
40-44 Years	411	317	94	327	265	62	83	51	32	1	1	-
45-49 Years	939	709	230	767	595	172	170	113	57	2	1	1
50-54 Years	1,425	1,101	324	1,200	967	233	221	132	89	4	2	2
55-59 Years	2,108	1,552	556	1,853	1,400	453	240	138	102	15	14	1
60-64 Years	2,967	2,067	900	2,592	1,847	745	362	212	150	13	8	5
65-69 Years	3,509	2,366	1,143	3,141	2,151	990	357	205	152	11	10	1
70-74 Years	4,159	2,531	1,628	3,767	2,312	1,455	376	210	166	16	9	7
75-79 Years	4,884	2,675	2,209	4,612	2,537	2,075	262	133	129	10	5	5
80-84 Years	4,507	2,170	2,337	4,311	2,080	2,231	188	86	102	8	4	4
85-89 Years	3,075	1,275	1,800	2,954	1,228	1,726	116	47	69	5	-	5
90 and Over	1,745	603	1,142	1,662	576	1,086	81	25	56	2	2	-
Not Stated	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	30,095	17,631	12,464	27,435	16,143	11,292	2,570	1,431	1,139	90	57	33
Median Age at Death	74	70	77	74	71	78	66	64	68	68	65	73

## CANCER

Of 77,395 Michigan resident deaths, 13,594 persons died from cancer in 1971. Although certainly not the leading cause of death in Michigan and the United States, cancer affects all of the human body's major systems and persons of all ages (Table 2.6).



TABLE 2.6

Malignant Neoplasms by Site Affected  
Michigan Residents, 1971

ICDA LIST NO.	CAUSE AND SITE	NUMBER OF DEATHS	PERCENT
140	Malignant Neoplasm of Lip	7	0.1
141	Malignant Neoplasm of Tongue	72	0.5
142	Malignant Neoplasm of Salivary Gland	21	0.2
143	Malignant Neoplasm of Gum	5	0.0
144	Malignant Neoplasm of Floor of Mouth	28	0.2
145	Malignant Neoplasm of Other and Unspecified Parts of the Mouth	42	0.3
146	Malignant Neoplasm of Oropharynx	39	0.3
147	Malignant Neoplasm of Nasopharynx	17	0.1
148	Malignant Neoplasm of Hypopharynx	19	0.1
149	Malignant Neoplasm of Pharynx, Unspecified	58	0.4
150	Malignant Neoplasm of Esophagus	257	1.9
151	Malignant Neoplasm of Stomach	670	4.9
152	Malignant Neoplasm of Small Intestine, Including Duodenum	29	0.2
153	Malignant Neoplasm of Large Intestine, Except Rectum	1,390	10.2
154	Malignant Neoplasm of Rectum and Rectosigmoid Junction	384	2.8
155	Malignant Neoplasm of Liver and Intrahepatic Bile Ducts, Specified as Primary	87	0.6
156	Malignant Neoplasm of Gall Bladder and Bile Ducts	179	1.3
157	Malignant Neoplasm of Pancreas	670	4.9
158	Malignant Neoplasm of Peritoneum and Retroperitoneal Tissue	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	27	0.2
161	Malignant Neoplasm of Larynx	120	0.9
162	Malignant Neoplasm of Trachea, Bronchus and Lung	2,737	20.1
163	Malignant Neoplasm of Other and Unspecified Respiratory Organs	31	0.2
170	Malignant Neoplasm of Bone	83	0.6
171	Malignant Neoplasm of Connective and Other Soft Tissue	68	0.5
172	Malignant Melanoma of Skin	103	0.8
173	Other Malignant Neoplasm of Skin	52	0.4
174	Malignant Neoplasm of Breast	1,174	8.6
180	Malignant Neoplasm of Cervix Uteri	269	2.0
181	Chorionepithelioma	2	0.0
182	Other Malignant Neoplasm of Uterus	221	1.6
183	Malignant Neoplasm of Ovary, Fallopian Tube and Broad Ligament	422	3.1
184	Malignant Neoplasm of Other and Unspecified Female Genital Organs	38	0.3
185	Malignant Neoplasm of Prostate	706	5.2
186	Malignant Neoplasm of Testis	38	0.3
187	Malignant Neoplasm of Other and Unspecified Male Genital Organs	9	0.1
188	Malignant Neoplasm of Bladder	361	2.7
189	Malignant Neoplasm of Other and Unspecified Urinary Organs	286	2.1
190	Malignant Neoplasm of Eye	12	0.1
191	Malignant Neoplasm of Brain	321	2.4
192	Malignant Neoplasm of Other Parts of Nervous System	38	0.3
193	Malignant Neoplasm of Thyroid Gland	44	0.3
194	Malignant Neoplasm of Other Endocrine Glands	24	0.2
195	Malignant Neoplasm of Ill-Defined Sites	117	0.9
196	Secondary and Unspecified Malignant Neoplasm of Lymph Nodes	5	0.0
197	Secondary Malignant Neoplasm of Respiratory and Digestive Systems	206	1.5
198	Other Secondary Malignant Neoplasm	60	0.4
199	Malignant Neoplasm without Specification of Site	535	3.9
200	Lymphosarcoma and Reticulum-Cell Sarcoma	335	2.5
201	Hodgkin's Disease	149	1.1
202	Other Neoplasms of Lymphoid Tissue	130	1.0
203	Multiple Myeloma	186	1.4
204	Lymphatic Leukemia	169	1.2
205	Myeloid Leukemia	250	1.8
206	Monocytic Leukemia	31	0.2
207	Other and Unspecified Leukemia	152	1.1
208	Polycythemia Vera	20	0.1
209	Myelofibrosis	41	0.3
	TOTAL	13,594	100.0

Of the 13,594 cancer deaths in 1971 occurring to Michigan residents, 7,528 were males while 6,066 occurred to females. The median age at death among males and females was 66 (Table 2.7).

TABLE 2.7

Deaths Due to Cancer by Age, by Race and Sex  
Michigan Residents, 1971

AGES	TOTAL			WHITE			BLACK			OTHER		
	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE
Under 1 Year	11	6	5	9	5	4	2	1	1	-	-	-
1-4 Years	48	25	23	40	22	18	8	3	5	-	-	-
5-9 Years	56	31	25	51	30	21	5	1	4	-	-	-
10-14 Years	53	29	24	48	27	21	4	2	2	1	-	1
15 - 19 Years	73	50	23	63	42	21	10	8	2	-	-	-
20-24 Years	72	46	26	63	43	20	9	3	6	-	-	-
25-29 Years	75	44	31	64	37	27	11	7	4	-	-	-
30-34 Years	98	38	60	86	35	51	11	8	4	1	-	1
35-39 Years	169	74	95	141	65	76	27	9	18	1	-	1
40-44 Years	389	168	221	334	145	189	54	22	32	1	1	-
45-49 Years	765	365	400	643	300	343	121	65	56	1	-	1
50-54 Years	1,047	520	527	883	434	449	160	84	76	4	2	2
55-59 Years	1,534	906	628	1,306	757	549	227	148	79	1	1	-
60-64 Years	1,799	1,037	762	1,592	906	686	201	128	73	6	3	3
65-69 Years	1,800	1,078	722	1,601	947	654	196	130	66	3	1	2
70-74 Years	1,876	1,084	792	1,705	983	722	162	96	66	9	5	4
75-79 Years	1,771	1,032	739	1,652	963	689	113	66	47	6	3	3
80-84 Years	1,176	628	548	1,110	585	525	64	41	23	2	2	-
85-89 Years	573	275	298	543	261	282	28	13	15	2	1	1
90 and Over	209	92	117	195	84	111	13	7	6	1	1	-
Not Stated	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	13,594	7,528	6,066	12,129	6,671	5,458	1,426	837	589	39	20	19
Median Age at Death	66	66	66	67	67	66	61	62	60	*	*	*

\* Not computed due to limited number of occurrences

CEREBROVASCULAR DISEASES

Deaths due to cerebrovascular diseases (stroke) accounted for 7,826 (10.1 percent) deaths among Michigan residents in 1971. Stroke is the third leading cause of death.

TABLE 2.8  
Deaths Due to Cerebrovascular Diseases  
Michigan Residents, 1971

ICDA LIST NO.	CAUSE OF DEATH	NUMBER OF DEATHS	PERCENT
430	Subarachnoid Hemorrhage	434	5.5
431	Cerebral Hemorrhage	1,434	18.3
432	Cerebral Occlusion	138	1.8
433	Cerebral Thrombosis	2,485	31.8
434	Cerebral Embolism	26	0.3
435	Transient Cerebral Ischemia	1	0.0
436	Acute but Ill-defined Cerebrovascular Disease	2,277	29.1
437	Generalized Ischemic Cerebrovascular Disease	964	12.3
438	Other and Ill-defined Cerebrovascular Disease	67	0.9
	TOTAL	7,826	100.0

Of the 7,826 deaths due to cerebrovascular diseases in 1971, 3,732 were males while 4,094 were females. The median age at death for males was 75 while the median age among females was significantly higher (78). The median age for all deaths from cerebrovascular diseases was 77 (Table 2.9).

TABLE 2.9

Deaths Due to Cerebrovascular Diseases by Age, by Race and Sex  
Michigan Residents, 1971

AGES	TOTAL			WHITE			BLACK			OTHER		
	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE
Under 1 Year	10	6	4	7	4	3	2	1	1	1	1	-
1-4 Years	8	5	3	7	4	3	1	1	-	-	-	-
5-9 Years	7	-	7	7	-	7	-	-	-	-	-	-
10-14 Years	6	4	2	5	3	2	1	1	-	-	-	-
15-19 Years	10	6	4	10	6	4	-	-	-	-	-	-
20-24 Years	15	8	7	10	7	3	5	1	4	-	-	-
25-29 Years	19	7	12	14	5	9	5	2	3	-	-	-
30-34 Years	37	19	18	27	15	12	10	4	6	-	-	-
35-39 Years	46	19	27	32	16	16	14	3	11	-	-	-
40-44 Years	99	51	48	67	31	36	32	20	12	-	-	-
45-49 Years	170	91	79	121	69	52	49	22	27	-	-	-
50-54 Years	251	133	118	204	115	89	46	18	28	1	-	1
55-59 Years	335	197	138	277	164	113	54	31	23	4	2	2
60-64 Years	499	284	215	403	238	165	92	43	49	4	3	1
65-69 Years	720	400	320	605	341	264	113	58	55	2	1	1
70-74 Years	1,026	545	481	904	480	424	119	63	56	3	2	1
75-79 Years	1,487	719	768	1,381	674	707	101	42	59	5	3	2
80-84 Years	1,467	658	809	1,392	625	767	73	31	42	2	2	-
85-89 Years	1,052	402	650	1,001	376	625	49	26	23	2	-	2
90 and Over	562	178	384	528	171	357	34	7	27	-	-	-
Not Stated	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	7,826	3,732	4,094	7,002	3,344	3,658	800	374	426	24	14	10
Median Age at Death	77	75	78	77	76	79	68	68	69	*	*	*

\* Not computed due to limited number of occurrences

## ACCIDENTS

In 1971, accidents accounted for 4,426 resident deaths in Michigan. Although this total is somewhat reduced from the number of such deaths recorded in 1968, and almost identical to the 4,428 accidental deaths recorded in 1970, accidental deaths still comprise a significant proportion (5.7 percent) of all deaths.

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 50.5 percent of all accidental deaths occurring in 1971 to Michigan residents. The second (15.2 percent in 1971) major cause of accidental deaths occurring to Michigan residents is accidental falls (Table 2.10).

The median age at death for all accidents was 37 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 (69 years).

TABLE 2.10  
Accidental Deaths by Type of Accident  
Michigan Residents, 1971

ICDA LIST NO.	TYPE OF ACCIDENTS	NUMBER OF DEATHS	PERCENT
E800-E807	Railway Accidents	21	0.5
E810-E819	Motor Vehicle Traffic Accidents	2,234	50.5
E820-E823	Motor Vehicle Non-traffic Accidents	40	0.9
E825-E827	Other Road Vehicle Accidents	5	0.1
E830-E838	Water Transport Accidents	64	1.4
E840-E845	Air and Space Transport Accidents	46	1.0
E850-E859	Accidental Poisonings by Drugs and Medicaments	91	2.1
E860-E869	Accidental Poisoning by Other Solid and Liquid Substances	33	0.7
E870-E877	Accidental Poisoning by Gases and Vapors	90	2.0
E880-E887	Accidental Falls	674	15.2
E890-E899	Accidents Caused by Fires and Flames	288	6.5
E900-E909	Accidents Due to Natural and Environmental Factors	23	0.5
E910-E929	Other Accidents	770	17.4
E930-E936	Surgical and Medical Complications and Misadventures	24	0.5
E940-E949	Late Effects of Accidental Injury	23	0.5
	TOTAL	4,426	99.8

## INFANT DEATHS

Of the 77,395 deaths occurring to Michigan residents in 1971, 3,157 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 (Table 2.11). This probably was due in large part to an ever-increasing number of births attended by physicians which occurred in more modern well-equipped hospitals.

TABLE 2.11

Infant Deaths and Infant Mortality Rates  
Michigan and United States Residents, 1971

UNITED STATES		YEAR	MICHIGAN	
NO.	RATE		NO.	RATE
107,956	25.3	1961	4,604	23.9
105,479	25.3	1962	4,367	23.9
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
74,100 Prov.	20.7	1969	3,356	20.2
73,700 Prov.	19.8	1970	3,492	20.3
68,200 Prov	19.2	1971	3,157	19.5

As can be seen from Table 2.11 rather moderate declines have occurred in infant death rates for Michigan residents and for the United States as a whole during the period from 1961 to 1971.

There are three subclassifications of infant death:

Deaths Under 1 Day	- 1,191 in 1971
Deaths Under 7 Days	- 2,216 in 1971
Deaths Under 28 Days	- 2,412 in 1971
Total Infant Deaths (Under 1 Year)	- 3,157 in 1971

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 1971, Michigan resident perinatal deaths numbered 4,139 and the perinatal death rate was 25.2.

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 1,047 (33.2 percent) in 1971. Congenital anomalies in 1971 numbered 493, Asphyxia of newborn numbered 385 and immaturity deaths numbered 385. Influenza and pneumonia deaths numbered 193 while accidental deaths numbered 89. As can be observed from Table 2.12 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.



TABLE 2.12

Infant Deaths by Cause of Death  
Michigan Residents, 1971

ICDA LIST NO.	CAUSE	FREQUENCY
008, 009	Enteritis and Other Diarrheal Diseases	15
010-019	Tuberculosis	-
Residual 000-136	Other Infective and Parasitic Diseases	44
140-209	Malignant Neoplasms	11
210-239	Benign Neoplasms	-
250	Diabetes Mellitus	2
280-285	Anemias	5
320	Meningitis	22
390-398, 402, 404, 410-429	Heart Disease	7
430-438	Cerebrovascular Disease	10
466	Acute Bronchitis and Bronchiocitis	6
470-474, 480-486	Influenza and Pneumonia	193
490, 491	Chronic and Unqualified Bronchitis	3
531-533	Peptic Ulcer	4
550-553, 560	Hernia and Intestinal Obstruction	32
571	Cirrhosis of Liver	2
580-584	Nephritis and Nephrosis	2
740-759	Congenital Anomalies	493
764-768 (.0-.8), 772	Birth Injuries	88
776-779	Asphyxia of Newborn	385
777	Immaturity Unqualified	385
Residual 770-778	Other Diseases of Early Infancy	1,047
E800-E949	Accidents	89
E960-E978	Homicide	10
E980-E999	All Other External Causes	7
	All Other Diseases	295
	TOTAL	3,157

## 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, poliomyelitis 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 1971, deaths from all infective and parasitic diseases numbered 593. As can be observed from Table 2.13 the four major causes of death in this group are tuberculosis (173 deaths), septicemia (110 deaths), diarrheal disease (78 deaths) and infectious hepatitis (54 deaths).

Of particular importance is the fact that infants accounted for 9.9 percent of all infective and parasitic disease deaths while accounting for only 4.1 percent of all deaths. The median age at death for those dying due to infective and parasitic diseases is 57 years.

TABLE 2.13

Deaths from Selected Infective and Parasitic Diseases  
Michigan Residents, 1971

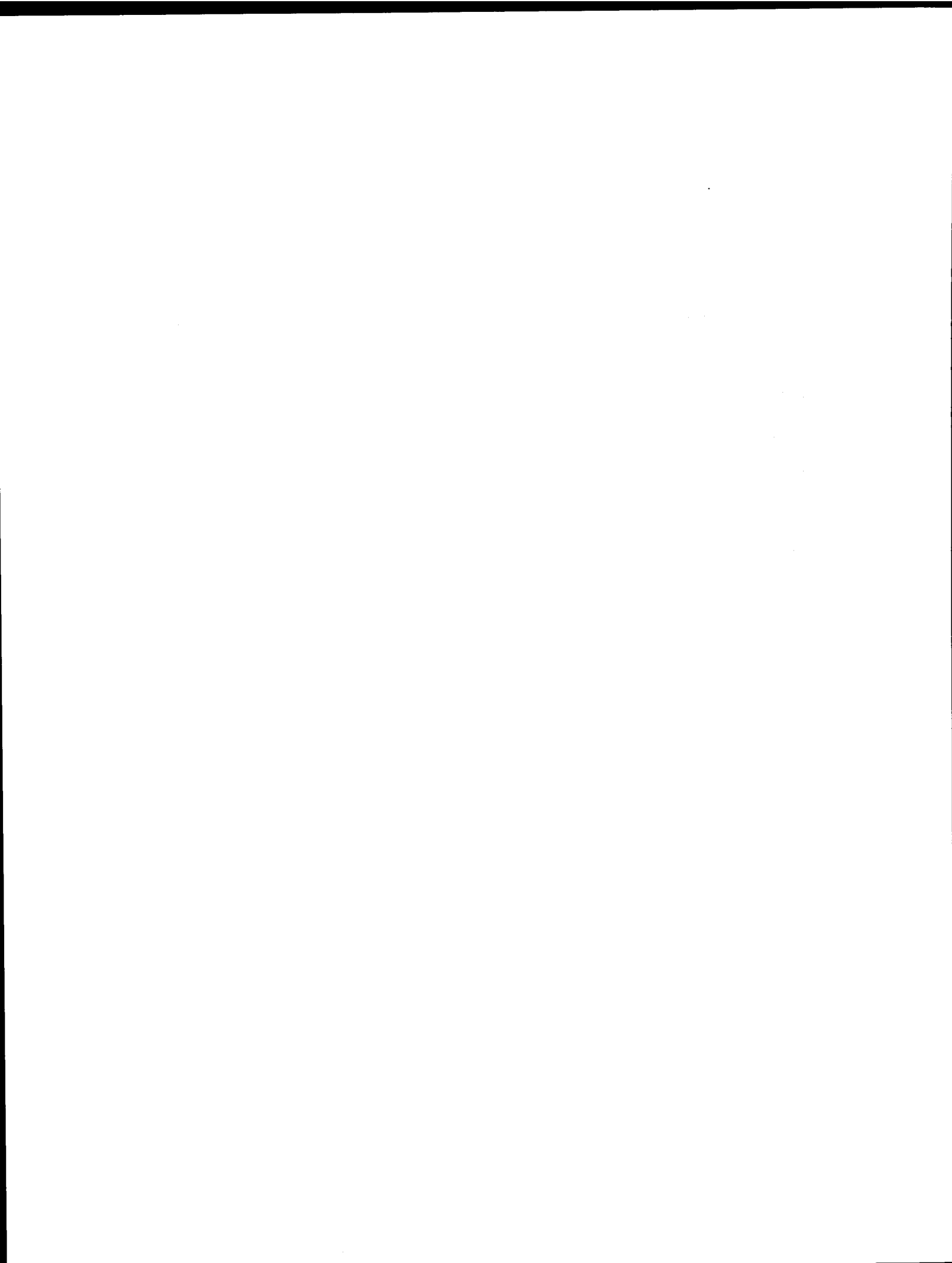
ICDA LIST NO.	CAUSE	FREQUENCY
009	Diarrheal Disease	78
010-019	Tuberculosis	173
034	Streptococcal Sore Throat and Scarlet Fever	4
036	Meningococcal Infections	21
037	Tetanus	2
038	Septicemia	110
044	Late Effects of Acute Poliomyelitis	5
052	Chickenpox	5
054	Herpes Simplex	5
055	Measles	-
056	Rubella	-
065	Viral Encephalitis	20
070	Infectious Hepatitis	54
072	Mumps	-
075	Infectious Mononucleosis	-
084	Malaria	-
090	Congenital Syphilis	-
093	Cardiovascular Syphilis	6
094	Syphilis of Central Nervous System	9
097	Other and Unspecified Syphilis	3
098	Gonococcal Infections	-
	All Other	98
	TOTAL	593

### SECTION III

#### MARRIAGE AND DIVORCE

##### AN OVERVIEW

Total Marriages - 1971	-	92,134
Total Divorces and Annulments - 1971	-	31,790
Marriage Rate - 1971	-	20.5
Divorce Rate - 1971	-	7.1
Median Age of the Bride - 1970	-	21
Median Age of the Groom - 1970	-	23
Median Duration of Marriages Ending in 1971	-	7 Years



## HISTORICAL PERSPECTIVE

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. Of marriages, 93,392 were recorded in Michigan in 1969 (the greatest number recorded this century). Of divorces and annulments, 31,790 were recorded in 1971. This also marks an all time high for Michigan.

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

Changes in the divorce rate have not generally been as pronounced as those that have occurred with respect to the marriage rate. From 1961 to 1971 the rate of persons divorced per 1,000 population increased from 4.1 to 7.1. The divorce rate has varied from a low of 2.0 (1900-1901) to a high of 10.2 (1946).

FIG. 3.1  
MARRIAGE AND DIVORCE RATES  
MICHIGAN OCCURRENCES, 1900-1971

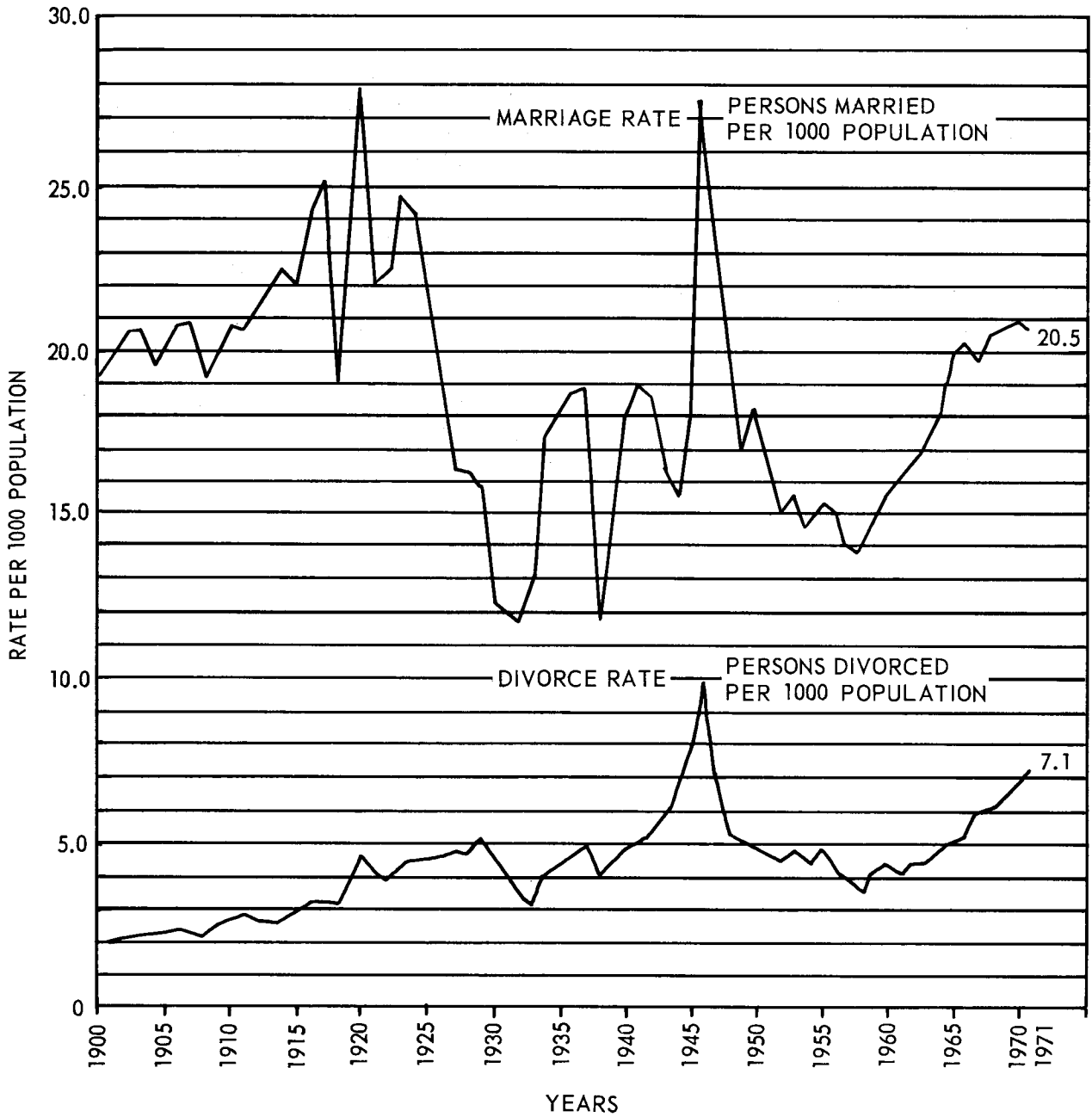


TABLE 3.1

Marriages, Divorces and Annulments  
Michigan and United States Occurrences  
Selected Years, 1920-1971

YEAR	MICHIGAN		MICHIGAN		UNITED STATES	
	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 Prov	6.4 Prov
1970	91,933	29,934	20.7	6.7	21.4 Prov	7.0 Prov
1971	92,134	31,790	20.5	7.1	21.2 Prov	7.4 Prov



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).

TABLE 3.2

Marriages by Residence Status of Bride and Groom  
Michigan Occurrences - 1961 and 1971

RESIDENCE STATUS	1961		1971	
	NUMBER	PERCENT	NUMBER	PERCENT
Both Bride and Groom Residents	56,411	89.1	83,671	90.8
Bride Resident, Groom Non-Resident	2,645	4.2	3,628	3.9
Groom Resident, Bride Non-Resident	678	1.1	972	1.1
Both Bride and Groom Non-Residents	3,586	5.7	3,862	4.2
Residence Status, Not Stated	-	-	1	0.0
TOTAL	63,320	100.1	92,134	100.0

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 more 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 the age group 20 - 24, however, the propensity for marriage becomes more equal. For ages 25 and over eligible males marry more frequently than their female counterparts.

TABLE 3.3

Number of Marriages by Age and Sex  
Michigan Occurrences, 1971

AGE	NUMBER OF MARRIAGES	
	MALE	FEMALE
Under 20*	16,136	33,689
20 - 24	42,245	35,042
25 - 34	19,569	12,536
35 - 44	6,241	4,912
45 and Over	7,943	5,952
Not Stated	-	3
TOTAL	92,134	92,134
Median Age	23	21

\* 14 and Over

ORDER OF MARRIAGE

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

TABLE 3.4

Age at First Marriage and Remarriage: Bride  
Michigan Occurrences - 1961 and 1971

AGES	1961			1971		
	TOTAL	FIRST MARRIAGE	REMARRIAGE	TOTAL	FIRST MARRIAGE	REMARRIAGE
Under 20	25,961	25,497	386	33,689	33,227	415
Percent	41.0	52.7	2.6	36.6	47.5	1.9
20 - 24	20,271	18,130	2,131	35,042	30,646	4,386
Percent	32.0	37.5	14.4	38.0	43.8	19.9
25 - 29	4,928	2,726	2,197	8,549	4,138	4,409
Percent	7.8	5.6	14.8	9.3	5.9	20.0
30 - 34	3,067	955	2,111	3,987	973	3,012
Percent	4.8	2.0	14.2	4.3	1.4	13.7
35 - 44	4,442	714	3,724	4,912	629	4,282
Percent	7.0	1.5	25.1	5.3	0.9	19.4
45 and Over	4,634	377	4,255	5,952	407	5,542
Percent	7.3	0.8	28.7	6.5	0.6	25.1
Not Stated	17	5	12	3	2	1
Percent	0.0	0.0	0.1	0.0	0.0	0.0
TOTAL	63,320	48,404	14,816	92,134	70,022	22,047
Percent	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3.5

Age at First Marriage and Remarriage: Groom  
Michigan Occurrences - 1961 and 1971

AGES	1961			1971		
	TOTAL	FIRST MARRIAGE	REARRIAGE	TOTAL	FIRST MARRIAGE	REARRIAGE
Under 20 Percent	10,222 16.1	10,129 20.7	45 0.3	16,136 17.5	16,044 23.2	60 0.3
20 - 24 Percent	27,507 43.4	26,361 53.9	1,127 7.9	42,245 45.9	39,692 57.4	2,540 11.0
25 - 29 Percent	9,576 15.1	7,528 15.4	2,043 14.2	13,869 15.1	9,306 13.5	4,560 19.8
30 - 34 Percent	4,606 7.3	2,503 5.1	2,102 14.7	5,700 5.9	2,056 3.0	3,642 15.8
35 - 44 Percent	5,234 8.3	1,615 3.3	3,617 25.2	6,241 6.8	1,248 1.8	4,991 21.7
45 and Over Percent	6,165 9.7	765 1.5	5,405 37.7	7,943 8.6	745 1.1	7,195 31.3
Not Stated Percent	10 0.0	4 0.0	6 0.0	- -	- -	- -
TOTAL Percent	63,320 100.0	48,896 100.0	14,345 100.0	92,134 100.0	69,091 100.0	22,988 100.0

## 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 1971 was 7 years. This is the same figure as observed for 1961. The increase in the percentage of marriage ending in divorce and lasting less than 10 years was 4.5 during this period (Table 3.6).

TABLE 3.6  
Divorces and Annulments by Duration of Marriage  
Michigan Occurrences - 1961 and 1971

DURATION IN YEARS	1961			1971		
	NO.	PERCENT	CUMULATIVE PERCENT	NO.	PERCENT	CUMULATIVE PERCENT
Under 1 Year	240	1.5	1.5	280	0.9	0.9
1 - 4	4,558	28.1	29.6	10,259	32.3	33.2
5 - 9	4,433	27.3	56.9	8,955	28.2	61.4
10 - 14	2,835	17.5	74.4	4,540	14.3	75.7
15 - 19	1,831	11.3	85.7	3,029	9.5	85.2
20 - 24	1,155	7.1	92.8	2,404	7.6	92.8
25 - 29	606	3.7	96.5	1,307	4.1	96.9
30 - 34	263	1.6	98.1	603	1.9	98.8
35 - 39	142	0.9	99.0	205	0.6	99.4
40 - 44	76	0.5	99.5	78	0.2	99.6
45 - 49	31	0.2	99.7	30	0.1	99.7
50 and Over	7	0.0	99.7	16	0.0	99.7
Not Stated	44	0.3	100.0	84	0.3	100.0
TOTAL	16,219	100.0	100.0	31,790	100.0	100.0
Median Duration	7			7		

The number of children under 18 affected by divorce has more than doubled since 1961. While the percentage of divorces with no children present has actually decreased, the opposite is true for marital unions with children present (Table 3.7).

TABLE 3.7

Divorces and Annulments by Children Under 18 Present  
Michigan Occurrences - 1961 and 1971

NUMBER OF CHILDREN	DIVORCES AND ANNULMENTS				PERCENTS	
	1961	ESTIMATED TOTAL CHILDREN (MINIMUM)	1971	ESTIMATED TOTAL CHILDREN (MINIMUM)	1961	1971
Zero	7,070	0	11,694	0	43.5	36.8
One	3,529	3,529	7,619	7,619	21.8	24.0
Two	2,826	5,652	6,209	12,418	17.4	19.5
Three	1,589	4,767	3,332	9,996	9.9	10.5
Four	724	2,896	1,704	6,816	4.5	5.4
Five or More	481	2,405	1,172	5,860	3.0	3.7
Not Stated			60		0.0	0.2
TOTAL	16,219	19,249	31,790	42,709	100.1	100.1

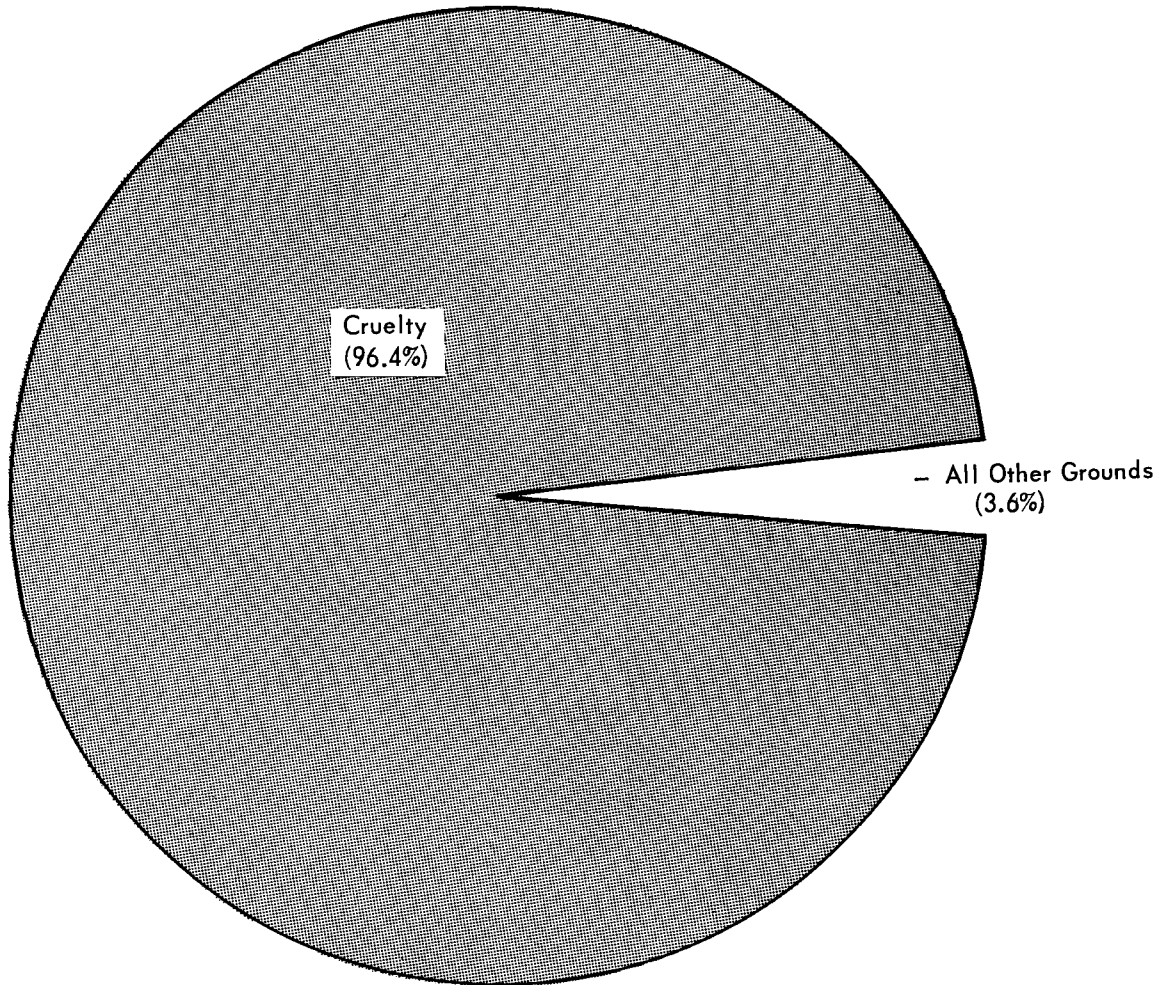
Legal ground for divorce in Michigan changed little from 1961 to 1971. Cruelty continued to be the ground for divorce in the vast majority of cases.

TABLE 3.8

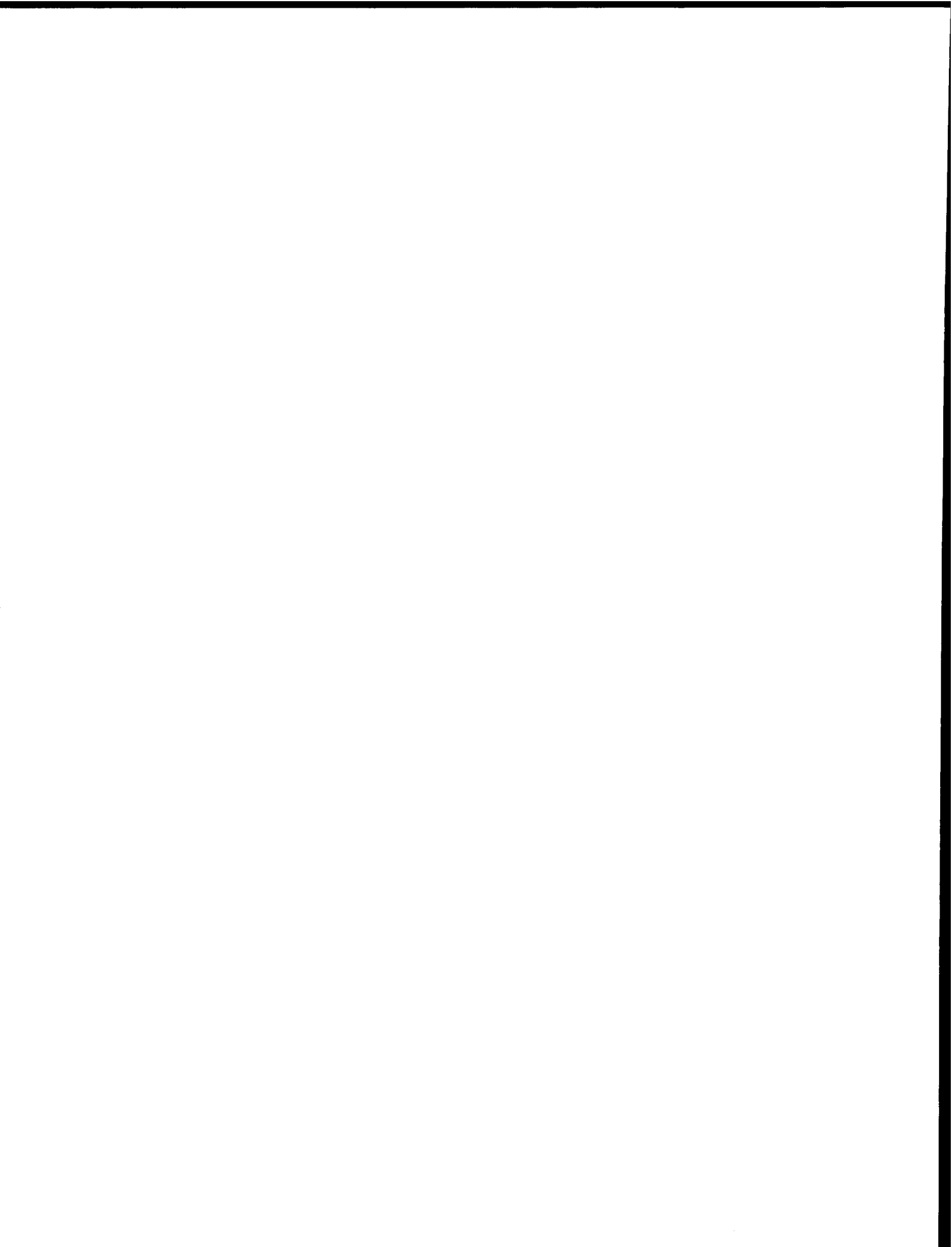
Divorces and Annulments by Legal Grounds for Decree  
Michigan Occurrences - 1961 and 1971

LEGAL GROUNDS	1961		1971	
	NO.	PERCENT	NO.	PERCENT
Cruelty	14,995	92.4	30,641	96.4
Desertion	653	4.0	362	1.1
Nonsupport	253	1.6	221	0.7
Fraud	145	0.9	230	0.7
Bigamy	30	0.2	19	0.1
Conviction of Crime	19	0.1	20	0.1
Adultery	7	0.0	12	0.0
Drunkenness	32	0.2	12	0.0
Other	25	0.2	75	0.2
Not Stated	60	0.4	198	0.6
TOTAL	16,219	100.0	31,790	99.9

FIG. 3.2  
DIVORCES AND ANNULMENTS BY LEGAL GROUNDS  
MICHIGAN OCCURRENCES - 1971







SECTION IV  
REFERENCE APPENDIX

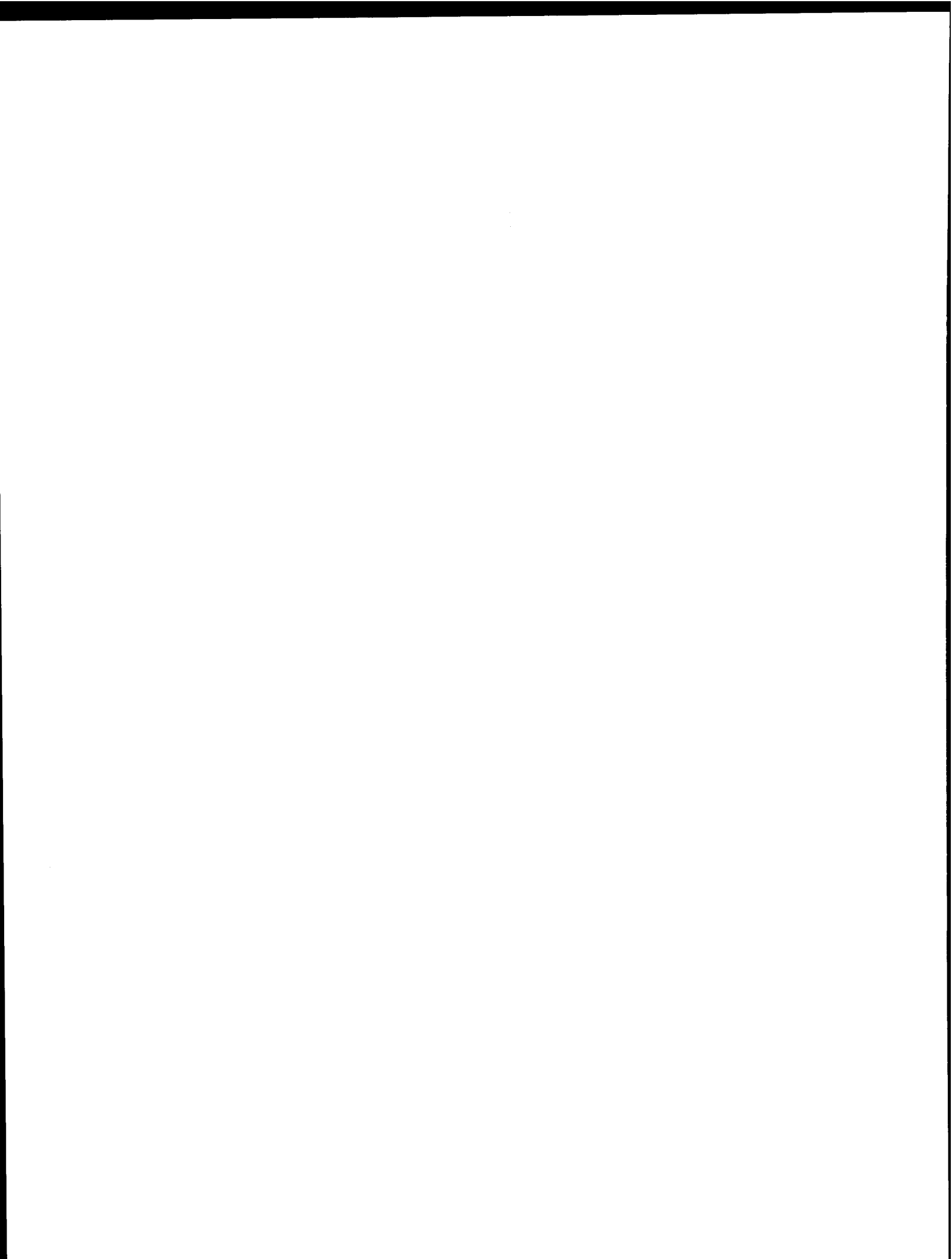


TABLE 4.1

POPULATION; LIVE BIRTHS - TOTAL AND ILLEGITIMATE; DEATHS - ALL AGES, INFANT, NEONATAL, PERINATAL, FETAL, MATERNAL, AND DEATHS DUE TO IMMATURITY; MARRIAGES; AND DIVORCES  
MICHIGAN, 1900 - 1971

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

Year	Population*	NUMBER											
		LIVE BIRTHS			DEATHS							Marriages	Divorces
		Total	Illegitimate	All Ages	Under 1 Yr	Under 28 Days	Perinatal	Due to Immaturity	Fetal	Maternal			
1900	2,420,982	43,699	332	32,453	6,866			620	1,325	452	23,295	2,435	
1901	2,459,901	43,221	365	32,834	6,319			524	1,501	531	24,079	2,448	
1902	2,498,820	45,546	383	31,472	5,949			608	1,793	468	25,653	2,828	
1903	2,537,739	46,020	490	33,176	6,488			542	1,814	427	26,029	2,945	
1904	2,576,658	47,508	562	34,494	6,419			632	1,911	436	24,918	2,808	
1905	2,615,578	46,976	444	34,679	7,054			751	2,044	416	26,307	2,825	
1906	2,654,497	58,599	1,090	37,033	7,952			830	2,358	400	27,519	3,192	
1907	2,693,416	59,029	1,041	36,701	6,906			855	2,358	391	27,940	3,107	
1908	2,732,335	64,772	888	36,761	7,697			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	4,125	
1912	2,981,821	69,537	1,222	38,804	6,985			2,340	2,906	396	31,694	3,838	
1913	3,067,645	73,058	1,227	40,827	7,659			2,480	2,953	528	33,529	3,978	
1914	3,153,469	76,761	1,192	39,906	7,431			2,391	3,113	507	35,316	4,395	
1915	3,239,293	81,100	1,363	40,441	6,943			2,207	3,357	488	35,527	4,757	
1916	3,325,116	87,062	1,351	46,047	8,415			2,498	3,689	503	40,143	5,540	
1917	3,410,940	89,419	1,101	47,236	7,916			2,369	3,550	586	42,791	5,627	
1918	3,496,764	91,261	1,142	54,617	8,197			2,362	3,686	709	33,260	5,493	
1919	3,582,588	84,062	1,002	45,636	7,560			2,183	3,361	578	45,579	7,469	
1920	3,668,412	92,245	1,445	51,982	8,587			2,512	3,770	795	50,805	8,679	
1921	3,785,799	96,035	1,346	44,186	7,584			2,481	3,669	605	41,508	7,676	
1922	3,903,186	90,042	1,180	43,817	6,730			1,793	3,779	551	43,561	7,591	
1923	4,020,573	92,956	1,210	49,333	7,477			1,911	3,657	581	49,569	8,745	
1924	4,137,960	98,187	1,443	47,304	7,088	4,119	6,791	1,970	3,703	636	49,788	9,400	
1925	4,255,347	98,993	1,258	49,417	7,498	4,022	6,667	1,987	3,670	629	46,276	9,650	
1926	4,372,734	98,289	1,669	54,080	7,620	4,054	6,773	1,986	3,816	631	39,788	9,795	
1927	4,490,121	99,940	1,872	50,600	6,766	3,915	6,794	1,911	3,834	667	36,276	10,617	
1928	4,607,508	97,462	1,853	54,755	6,806	3,739	6,594	1,846	3,701	603	37,300	10,615	
1929	4,724,895	98,695	1,632	56,117	6,605	3,777	6,613	1,853	3,710	617	36,816	12,094	
1930	4,842,325	98,882	1,600	51,561	6,213	3,624	6,518	1,805	3,714	597	29,482	10,639	
1931	4,883,703	90,547	1,633	49,068	5,187	3,084	5,643	1,473	3,220	539	28,856	9,507	
1932	4,925,081	85,254	1,697	49,569	4,630	2,798	5,210	1,372	2,980	493	28,552	7,889	
1933	4,966,459	80,482	2,041	48,507	4,094	2,591	4,906	1,364	2,776	447	33,132	7,671	
1934	5,007,837	83,944	2,124	50,440	4,377	2,717	4,781	1,419	2,607	450	43,241	10,124	
1935	5,049,216	87,403	2,194	51,051	4,170	2,550	4,832	1,389	2,717	438	45,313	10,844	
1936	5,090,594	88,457	2,157	54,777	4,479	2,647	4,726	1,395	2,625	425	47,023	11,419	
1937	5,131,972	91,566	2,234	53,468	4,374	2,700	4,919	1,415	2,707	326	47,954	12,472	
1938	5,173,350	96,962	2,331	50,678	4,319	2,734	4,984	1,484	2,732	345	30,105	10,646	
1939	5,214,728	94,432	2,217	52,017	3,952	2,594	4,706	1,396	2,572	280	37,723	11,589	
1940	5,256,106	99,106	2,280	52,092	4,022	2,629	4,749	1,298	2,602	292	46,342	12,054	
1941	5,437,546	107,498	2,370	52,671	4,166	2,687	4,991	1,353	2,769	298	50,989	13,317	
1942	5,538,857	124,068	2,532	52,738	4,606	3,091	5,581	1,575	3,067	260	51,582	14,085	
1943	5,377,329	125,441	2,569	56,774	4,804	2,979	5,563	1,488	3,213	237	44,385	15,259	
1944	5,377,329	113,586	3,115	54,016	4,326	2,784	5,140	1,412	2,874	198	41,678	18,356	
1945	5,435,092	111,657	3,483	53,641	4,908	2,670	4,906	1,339	2,703	166	48,329	21,133	
1946	5,708,415	138,572	3,908	54,856	4,561	3,323	5,978	1,735	3,168	163	78,808	29,158	
1947	6,069,000	160,275	4,311	56,807	5,055	3,677	6,583	1,953	3,422	173	71,319	21,386	
1948	6,195,000	153,726	4,310	56,520	4,617	3,352	5,968	1,820	3,132	120	61,986	16,017	
1949	6,352,000	156,469	3,953	57,107	4,520	3,232	5,746	1,795	2,994	105	53,109	16,274	
1950	6,371,766	160,055	4,425	57,567	4,214	3,043	5,781	1,096	3,095	91	58,180	15,979	
1951	6,545,000	172,451	4,367	59,181	4,505	3,296	6,088	1,232	3,158	94	53,411	15,446	
1952	6,708,000	177,835	4,513	59,138	4,689	3,414	6,266	1,256	3,224	82	50,487	14,925	
1953	6,852,000	182,968	4,770	62,087	4,728	3,389	6,188	1,114	3,180	79	53,308	16,537	
1954	7,024,000	192,104	5,610	60,706	4,795	3,560	6,415	1,298	3,269	94	51,243	16,240	
1955	7,236,000	196,294	5,883	63,087	4,873	3,707	6,381	1,272	3,029	61	55,698	17,676	
1956	7,516,000	206,068	6,494	64,352	5,047	3,796	6,655	1,244	3,245	84	57,068	16,228	
1957	7,803,000	208,488	6,789	66,435	5,093	3,884	6,668	1,322	3,154	79	55,121	15,442	
1958	7,866,000	202,690	6,816	65,899	4,980	3,789	6,516	1,208	3,101	69	55,159	14,040	
1959	7,960,000	198,301	6,729	66,812	4,846	3,674	6,250	1,201	2,928	72	58,826	16,168	
1960	7,823,194	195,056	7,200	67,912	4,702	3,580	6,247	1,148	3,008	75	61,090	16,656	
1961	7,903,000	192,825	8,017	67,375	4,604	3,475	5,875	1,003	2,735	78	63,320	16,219	
1962	7,939,000	182,790	7,998	70,049	4,367	3,251	5,669	907	2,703	56	65,002	17,500	
1963	8,030,000	178,871	8,769	72,438	4,150	3,109	5,407	816	2,540	71	68,160	17,479	
1964	8,100,000	175,103	9,724	72,129	4,043	3,071	5,293	807	2,466	62	73,911	19,400	
1965	8,199,283	166,464	10,888	73,665	3,936	2,909	5,139	768	2,475	54	81,247	20,305	
1966	8,314,070	165,794	12,299	74,596	3,751	2,830	4,909	819	2,295	54	83,903	21,727	
1967	8,615,000	162,756	13,403	75,360	3,595	2,714	4,693	718	2,195	52	84,363	23,620	
1968	8,675,000	159,058	14,451	76,855	3,438	2,617	4,476	487	2,064	44	90,984	25,400	
1969	8,734,000	165,760	16,329	76,693	3,356	2,550	4,488	459	2,175	27	93,392	28,347	
1970	8,875,083	171,667	18,712	76,321	3,492	2,683	4,522	436	2,060	29	91,933	29,934	
1971	8,996,000	162,244	19,098	77,395	3,157	2,412	4,139	386	1,923	32	92,134	31,790	

\*1900 - 1960: United States Bureau of Census April 1 Census counts and July 1 estimates.

1961 - 1964: University of Michigan Population Studies Center July 1 estimates.

1965 - 1969: Michigan Center for Health Statistics July 1 estimate.

1970: United States Bureau of Census April 1 Census counts.

1971: United States Bureau of Census July 1 estimates.

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.

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.

Michigan Center for Health Statistics  
Michigan Department of Public Health

TABLE 4.2

LIVE BIRTH RATES - TOTAL AND ILLEGITIMATE; DEATH RATES - ALL AGES, INFANT, NEONATAL, PERINATAL,  
FETAL, MATERNAL AND DEATH RATES DUE TO IMMATURITY; MARRIAGE AND DIVORCE RATES  
MICHIGAN, 1900-1971

(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.)

Year	LIVE BIRTHS		All Ages	Under 1 Yr	Under 28 Days	DEATHS				PERSONS	
	Total	Illegit- imate				Peri- natal	Due to Immaturity	Fetal	Maternal	Married	Divorced
1900	18.1	7.6	13.4	157.1			14.2	30.3	103.4	19.2	2.0
1901	17.6	8.4	13.3	146.2			12.1	34.7	122.9	19.6	2.0
1902	18.2	8.4	12.6	130.6			13.3	39.4	102.8	20.5	2.3
1903	18.1	10.6	13.1	141.0			11.8	39.4	92.8	20.5	2.3
1904	18.4	11.8	13.4	135.1			13.3	40.2	91.8	19.3	2.2
1905	18.0	9.5	13.3	150.2			16.0	43.5	88.6	20.1	2.2
1906	22.1	18.6	14.0	135.7			14.2	40.2	68.3	20.7	2.4
1907	21.9	17.6	13.6	117.0			14.5	39.9	66.2	20.7	2.3
1908	23.7	13.7	13.5	118.8			15.1	41.6	67.9	18.9	2.2
1909	23.2	16.6	13.1	115.7			17.9	39.5	63.0	19.7	2.5
1910	22.8	16.4	14.2	124.8			32.0	39.9	67.2	20.7	2.6
1911	22.7	16.5	13.1	108.4			33.8	41.3	68.6	20.6	2.8
1912	23.3	17.6	13.0	100.4			33.6	41.8	56.9	21.3	2.6
1913	23.8	16.8	13.3	104.8			33.9	40.4	72.3	21.9	2.6
1914	24.3	15.5	12.7	96.8			31.1	40.6	66.0	22.4	2.8
1915	25.0	16.8	12.5	85.6			27.2	41.4	60.2	21.9	2.9
1916	26.2	15.5	13.8	96.7			28.7	42.4	57.8	24.1	3.3
1917	26.2	12.3	13.8	88.5			26.5	39.7	65.5	25.1	3.3
1918	26.1	12.5	15.6	89.8			25.9	40.4	77.7	19.0	3.1
1919	23.5	11.9	12.7	89.9			26.0	40.0	68.8	25.4	4.2
1920	25.1	15.7	14.2	93.1			27.2	40.9	86.2	27.7	4.7
1921	25.4	14.0	11.7	79.0			25.8	38.2	63.0	21.9	4.1
1922	23.1	13.1	11.2	74.7			19.9	42.0	61.2	22.3	3.9
1923	23.1	13.0	12.3	80.4			20.6	39.3	62.7	24.7	4.4
1924	23.7	14.7	11.4	72.2	41.9	66.7	20.1	37.7	64.8	24.1	4.5
1925	23.3	12.7	11.6	75.7	40.6	64.9	20.1	37.1	63.5	21.7	4.5
1926	22.5	17.0	12.4	77.5	41.2	66.3	20.2	38.8	64.2	18.7	4.5
1927	22.3	18.7	11.3	67.7	39.2	65.5	19.1	38.4	66.7	16.2	4.7
1928	21.2	19.0	11.9	69.8	38.4	65.2	18.9	38.0	61.9	16.2	4.6
1929	20.9	16.5	11.9	66.9	38.3	64.6	18.8	37.6	62.5	15.6	5.1
1930	20.4	16.2	10.6	62.8	36.6	63.5	18.3	37.6	60.4	12.2	4.4
1931	18.5	18.0	10.1	57.3	34.1	60.2	16.3	35.6	59.5	11.8	3.9
1932	17.3	19.9	10.1	54.3	32.8	59.0	16.1	35.0	57.8	11.6	3.2
1933	16.2	25.4	9.8	50.9	32.2	58.9	16.9	34.5	55.5	13.3	3.1
1934	16.8	25.3	10.1	52.1	32.4	55.2	16.9	31.1	53.6	17.3	4.0
1935	17.3	25.1	10.1	47.7	29.2	53.6	15.9	31.1	50.1	17.9	4.3
1936	17.4	24.4	10.8	50.6	29.9	51.9	15.8	29.7	48.0	18.5	4.5
1937	17.8	24.4	10.4	47.8	29.5	52.2	15.5	29.6	35.6	18.7	4.9
1938	18.7	24.0	9.8	44.5	28.2	50.0	15.3	28.2	35.6	11.6	4.1
1939	18.1	23.5	10.0	41.8	27.5	48.5	14.8	27.2	29.6	14.5	4.4
1940	18.9	23.0	9.9	40.6	26.5	46.7	13.1	26.3	29.5	17.6	4.6
1941	19.8	22.0	9.7	38.8	25.0	45.3	12.6	25.8	27.7	18.8	4.9
1942	22.4	20.4	9.5	37.1	24.9	43.9	12.7	24.7	21.0	18.6	5.1
1943	23.3	20.5	10.6	38.3	23.7	43.2	11.9	25.6	18.9	16.5	5.7
1944	21.1	27.4	10.0	38.1	24.5	44.1	12.4	25.3	17.4	15.5	6.8
1945	20.5	31.2	9.9	35.9	23.9	42.9	12.0	24.2	14.9	17.8	7.8
1946	24.3	28.2	9.6	32.8	24.0	42.2	12.5	22.9	11.8	27.6	10.2
1947	26.4	26.9	9.4	31.5	22.9	40.2	12.2	21.4	10.8	23.5	7.1
1948	24.8	28.0	9.1	30.0	21.8	38.0	11.8	20.4	7.8	20.0	5.2
1949	24.6	25.3	9.0	28.9	20.7	36.0	11.5	19.1	6.7	16.7	5.1
1950	25.1	27.6	9.0	26.3	19.0	35.4	6.8	19.3	5.7	18.3	5.0
1951	26.3	25.3	9.0	26.1	19.1	34.7	7.1	18.3	5.5	16.3	4.7
1952	26.5	25.4	8.8	26.4	19.2	34.6	7.1	18.1	4.6	15.1	4.4
1953	26.7	26.1	9.1	25.8	18.5	33.2	6.1	17.4	4.3	15.6	4.8
1954	27.3	29.2	8.6	25.0	18.5	32.8	6.8	16.9	4.9	14.6	4.6
1955	27.1	30.0	8.7	24.8	18.9	32.0	6.5	15.4	3.1	15.4	4.9
1956	27.4	31.5	8.6	24.5	18.4	31.8	6.0	15.7	4.1	15.2	4.3
1957	26.7	32.6	8.5	24.4	18.6	31.5	6.3	15.1	3.8	14.1	4.0
1958	25.8	33.6	8.4	24.6	18.7	31.7	6.0	15.3	3.4	14.0	3.6
1959	24.9	33.9	8.4	24.4	18.5	31.1	6.1	14.8	3.6	14.8	4.1
1960	24.9	36.9	8.7	24.1	18.4	31.5	5.9	15.4	3.8	15.6	4.3
1961	24.4	41.6	8.5	23.9	18.0	30.0	5.2	14.2	4.0	16.0	4.1
1962	23.0	43.8	8.8	23.9	17.8	30.6	5.0	14.8	3.1	16.4	4.4
1963	22.3	49.0	9.0	23.2	17.4	29.8	4.6	14.2	4.0	17.0	4.4
1964	21.6	55.5	8.9	23.1	17.5	29.8	4.6	14.1	3.5	18.2	4.8
1965	20.3	65.4	9.0	23.6	17.5	30.4	4.6	14.9	3.2	19.8	5.0
1966	19.9	74.2	9.0	22.6	17.1	29.2	4.9	13.8	3.3	20.2	5.2
1967	18.9	82.4	8.7	22.1	16.7	28.4	4.4	13.5	3.2	19.6	5.9
1968	18.3	90.9	8.9	21.6	16.5	27.8	3.1	13.0	2.8	21.0	5.9
1969	19.0	98.5	8.8	20.2	15.4	26.7	2.8	13.1	1.6	21.4	6.5
1970	19.3	109.0	8.6	20.3	15.6	26.0	2.5	12.0	1.7	20.7	6.7
1971	18.0	117.7	8.6	19.5	14.9	25.2	2.4	11.9	2.0	20.5	7.1

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.

Michigan Center for Health Statistics  
Michigan Department of Public Health

TABLE 4.3  
 REPORTED CASES OF CERTAIN COMMUNICABLE DISEASES  
 MICHIGAN OCCURRENCES, 1900-1971

Year	Diphtheria	Scarlet Fever & Strep. Throat	Smallpox	Typhoid Fever	Whooping Cough	Measles	Infectious Hepatitis & Serum	Tuberculosis (all forms)	Meningococcal Infections	Poliomyelitis	Syphilis	Gonorrhea	Chancroid
1900	2,706	6,734	694	5,122	3,375	20,356		2,721	654				
1901	2,498	7,726	5,088	3,002	2,955	4,629		2,915	506				
1902	2,993	6,582	7,086	2,456	3,534	11,978		2,658	528				
1903	3,670	5,353	6,341	2,840	4,172	8,941		2,745	525				
1904	3,510	2,088	5,753	3,028	1,779	10,386		2,928	468				
1905	2,159	2,286	2,985	2,774	1,196	6,061		2,590	577				
1906	3,648	3,066	1,240	3,163	1,364	7,403		2,653	533				
1907	2,935	2,514	1,712	1,953	872	12,139		2,699	575				
1908	2,658	3,087	2,306	2,656	1,248	4,775		2,705	487				
1909	3,109	5,153	1,533	2,694	1,054	9,047		3,423	457				
1910	3,433	6,501	3,319	3,361	1,136	13,934		4,415	522	104			
1911	3,762	5,177	898	2,660	1,897	9,639		5,254	478	68			
1912	3,294	4,533	1,127	2,847	1,255	2,834		1,958	88	78			
1913	5,505	4,140	1,995	2,253	929	9,185		1,920	165	56			
1914	5,149	3,769	1,527	2,167	1,822	11,356		2,566	205	49			
1915	4,386	3,402	1,094	1,956	2,258	4,438		3,648	107	95			
1916	5,625	6,932	1,581	2,513	1,837	12,143		7,076	163	598			
1917	8,499	14,322	3,674	1,723	3,211	14,472		4,856	75	91			
1918	6,128	5,944	5,241	1,339	2,563	6,726		3,655	95	121			
1919	7,896	6,269	2,381	1,254	1,829	8,885		4,231	75	155	5,077	7,910	186
1920	10,360	10,280	4,818	1,421	7,171	22,364		4,994	203	67	8,117	11,463	262
1921	12,075	10,893	4,512	1,837	6,696	3,043		5,708	173	483	7,421	9,774	153
1922	8,513	9,687	1,230	1,108	5,642	12,107		5,573	159	43	7,900	9,717	90
1923	7,725	12,868	2,311	982	7,617	30,041		5,471	186	39	10,480	9,597	235
1924	6,011	12,989	4,527	782	4,364	18,290		3,570	157	647	13,000	10,490	183
1925	3,925	12,303	784	962	7,576	10,332		5,785	128	99	14,668	10,660	104
1926	5,377	12,681	549	583	8,776	39,946		5,387	96	107	14,872	10,707	103
1927	4,575	11,011	1,467	581	6,818	8,303		5,406	138	282	15,713	9,318	107
1928	3,724	10,486	1,335	390	9,700	27,039		5,885	276	77	15,323	8,592	100
1929	4,618	14,245	2,410	310	9,340	18,040		6,248	1,864	180	16,606	9,661	333
1930	3,206	11,174	2,375	504	7,937	28,129		5,128	901	208	16,538	8,554	163
1931	1,831	13,023	915	424	11,448	6,212		6,132	293	1,137	14,662	7,843	170
1932	1,188	15,255	222	513	13,091	42,129		7,103	129	112	11,969	6,963	140
1933	1,152	16,419	46	453	11,720	21,654		6,624	86	93	7,691	6,447	85
1934	614	19,238	49	486	11,255	6,528		5,264	53	230	6,483	6,188	132
1935	645	11,849	16	355	13,427	79,061		4,642	113	614	6,416	6,372	110
1936	661	12,650	32	287	14,287	2,453		5,157	120	152	6,401	6,460	133
1937	842	24,798	152	241	11,426	6,154		6,469	87	421	8,708	7,072	244
1938	619	18,362	274	285	14,563	79,400		6,335	69	59	14,684	7,046	341
1939	452	15,836	371	177	8,997	12,948		6,119	46	904	13,144	6,364	286
1940	264	10,366	76	120	11,757	20,206		6,063	49	1,228	9,999	7,650	218
1941	242	8,756	114	147	16,512	70,748		5,371	49	270	11,370	8,767	359
1942	243	7,503	17	74	11,602	8,569		5,720	66	162	12,461	8,753	276
1943	281	5,044	18	115	12,091	51,764		6,546	757	255	15,933	9,526	260
1944	419	8,963	10	78	4,049	26,711		6,419	857	884	17,288	11,987	185
1945	630	9,304	16	59	5,339	6,328	134	5,471	270	215	16,046	12,565	244
1946	385	5,977	3	85	8,116	42,261	34	5,548	185	1,091	18,051	12,635	206
1947	238	4,834	1	77	10,472	9,574	14	6,470	113	646	15,276	10,989	216
1948	126	5,934	-	49	2,668	42,952	9	6,109	107	775	12,100	9,448	465
1949	119	8,852	-	48	4,157	20,279	28	5,953	120	2,909	8,740	9,427	336
1950	84	4,665	-	43	9,184	38,245	48	5,538	133	2,029	8,830	8,678	202
1951	48	8,181	-	33	3,156	15,227	325	6,144	138	1,463	6,532	8,494	187
1952	45	8,325	-	53	1,992	32,941	283	6,152	169	3,912	7,377	7,691	58
1953	12	5,885	-	31	2,932	23,334	868	5,643	151	2,346	5,619	8,790	43
1954	57	5,142	-	30	5,620	40,725	1,419	5,764	150	2,168	4,686	9,940	47
1955	59	5,880	-	24	4,249	23,882	1,264	5,488	170	1,177	4,865	10,306	58
1956	220	7,349	-	56	1,907	41,966	814	5,515	182	656	4,785	9,598	52
1957	130	7,193	-	12	1,363	19,070	657	5,011	175	498	4,571	8,428	97
1958	6	5,380	-	18	1,233	41,448	688	5,587	228	1,228	4,267	8,621	178
1959	3	9,452	-	8	3,001	12,234	1,136	4,743	141	448	3,421	8,033	136
1960	9	9,287	-	14	1,129	36,161	2,113	4,127	169	88	3,647	8,372	112
1961	3	8,347	-	7	639	29,391	4,607	3,838	253	40	3,309	9,505	102
1962	4	8,116	-	12	1,756	25,303	3,280	3,474	139	21	4,331	11,654	75
1963	5	11,964	-	14	1,410	48,752	2,661	3,298	104	18	5,512	11,043	98
1964	1	17,228	-	13	957	30,897	2,472	3,047	80	3	5,220	12,028	106
1965	-	14,622	-	7	612	28,132	2,625	3,069	107	1	5,638	14,319	95
1966	1	13,862	-	7	653	15,251	2,589	3,259	135	1	5,842	15,424	114
1967	1	13,269	-	8	1,058	1,048	1,915	2,951	76	3	5,581	17,088	78
1968	-	10,101	-	1	429	353	2,356	2,618	94	3	5,351	18,153	105
1969	-	9,763	-	6	192	401	3,359	2,133	114	1	3,809	18,534	103
1970	-	11,863	-	14	195	1,834	4,594	1,992	69	2	3,920	20,359	118
1971	1	11,244	-	10	140	2,659	4,828	1,789	64	-	4,800	22,260	93

Note: Meningococcal infections - Prior to 1952 data were for meningococcal meningitis. Tuberculosis, syphilis, gonorrhea and chancroid are resident cases.

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TABLE 4.4  
CASE RATES OF CERTAIN REPORTED COMMUNICABLE DISEASES  
MICHIGAN OCCURRENCES, 1900-1971

(Rates per 100,000 Population)

Year	Diphtheria	Scarlet Fever & Strep. Throat	Smallpox	Typhoid Fever	Whooping Cough	Measles	Infectious Hepatitis & Serum	Tuberculosis (All Forms)	Meningococcal Infections	Polio/myelitis	Syphilis	Gonorrhea	Chancroid
1900	111.8	278.2	28.7	211.6	139.4	840.8		112.4	27.0				
1901	101.5	314.1	206.8	122.0	120.1	188.2		118.5	20.6				
1902	119.8	263.4	283.6	98.3	141.4	479.3		106.4	21.1				
1903	144.6	210.9	249.9	111.9	164.4	352.3		108.2	20.7				
1904	136.2	158.7	223.3	117.5	69.0	403.1		113.6	17.4				
1905	82.5	87.4	114.1	106.1	45.7	231.7		99.0	22.1				
1906	137.4	115.5	46.7	119.2	51.4	278.9		99.9	20.1				
1907	109.0	93.3	63.6	72.5	32.4	450.7		100.2	21.3				
1908	97.3	113.0	84.4	97.2	45.7	174.8		99.0	17.8				
1909	112.2	185.9	55.3	97.2	38.0	326.5		123.5	16.5				
1910	122.2	231.3	118.1	119.6	40.4	495.8		157.1	18.6	3.7			
1911	129.9	178.8	31.0	91.8	65.5	332.8		181.4	16.5	2.3			
1912	110.5	152.0	37.8	95.5	42.1	95.0		65.7	3.0	2.6			
1913	179.5	135.0	65.0	73.4	30.3	299.4		62.6	5.4	1.8			
1914	163.3	119.5	48.4	68.7	57.8	360.1		81.4	6.5	1.6			
1915	135.4	105.0	33.8	60.4	69.7	137.0		112.6	3.3	2.9			
1916	169.2	208.5	47.5	75.6	55.2	365.2		212.8	4.9	18.0			
1917	249.2	419.9	107.7	50.5	94.1	424.3		142.4	2.2	2.7			
1918	175.2	170.0	149.9	38.3	73.3	192.4		104.5	2.7	3.5			
1919	220.4	175.0	66.5	35.0	51.1	248.0		118.1	2.1	4.3	141.7	220.8	5.2
1920	282.4	280.2	131.3	38.7	195.5	609.6		136.1	5.5	1.8	221.3	312.5	7.1
1921	318.9	287.7	119.2	48.5	176.9	80.4		150.8	4.6	12.8	196.0	258.2	4.0
1922	218.1	248.2	31.5	28.4	144.5	310.2		142.8	4.1	1.1	202.4	248.9	2.3
1923	192.1	320.1	57.5	24.4	189.5	747.2		136.1	4.6	1.0	260.7	238.7	5.8
1924	15.3	313.9	109.4	18.9	105.5	442.0		134.6	3.8	15.6	314.2	253.5	4.4
1925	92.2	289.1	18.4	22.6	178.0	242.8		135.9	3.0	2.3	344.7	250.5	2.4
1926	123.0	290.0	12.6	13.3	200.7	913.5		123.2	2.2	2.4	340.1	244.9	2.4
1927	101.9	245.2	32.7	12.9	151.8	184.9		120.4	3.1	6.3	349.9	207.5	2.4
1928	80.8	227.6	29.0	8.5	210.5	586.9		127.7	6.0	1.7	332.6	186.5	2.2
1929	97.7	301.5	51.0	6.6	197.7	381.8		132.2	39.4	3.8	351.4	204.5	7.0
1930	66.2	230.8	49.0	10.4	163.9	580.9		105.9	18.6	4.3	341.5	176.6	3.4
1931	37.5	266.7	18.7	8.7	234.4	127.2		125.6	6.0	23.3	300.2	160.6	3.5
1932	24.1	309.7	4.5	10.4	265.8	855.4		144.2	2.6	2.3	243.0	141.4	2.8
1933	23.2	330.6	0.9	9.1	236.0	436.0		133.4	1.7	1.9	154.9	129.8	1.7
1934	12.3	384.2	1.0	9.7	224.8	130.4		105.1	1.1	4.6	129.5	123.6	2.6
1935	12.8	234.7	0.3	7.0	265.9	1,565.8		91.9	2.2	12.2	127.1	126.2	2.2
1936	13.0	248.5	0.6	5.6	280.7	48.2		101.3	2.4	3.0	125.7	126.9	2.6
1937	16.4	483.2	3.0	4.7	222.6	119.9		126.1	1.7	8.2	169.7	137.8	4.8
1938	12.0	354.9	5.3	5.5	281.5	1,534.8		122.5	1.3	1.1	283.8	136.2	6.6
1939	8.7	303.7	7.1	3.4	172.5	248.3		117.3	0.9	17.3	252.0	122.0	5.5
1940	5.0	197.2	1.4	2.3	223.7	384.4		115.3	0.9	23.4	190.2	145.5	4.1
1941	4.5	161.0	2.1	2.7	303.7	1,301.1		98.8	0.9	5.0	209.1	161.2	6.6
1942	4.4	135.5	0.3	1.3	209.5	154.7		103.3	1.2	2.9	225.0	158.0	5.0
1943	5.2	93.8	0.3	2.1	224.8	962.6		121.7	14.1	4.7	296.3	177.1	4.8
1944	7.8	166.7	0.2	1.5	75.3	496.7		119.4	15.9	16.4	321.5	222.9	3.4
1945	11.6	171.2	0.3	1.1	98.2	116.4	2.5	100.7	5.0	4.0	295.2	231.2	4.5
1946	6.7	104.7	0.1	1.5	142.2	740.3	0.6	97.2	3.2	19.1	316.2	221.3	3.6
1947	3.9	79.6	0.0	1.3	172.5	157.8	0.2	106.6	1.9	10.6	251.7	181.1	3.6
1948	2.0	95.8	0	0.8	43.1	693.3	0.1	98.6	1.7	12.5	195.3	152.5	7.5
1949	1.9	139.4	0	0.8	65.4	319.3	0.4	93.7	1.9	45.8	137.6	148.4	5.3
1950	1.3	73.2	0	0.7	144.1	600.2	0.8	86.9	2.1	31.8	138.6	136.2	3.2
1951	0.7	125.0	0	0.5	48.2	232.7	5.0	93.9	2.1	22.4	99.8	129.8	2.9
1952	0.7	124.1	0	0.8	29.7	491.1	4.2	91.7	2.5	58.3	110.0	114.7	0.9
1953	0.2	85.9	0	0.5	42.8	340.5	12.7	82.4	2.2	34.2	82.0	128.3	0.6
1954	0.8	73.2	0	0.4	80.0	579.8	20.2	82.1	2.1	30.9	66.7	141.5	0.7
1955	0.8	81.3	0	0.3	58.7	330.0	17.2	75.8	2.3	18.3	67.2	142.4	0.8
1956	2.9	97.8	0	0.7	25.4	558.4	10.8	73.4	2.4	8.7	63.7	127.7	0.7
1957	1.7	92.2	0	0.2	17.5	244.4	8.4	64.2	2.2	6.4	58.6	108.0	1.2
1958	0.1	68.4	0	0.2	15.7	526.9	8.7	71.0	2.9	15.6	54.2	109.6	2.3
1959	0.0	118.7	0	0.1	37.7	153.7	14.3	59.6	1.8	5.6	43.0	100.9	1.7
1960	0.1	118.7	0	0.2	14.4	462.2	27.0	52.8	2.2	1.1	46.6	107.0	1.4
1961	0.0	105.6	0	0.1	8.1	371.9	58.3	48.6	3.2	0.5	41.9	120.3	1.3
1962	0.1	102.2	0	0.2	22.1	318.7	41.3	43.8	1.8	0.3	54.6	146.8	0.9
1963	0.1	149.0	0	0.2	17.6	607.1	33.1	41.1	1.3	0.2	68.6	137.5	1.2
1964	0.0	212.7	0	0.2	11.8	381.4	30.5	37.6	1.0	0.0	64.4	148.5	1.3
1965	0	178.3	0	0.1	7.5	343.1	32.0	37.4	1.3	0.0	68.8	174.6	1.2
1966	0.0	166.7	0	0.1	7.9	183.4	31.1	39.2	1.6	0.0	70.3	185.5	1.4
1967	0.0	154.0	0	0.1	12.3	12.2	22.2	34.2	0.9	0.0	64.8	198.4	0.9
1968	0	116.4	0	0.0	4.9	4.1	27.2	30.2	1.1	0.0	61.7	209.3	1.2
1969	0	111.8	0	0.1	2.2	4.6	38.5	24.4	1.3	0.0	43.6	212.2	1.2
1970	0	133.7	0	0.2	2.2	20.7	51.8	22.4	0.8	0.0	44.2	229.4	1.3
1971	0.0	125.0	0	0.1	1.6	29.6	53.7	19.9	0.7	0	53.4	247.4	1.0

Note: Meningococcal infections - Prior to 1952 data were for meningococcal meningitis. Tuberculosis, syphilis, gonorrhea and chancroid are resident rates.

Michigan Center for Health Statistics  
Michigan Department of Public Health

TABLE 4.5

NUMBER OF DEATHS AND DEATH RATES FOR CERTAIN COMMUNICABLE DISEASES  
MICHIGAN RESIDENTS, 1900-1971  
(Rates per 100,000 Population)

Year	Diphtheria		Scarlet Fever and Strep. Sore Throat		Smallpox		Typhoid Fever		Whooping Cough		Measles		Tuberculosis of the Respiratory System		Tuberculosis (all forms)		Poliomyelitis		Syphilis*		Gonorrhea	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
1900	529	21.9	272	11.2	9	0.4	869	35.9	208	8.6	342	14.1	2,018	83.4	2,500	103.3						
1901	502	20.4	312	12.7	27	1.1	645	26.2	163	6.6	79	3.2	2,152	87.5	2,548	103.6			88	3.6		
1902	504	20.2	277	11.1	42	1.7	608	24.3	289	11.6	238	9.5	2,088	83.6	2,462	98.5			114	4.6		
1903	686	27.0	200	7.9	29	1.1	606	23.9	383	15.1	176	6.9	2,155	84.9	2,562	101.0			130	5.2		
1904	515	20.0	210	8.1	26	1.0	641	24.9	148	5.7	194	7.5	2,306	89.5	2,761	107.2			101	4.0		
1905	478	18.3	123	4.7	74	2.8	636	24.3	131	5.0	223	4.7	2,288	87.5	2,732	104.4			89	3.5		
1906	472	17.8	227	8.6	3	0.1	721	27.2	469	17.7	151	9.5	2,303	86.8	2,737	103.1			89	3.4		
1907	421	15.6	159	5.9	8	0.3	594	22.1	223	8.3	256	9.5	2,338	86.8	2,728	101.3			94	3.6		
1908	343	12.6	194	7.1	11	0.4	687	25.1	305	11.2	121	4.4	2,249	82.3	2,706	99.0			118	4.5		
1909	395	14.3	275	9.9	4	0.1	653	23.6	217	7.8	270	9.7	2,237	80.7	2,629	94.9			127	4.8		
1910	465	17.6	297	10.6	121	4.3	654	23.3	318	11.3	251	8.9	2,273	80.9	2,756	98.1	52	1.9	65	2.3		
1911	473	16.3	208	7.2	7	0.2	551	19.0	254	8.8	200	6.9	2,284	78.9	2,766	95.5	55	1.9	104	3.6		
1912	465	15.6	186	6.2	3	0.1	534	17.9	252	8.5	118	4.0	2,289	76.8	2,744	92.0	48	1.7	90	3.1		
1913	676	22.0	283	9.2	5	0.2	538	17.5	292	9.5	258	8.4	2,243	73.1	2,703	88.1	43	1.5	136	4.6		
1914	507	16.1	177	5.6	2	0.1	400	12.7	304	9.6	180	5.7	2,325	73.7	2,799	88.8	41	1.4	160	5.3		
1915	354	10.9	107	3.3	5	0.2	353	10.9	236	7.3	101	3.1	2,527	78.0	2,986	92.2	36	1.2	163	5.3		
1916	507	15.2	177	5.3	2	0.1	424	12.8	228	6.9	363	10.9	2,573	77.4	3,070	92.3	141	4.6	206	6.7		
1917	851	24.9	340	10.0	9	0.3	386	11.3	360	10.6	259	7.6	2,779	81.5	3,310	97.0	44	1.4	224	7.1		
1918	686	19.6	181	5.2	18	0.5	337	9.6	496	14.2	270	7.7	3,059	87.5	3,612	103.3	58	1.8	290	9.1		
1919	764	21.3	179	5.0	10	0.3	272	7.6	172	4.8	183	5.1	2,620	73.1	3,127	87.3	80	2.2	299	8.2		
1920	888	24.2	305	8.3	14	0.4	297	8.1	511	13.9	436	11.9	2,645	72.1	3,149	85.8	30	0.8	314	8.4		
1921	954	25.2	334	8.8	12	0.3	285	7.5	316	8.3	58	1.5	2,285	60.4	2,736	72.3	100	2.6	226	5.9	14	0.4
1922	620	15.9	217	5.6	20	0.5	192	4.9	232	5.9	232	5.9	2,232	57.2	2,654	68.0	21	0.5	186	4.7	6	0.2
1923	675	16.8	304	7.6	13	0.3	202	5.0	323	8.0	258	6.4	2,410	59.9	2,837	70.6	18	0.5	262	6.8	5	0.1
1924	470	11.4	265	6.4	226	5.5	149	3.6	169	4.1	221	5.3	2,474	59.8	2,952	71.3	116	3.0	271	7.0	13	0.3
1925	358	8.4	208	4.9	22	0.5	157	3.7	260	6.1	69	1.6	2,410	56.6	2,830	66.5	31	0.7	282	6.6	27	0.6
1926	677	15.5	235	5.4	4	0.1	119	2.7	355	8.1	577	13.2	2,601	59.5	3,041	69.5	34	0.8	327	7.5	12	0.3
1927	516	11.5	168	3.7	-	0	94	2.1	201	4.5	67	1.5	2,514	56.0	2,952	65.7	69	1.5	305	6.8	16	0.4
1928	384	8.3	178	3.9	2	0.0	83	1.8	219	4.8	303	6.6	2,647	57.4	3,108	67.5	27	0.6	384	8.4	19	0.4
1929	498	10.5	145	3.1	9	0.2	81	1.7	255	5.4	146	3.1	2,685	56.8	3,140	66.5	50	1.1	397	8.4	19	0.4
1930	299	6.2	130	2.7	9	0.2	87	1.8	176	3.6	231	4.8	2,443	50.5	2,912	60.1	39	0.8	395	8.2	12	0.2
1931	172	3.5	122	2.5	4	0.1	73	1.5	190	3.9	28	0.6	2,283	46.3	2,660	54.5	108	2.2	361	7.4	3	0.1
1932	106	2.2	112	2.3	1	0.0	56	1.1	199	4.0	183	3.7	2,101	42.7	2,463	50.0	23	0.5	377	7.7	2	0.0
1933	112	2.3	157	3.2	-	0	50	1.0	153	3.1	111	2.2	1,996	40.2	2,348	47.3	5	0.1	327	6.6	7	0.1
1934	38	0.8	171	3.4	-	0	65	1.3	141	2.8	36	0.7	1,909	38.1	2,199	43.9	25	0.5	402	8.0	10	0.2
1935	58	1.1	98	1.9	-	0	34	0.7	132	2.6	184	3.6	1,741	34.5	2,044	40.5	32	0.6	393	7.8	3	0.1
1936	52	1.0	114	2.2	-	0	37	0.7	107	2.1	12	0.2	1,816	35.7	2,100	41.3	21	0.4	394	7.7	6	0.1
1937	72	1.4	148	2.9	1	0.0	29	0.6	132	2.6	11	0.2	1,860	36.2	2,119	41.3	51	1.0	401	7.8	8	0.2
1938	44	0.9	87	1.7	-	0	23	0.4	116	2.2	100	1.9	1,633	31.6	1,866	36.1	10	0.2	401	7.8	8	0.2
1939	25	0.5	69	1.3	-	0	25	0.5	76	1.5	29	0.6	1,651	31.7	1,881	36.1	40	0.8	389	7.5	4	0.1
1940	20	0.4	41	0.8	1	0.0	11	0.2	59	1.1	19	0.4	1,547	29.4	1,752	33.3	72	1.4	591	11.2	3	0.0
1941	18	0.3	32	0.6	1	0.0	14	0.3	91	1.7	65	1.2	1,532	28.2	1,723	31.7	18	0.3	537	9.9	1	0.0
1942	24	0.4	23	0.4	-	0	5	0.1	72	1.3	8	0.1	1,630	29.4	1,827	33.0	10	0.2	559	10.1	7	0.1
1943	21	0.4	11	0.2	-	0	9	0.2	101	1.9	89	1.7	1,588	29.5	1,802	33.5	27	0.5	579	10.8	3	0.0
1944	32	0.6	7	0.1	1	0.0	7	0.1	33	0.6	49	0.9	1,544	28.7	1,748	32.5	45	0.8	543	10.1	2	0.0
1945	46	0.8	9	0.2	-	0	3	0.1	36	0.7	10	0.2	1,591	29.3	1,758	32.3	20	0.4	527	9.7	2	0.0
1946	27	0.5	3	0.1	-	0	6	0.1	44	0.8	47	0.8	1,645	28.8	1,843	32.3	89	1.6	547	9.6	-	0
1947	23	0.4	6	0.1	-	0	5	0.1	63	1.0	5	0.1	1,483	24.4	1,643	27.1	29	0.5	502	8.3	3	0.0
1948	8	0.1	1	0.0	-	0	4	0.1	9	0.1	43	0.7	1,395	22.5	1,561	25.2	54	0.9	512	8.3	-	0
1949	11	0.2	4	0.1	-	0	1	0.0	22	0.3	33	0.5	1,254	19.7	1,400	22.0	216	3.4	455	7.2	-	0
1950	2	0.0	1	0.0	-	0	5	0.1	28	0.4	28	0.4	1,134	17.8	1,270	19.9	128	2.0	325	5.1	1	0.0
1951	6	0.1	-	0	-	0	1	0.0	21	0.3	11	0.2	1,049	16.0	1,154	17.6	67	1.0	299	4.6	1	0.0
1952	2	0.0	-	0	-	0	-	0	8	0.1	17	0.3	689	10.3	775	11.6	213	3.2	174	2.6	2	0.0
1953	2	0.0	1	0.0	-	0	-	0	11	0.2	16	0.2	536	7.8	607	8.9	108	1.6	182	2.7	1	0.0
1954	3	0.0	3	0.0	-	0	-	0	17	0.2	17	0.2	471	6.7	530	7.5	89	1.3	139	2.0	2	0.0
1955	1	0.0	1	0.0	-	0	1	0.0	8	0.1	10	0.1	435	6.0	477	6.6	32	0.4	115	1.6	1	0.0
1956	6	0.1	3	0.0	-	0	-	0	6	0.1	26	0.3	426	5.7	466	6.2	22	0.3	114	1.5	4	0.1
1957	1	0.0	-	0	-	0	-	0	6	0.1	23	0.3	403	5.2	442	5.7	15	0.2	105	1.3	4	0.1
1958	-	0	-	0	-	0	-	0	1	0.0	18	0.2	357	4.5	395	5.0	37	0.5	84	1.1	8	0.1
1959	1	0.0	2	0.0	-	0	1	0.0	5	0.1	11	0.1	335	4.2	370	4.6	17	0.2	84	1.1	4	0.1
1960	2	0.0	1	0.0	-	0	-	0	1	0.0	17	0.2	364	4.7	390	5.0	4	0.1	79	1.0	7	0.1
1961	1	0.0	1	0.0	-	0	-	0	2	0.0	13	0.2	307	3.9	332	4.2	-	0	71	0.9	7	0.1
1962	2	0.0	1	0.0	-	0	-	0	2	0.0	8	0.1	307	3.9	331	4.2	2	0.0	94	1.2	3	0.0
1963	-	0	-	0	-	0	-	0	-	0	27	0.2	276	3.4	299	3.7	1	0.0	72	0.9	1	0.0
1964	-	0	-	0	-	0	-	0	2	0.0	11	0.1	288	3.6	315	3.9	1	0.0	66	0.8	3	0.0
1965	-	0	-	0	-	0	-	0														



TABLE 4.6

NUMBER OF DEATHS AND DEATH RATES BY SPECIFIED CAUSES  
MICHIGAN RESIDENTS, 1900-1971  
(Rates per 100,000 Population)

Year	Heart Disease		Cancer (all forms)		Vascular Lesions Affecting Central Nervous System <sup>1</sup>		Accidents (all forms) <sup>2</sup>		Motor Vehicle Accidents		Diabetes		Pneumonia <sup>3</sup>		Immaturity		General Arteriosclerosis <sup>4</sup>	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
1900	2,836	117.1	1,460	60.3	2,136	88.2	1,740	71.9			224	9.3	2,388	98.6	620	25.6		
1901	3,040	123.6	1,484	60.3	2,147	87.3	1,901	77.3			264	10.7	2,901	117.9	524	21.3		
1902	3,302	132.1	1,483	59.3	2,097	83.9	1,796	71.9			289	11.6	2,637	105.5	608	24.3		
1903	3,702	145.9	1,694	66.8	2,321	91.5	2,017	79.5			265	10.4	2,607	102.7	542	21.4		
1904	3,981	154.5	1,728	67.1	2,431	94.3	2,035	79.0			298	11.6	2,646	102.7	632	24.5		
1905	3,715	142.0	1,693	64.7	2,405	91.9	2,034	77.8			267	10.2	2,417	92.4	751	28.7		
1906	3,933	148.2	1,736	65.4	2,554	96.2	2,126	80.1			311	11.7	2,621	98.7	830	31.3		
1907	4,269	158.5	1,747	64.9	2,690	99.9	2,209	82.0			352	13.1	3,018	112.0	855	31.7		
1908	4,202	153.8	1,921	70.3	2,630	96.3	2,036	74.5			359	13.1	2,313	84.7	975	35.7		
1909	4,354	157.1	1,948	70.3	2,739	98.8	1,903	68.7			374	13.5	2,265	81.7	1,152	41.6		
1910	4,581	163.0	2,105	74.9	3,091	110.0	2,158	76.8	49	1.7	398	14.2	2,785	99.1	2,050	72.9		
1911	4,639	160.2	2,142	74.0	2,916	100.7	2,121	73.2	44	1.5	373	12.9	2,763	95.4	2,223	76.8		
1912	5,324	178.5	2,291	76.8	2,707	90.8	2,005	67.2	75	2.5	448	15.0	2,796	93.8	2,340	78.5		
1913	4,908	160.0	2,388	77.8	2,834	92.4	2,333	76.1	132	4.3	483	15.7	3,082	100.5	2,480	80.8		
1914	5,124	162.5	2,414	76.6	2,993	94.9	2,108	66.8	130	3.8	503	16.0	2,909	92.2	2,391	75.8		
1915	5,538	171.0	2,567	79.2	3,384	104.5	2,219	68.5	190	5.9	498	15.4	3,229	99.7	2,207	68.1		
1916	5,819	175.0	2,710	81.5	3,559	107.0	2,853	85.8	257	7.7	500	15.0	3,698	111.2	2,498	75.1		
1917	6,103	178.9	2,765	81.1	3,703	108.6	2,925	85.8	335	9.8	569	16.7	4,455	130.6	2,369	69.5		
1918	6,091	174.2	2,931	83.8	3,493	99.9	2,599	74.3	279	8.0	591	16.9	4,238	127.0	2,362	67.5		
1919	5,651	157.7	2,990	83.5	3,483	97.2	2,612	72.9	328	9.2	559	15.6	4,081	113.9	2,183	60.9		
1920	6,732	183.5	3,158	86.1	3,876	105.7	2,646	72.1	397	10.8	577	15.7	5,794	157.9	2,512	68.5		
1921	6,176	163.1	3,373	89.1	3,931	103.8	2,476	65.4	403	10.6	586	15.5	2,849	75.3	2,487	65.5		
1922	6,897	176.7	3,481	89.2	4,041	103.5	2,475	63.4	529	13.6	650	16.7	3,728	95.5	1,793	45.9		
1923	7,266	180.7	3,545	88.2	4,420	109.9	2,826	70.3	677	16.8	635	15.8	4,719	117.4	1,911	47.5		
1924	6,985	168.8	3,824	92.4	4,241	102.5	3,090	74.7	1,001	24.2	661	16.0	3,332	80.5	1,970	47.6		
1925	7,540	177.2	3,858	90.7	4,623	108.6	3,278	77.0	1,103	25.9	746	17.5	3,296	77.4	1,987	46.7		
1926	8,281	189.4	4,087	93.5	4,663	106.6	3,557	81.3	1,221	27.9	743	17.0	4,440	101.5	1,986	45.4		
1927	8,780	195.5	4,264	95.0	4,378	97.5	3,634	80.9	1,389	30.9	819	18.2	3,543	78.9	1,911	42.6		
1928	9,786	212.4	4,381	95.1	4,718	102.4	3,704	80.4	1,429	31.0	905	19.6	4,518	98.1	1,846	40.1		
1929	10,185	215.6	4,571	96.7	4,694	99.3	3,913	82.8	1,552	32.8	935	19.8	4,216	89.2	1,853	39.2		
1930	9,947	205.4	4,572	94.4	4,533	93.6	3,805	78.6	1,572	32.5	880	18.2	3,321	68.6	1,805	37.3	1,047	21.6
1931	10,206	209.0	4,763	97.5	4,388	89.8	3,630	74.3	1,516	31.0	950	19.5	2,883	59.0	1,473	30.2	1,005	20.6
1932	11,162	226.6	4,935	100.2	4,518	91.7	3,179	64.5	1,229	25.0	1,121	22.8	3,238	65.7	1,372	27.9	948	19.2
1933	11,509	231.7	5,055	101.8	4,318	86.9	3,304	66.5	1,278	25.7	1,103	22.2	2,756	55.5	1,364	27.5	966	19.5
1934	11,824	236.1	5,370	107.2	4,485	89.6	3,774	75.4	1,511	30.2	1,100	22.0	3,466	69.2	1,419	28.3	914	18.3
1935	12,456	246.7	5,399	106.9	4,420	87.5	3,771	74.7	1,676	33.2	1,228	24.3	3,801	75.3	1,389	27.5	897	17.8
1936	13,374	262.7	5,752	113.0	4,705	92.4	3,246	103.1	1,924	37.8	1,266	24.9	4,096	80.5	1,395	27.4	997	19.6
1937	13,273	257.8	5,732	111.7	4,378	85.3	4,580	89.2	2,187	42.6	1,255	24.5	4,098	79.8	1,415	27.6	1,158	22.8
1938	13,887	268.4	6,059	117.1	4,543	87.8	3,608	69.7	1,490	28.8	1,283	24.8	2,869	55.5	1,484	28.7	869	16.8
1939	14,898	285.7	6,296	120.7	4,415	84.7	3,761	72.1	1,553	29.8	1,360	26.1	2,803	53.8	1,396	26.8	918	17.6
1940	15,480	294.5	6,513	123.9	4,690	89.2	3,961	75.4	1,743	33.2	1,408	26.8	2,478	47.1	1,298	24.7	941	17.9
1941	15,761	289.8	6,551	120.5	4,698	86.4	4,450	81.8	2,156	39.6	1,382	25.4	2,235	41.1	1,353	24.9	906	16.7
1942	16,016	289.2	6,646	120.0	4,841	87.4	3,685	66.5	1,368	24.7	1,448	26.1	2,349	42.4	1,575	28.4	1,015	18.3
1943	17,816	331.3	7,127	132.5	5,111	98.8	3,480	64.7	1,025	19.1	1,535	28.5	2,931	56.5	1,488	27.7	1,092	20.3
1944	17,004	316.2	7,277	135.3	4,954	92.1	3,350	62.3	1,103	20.5	1,554	28.9	2,369	44.1	1,412	26.3	980	18.2
1945	17,621	320.5	7,486	137.7	5,295	97.4	3,432	63.1	1,199	22.1	1,561	28.7	1,932	35.5	1,339	24.6	970	17.8
1946	17,691	309.9	7,845	137.4	5,224	91.5	3,776	66.1	1,506	26.4	1,530	26.8	1,891	33.1	1,735	30.4	933	16.3
1947	18,412	303.4	8,188	134.9	5,426	89.4	3,848	63.4	1,499	24.7	1,618	26.7	2,089	34.4	1,953	32.2	1,031	17.0
1948	18,726	302.3	8,336	134.6	5,272	85.1	4,017	64.8	1,545	24.9	1,771	28.6	1,853	29.9	1,820	29.4	1,085	17.5
1949	19,137	301.3	8,697	136.9	5,438	85.6	3,838	60.4	1,493	23.5	1,884	29.7	1,885	29.7	1,795	28.3	1,135	17.9
1950	20,521	322.1	8,685	136.3	6,376	100.1	3,783	59.4	1,680	26.4	1,438	22.6	1,358	21.3	1,096	17.2	1,296	20.3
1951	21,118	322.6	9,187	140.4	6,579	100.5	3,916	59.8	1,806	27.6	1,374	21.0	1,619	24.7	1,232	18.8	1,312	20.0
1952	21,247	316.8	9,256	138.0	6,521	97.2	3,901	58.2	1,815	27.1	1,339	20.0	1,571	23.4	1,256	18.7	1,294	19.3
1953	22,425	327.3	9,904	144.5	7,045	102.8	4,375	63.8	2,051	29.9	1,419	20.7	1,538	22.4	1,114	16.3	1,270	18.5
1954	22,362	318.4	10,105	143.9	6,964	99.1	3,948	56.2	1,916	27.3	1,469	20.9	1,380	19.6	1,298	18.5	1,170	16.7
1955	23,440	323.9	10,297	142.3	7,362	101.7	4,213	58.2	2,129	29.4	1,415	19.6	1,538	21.3	1,272	17.6	1,237	17.1
1956	24,681	328.1	10,489	139.6	7,114	96.7	3,925	52.2	1,826	24.3	1,443	19.2	1,723	22.9	1,344	16.6	1,251	16.6
1957	25,369	325.1	10,810	138.5	7,632	97.8	3,643	46.7	1,680	21.5	1,510	19.4	2,045	26.2	1,222	16.9	1,248	16.0
1958	25,215	320.6	10,946	139.2	7,547	95.9	3,306	42.0	1,466	18.6	1,595	20.3	2,076	26.4	1,208	15.4	1,300	16.5
1959	25,323	318.1	11,113	139.6	7,700	96.7	3,666	46.1	1,587	19.9	1,715	21.5	1,810	22.7	1,201	15.1	1,403	17.6
1960	25,728	328.9	11,331	144.8	7,682	98.2	3,688	47.1	1,710	21.9	1,784	22.8	2,002	25.6	1,148	14.7	1,352	17.3
1961	25,519	322.9	11,476	145.2	7,745	98.0	3,692	46.7	1,656	21.0	1,778	22.5	1,692	21.4	1,003	12.7	1,448	18.3
1962	27,226	342.9	11,752	148.0	7,783	98.0	3,758	47.3	1,668	21.0	1,908	24.0	1,824	23.0	907	11.4	1,477	18.6
1963	27,483	342.3	12,078	150.4	8,168	101.7	4,033	50.2	2,005	25.0	2,049	25.5	1,995	24.8	816	10.2	1,652	20.6
1964	27,496	339.5	12,087	149.2	7,940	98.0	4,416	54.5	2,286	28.2	2,055	25.4	1,714	21.2	807	10.0	1,559	19.2
1965	28,134	343.1	12,419	151.5	7,769	94.8	4,494	54.8	2,271	27.7	2,153	26.3	1,987	24.2	768	9.4	1,726	21.1
1966	28,277	340.1	12,506	150.4	7,732	93.0	4,737	57.0	2,407	29.0	2,243	27.0	2,02					

TABLE 4.7  
POPULATION CHANGES BY COUNTY  
MICHIGAN RESIDENTS, 1971

AREA	Estimates July 1, 1961	Estimates July 1, 1971	Percent Change	Natural Increases	Net Migration
STATE	7,903,000	8,996,000	13.8	966,713	126,287
Alcona	6,400	7,600	18.8	224	976
Alger	9,300	8,500	-8.6	379	-1,179
Allegan	58,700	68,300	16.4	6,676	2,924
Alpena	29,000	31,800	9.7	3,432	-632
Antrim	10,400	13,400	28.8	497	2,503
Arenac	9,900	11,700	18.2	620	1,180
Baraga	7,300	7,700	5.5	517	-117
Barry	30,500	39,000	27.9	3,320	5,180
Bay	108,400	118,700	9.5	13,742	-3,442
Benzie	7,900	8,600	8.9	382	318
Berrien	152,200	164,900	8.3	19,400	-6,700
Branch	35,100	38,700	10.3	2,516	1,084
Calhoun	139,400	140,600	0.9	14,983	-13,783
Cass	36,900	43,300	17.3	3,095	3,305
Charlevoix	13,700	17,200	25.5	1,117	2,383
Cheboygan	15,000	17,300	15.3	1,261	1,039
Chippewa	34,600	33,300	-3.8	5,829	-7,129
Clare	12,400	17,600	41.9	980	4,220
Clinton	38,800	48,800	25.8	6,280	3,720
Crawford	5,300	6,800	28.3	402	1,098
Delta	35,000	36,900	5.4	2,599	-699
Dickinson	24,300	24,000	-1.2	818	-1,118
Eaton	50,400	70,500	39.9	6,753	13,347
Emmet	16,100	19,300	19.9	1,386	1,814
Genesee	381,900	450,000	17.8	65,531	2,569
Gladwin	11,000	14,100	28.2	736	2,364
Gogebic	24,600	20,600	-16.3	-262	-3,738
Grand Traverse	34,000	40,700	19.7	3,375	3,325
Gratiot	37,000	39,900	7.8	4,617	-1,717
Hillsdale	34,900	38,300	9.7	2,987	413
Houghton	35,400	35,800	1.1	709	-309
Huron	34,100	35,200	3.2	2,748	-1,648
Ingham	214,000	264,000	23.4	36,029	13,971
Ionia	44,800	47,000	4.9	4,406	-2,206
Iosco	19,800	26,600	34.3	4,344	2,456
Iron	17,400	13,700	-21.3	-337	-3,363
Isabella	36,200	46,600	28.7	4,956	5,444
Jackson	132,900	143,700	8.1	14,048	-3,248
Kalamazoo	172,400	201,800	17.1	21,784	7,616
Kalamazoo	4,400	5,800	31.8	215	1,185
Kent	370,500	413,500	11.6	47,026	-4,026
Keeweenaw	2,500	2,500	0.0	-91	91
Lake	5,400	6,200	14.8	-155	955
Lapeer	42,400	54,400	28.3	5,690	6,310
Leelanau	9,600	10,900	13.5	549	751
Lenawee	76,700	82,800	8.0	7,998	-1,898
Livingston	38,700	61,800	59.7	5,294	17,806
Luce	7,900	7,300	-7.6	232	-832
Mackinac	11,200	10,100	-9.8	900	-2,000
Macomb	424,700	638,200	50.3	92,746	120,754
Manistee	19,200	21,100	9.9	1,104	796
Marquette	57,900	67,000	15.7	7,753	1,347
Mason	22,100	23,900	8.1	1,098	702
Mecosta	21,200	29,100	37.3	2,443	5,457
Menominee	24,900	25,000	0.4	1,141	-1,041
Midland	53,100	65,000	22.4	9,471	2,429
Missaukee	6,900	7,900	14.5	274	726
Monroe	102,600	121,900	18.8	14,193	5,107
Montcalm	36,500	40,600	11.2	3,411	689
Montmorency	4,400	5,400	22.7	44	956
Muskegon	151,400	159,000	5.0	19,316	-11,716
Neewasgo	24,700	28,400	15.0	2,158	1,542
Oakland	700,800	920,100	31.3	106,468	112,832
Oceana	16,600	18,700	12.7	1,292	808
Ogemaw	9,600	12,300	28.1	307	2,393
Ontonagon	10,900	10,800	-0.9	577	-677
Osceola	13,800	15,900	15.2	1,066	1,034
Osceola	3,600	4,900	36.1	124	1,176
Otsego	8,000	10,900	36.3	1,077	1,823
Ottawa	99,900	129,800	29.9	15,462	14,438
Presque Isle	13,200	13,100	-0.8	1,091	-1,191
Roscommon	7,500	10,900	45.3	-52	3,452
Saginaw	192,900	223,900	16.1	29,615	1,385
St. Clair	107,500	125,000	16.3	11,113	6,387
St. Joseph	42,400	48,000	13.2	3,924	1,676
Sanilac	32,500	36,200	11.4	2,484	1,216
Schoolcraft	9,000	8,400	-6.7	445	-1,045
Shiawassee	54,600	65,300	19.6	7,665	3,055
Tuscola	43,600	49,900	14.4	4,739	1,561
Van Buren	49,000	58,000	18.4	4,270	4,730
Washtenaw	176,400	235,800	33.7	29,800	29,600
Wayne	2,658,300	2,678,300	0.8	258,169	-236,169
Wexford	18,600	20,200	8.6	1,408	192

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

TABLE 4.8

Population by Age and Sex  
Michigan Residents - 1971

AGE	TOTAL	%	MALES	%	FEMALES	%
0 - 4	810,540	9.01	413,425	9.39	397,310	8.65
5 - 9	906,797	10.08	462,296	10.50	444,160	9.67
10 - 14	982,363	10.92	500,601	11.37	482,284	10.50
15 - 19	906,797	10.08	457,894	10.40	448,753	9.77
20 - 24	737,672	8.20	341,219	7.75	396,391	8.63
25 - 29	609,029	6.77	300,272	6.82	308,662	6.72
30 - 34	502,876	5.59	248,759	5.65	254,462	5.54
35 - 39	470,491	5.23	228,506	5.19	242,060	5.27
40 - 44	520,868	5.79	255,364	5.80	265,026	5.77
45 - 49	533,463	5.93	259,766	5.90	273,754	5.96
50 - 54	484,884	5.39	234,230	5.32	250,788	5.46
55 - 59	421,013	4.68	205,612	4.67	215,420	4.69
60 - 64	340,948	3.79	163,345	3.71	177,756	3.87
65 - 69	265,382	2.95	124,160	2.82	141,011	3.07
70 - 74	203,310	2.26	88,937	2.02	114,370	2.49
75 - 79	149,334	1.66	62,520	1.42	86,811	1.89
80 - 84	94,458	1.05	36,103	0.82	57,874	1.26
85 +	55,775	0.62	19,813	0.45	36,286	0.79
TOTAL	8,996,000	100.0	4,402,822	100.0	4,593,178	100.0

TABLE 4.9  
SELECTED VITAL STATISTICS BY COUNTY  
MICHIGAN RESIDENTS, 1971

AREA	POPULATION ESTIMATES	LIVE BIRTHS	ILLEGITIMATE LIVE BIRTHS	LOW WEIGHT LIVE BIRTHS	DEATHS	INFANT DEATHS	NEONATAL DEATHS	PERINATAL DEATHS	FETAL DEATHS	MARRIAGES <sup>1</sup>	DIVORCES <sup>1</sup>
STATE	8,996,000	162,244	19,098	12,497	77,395	3,157	2,412	4,139	1,923	92,134	31,790
Alcona	7,600	111	7	7	114	1	1	2	1	81	19
Alger	8,500	132	6	9	97	2	2	5	3	82	-
Allegan	68,300	1,244	68	71	656	22	15	29	16	660	208
Alpena	31,800	535	24	32	280	10	9	12	3	332	60
Antrim	13,400	227	18	14	179	4	3	9	6	132	42
Arenac	11,700	206	13	14	144	6	6	9	4	128	21
Baraga	7,700	136	11	7	109	1	1	4	3	82	15
Barry	39,000	641	41	41	348	11	9	18	11	423	145
Bay	118,700	2,031	157	135	1,021	27	19	39	22	1,270	358
Benzie	8,600	146	11	8	103	2	1	2	1	107	40
Berrien	164,900	3,235	479	258	1,582	79	60	101	46	2,368	648
Branch	38,700	638	54	47	383	10	8	14	6	465	125
Calhoun	140,600	2,494	315	192	1,308	61	50	76	30	1,575	698
Cass	43,300	783	63	48	373	8	6	13	8	407	185
Charlevoix	17,200	275	25	25	203	8	5	8	3	164	46
Cheboygan	17,300	325	24	22	172	4	3	5	2	168	35
Chippewa	33,300	716	47	37	295	13	12	19	8	389	85
Clare	17,600	264	24	14	189	11	8	14	6	176	43
Clinton	48,800	881	42	53	325	17	12	17	6	399	106
Crawford	6,800	111	10	4	78	-	-	-	-	73	20
Delta	36,900	611	34	37	408	8	8	13	5	420	83
Dickinson	24,000	333	19	16	278	3	3	9	6	305	46
Eaton	70,500	1,224	83	92	493	20	15	23	8	602	224
Emmet	19,300	343	23	21	189	7	5	9	4	237	48
Genesee	450,000	9,091	1,228	696	3,312	194	149	248	113	4,528	1,888
Gladwin	14,100	233	19	12	147	4	3	7	4	138	36
Gogebic	20,600	292	18	12	294	8	5	8	3	392	22
Grand Traverse	40,700	751	65	30	327	15	13	20	7	326	132
Gratiot	39,900	750	34	47	379	12	9	20	11	481	126
Hillsdale	38,300	669	42	51	343	19	17	27	10	435	-
Houghton	35,800	549	20	27	485	2	1	5	5	342	61
Huron	35,200	584	36	33	432	14	12	15	5	334	51
Ingham	264,000	5,068	498	350	1,704	94	73	118	52	3,236	1,259
Ionia	47,000	912	57	60	412	20	16	20	6	484	157
Iosco	26,600	529	16	28	258	10	8	11	4	235	50
Iron	13,700	131	7	13	200	4	2	6	4	168	20
Isabella	46,600	776	56	48	295	17	13	19	7	449	106
Jackson	143,700	2,462	249	173	1,284	52	34	53	20	1,471	663
Kalamazoo	201,800	3,289	320	213	1,477	60	47	74	32	2,169	896
Kalkaska	5,800	106	9	12	80	3	2	3	1	58	17
Kent	413,500	7,204	723	445	3,496	94	74	134	69	4,665	1,592
Keeweenaw	2,500	37	3	5	43	1	1	1	-	21	6
Lake	6,200	108	9	8	107	4	3	3	-	37	1
Lapeer	54,400	1,063	44	64	444	18	15	24	10	528	180
Leelanau	10,900	161	5	7	101	2	2	5	4	86	7
Lenawee	82,800	1,558	95	94	705	28	26	41	15	967	302
Livingston	61,800	1,067	56	56	427	18	15	21	8	557	229
Lucas	7,300	93	8	5	83	2	1	1	-	88	15
Mackinac	10,100	132	15	9	126	1	1	2	1	109	20
Macomb	638,200	11,177	559	774	3,632	176	137	247	122	5,655	2,180
Manistee	21,100	323	21	27	286	6	4	11	9	212	64
Marquette	67,000	1,279	78	82	532	23	21	35	15	662	165
Mason	23,900	395	32	21	232	7	5	7	2	256	74
Mecosta	29,100	491	18	26	240	4	3	7	5	282	70
Menominee	25,000	357	14	25	294	11	11	15	4	497	40
Midland	65,000	1,269	64	70	370	22	13	24	11	618	200
Missaukee	7,900	129	9	6	112	6	6	8	2	62	9
Monroe	121,900	2,259	144	155	876	36	31	53	25	2,710	378
Montcalm	40,600	795	50	42	411	12	10	18	8	485	144
Montmorency	5,400	76	4	3	83	1	1	1	1	60	22
Muskegon	159,000	2,875	466	219	1,368	65	53	93	44	1,577	660
Newaygo	28,400	484	34	24	283	7	6	12	6	299	115
Oakland	920,100	15,408	1,141	1,091	6,155	269	206	342	160	8,416	3,686
Oceana	18,700	340	19	15	175	7	7	11	4	209	40
Ogemaw	12,300	192	16	9	162	4	4	6	2	132	38
Ontonagon	10,800	191	18	10	133	3	3	5	2	110	15
Osceola	15,900	298	22	16	180	3	3	7	4	156	1
Oscoda	4,900	69	4	2	58	1	-	-	-	66	10
Otsego	10,900	179	12	8	104	2	-	2	2	111	29
Ottawa	129,800	2,298	95	102	864	41	33	48	17	1,172	301
Presque Isle	13,100	206	9	10	122	5	2	6	4	129	30
Roscommon	10,900	142	18	11	162	5	4	6	2	108	42
Saginaw	223,900	4,581	646	347	1,807	88	71	107	44	2,389	715
St. Clair	125,000	2,311	167	207	1,279	43	33	52	20	1,281	395
St. Joseph	48,000	901	55	60	542	11	9	11	3	551	176
Sanilac	36,200	615	34	35	418	15	9	15	6	334	82
Schoolcraft	8,400	134	13	8	108	1	1	3	2	112	14
Shiawassee	65,300	1,309	84	90	558	22	17	23	15	651	228
Tuscola	49,900	955	43	70	459	12	11	32	12	479	111
Van Buren	58,000	1,071	108	56	620	22	15	29	16	629	198
Washtenaw	235,800	4,189	342	300	1,318	77	62	107	53	2,578	973
Wayne	2,678,300	49,306	9,488	4,895	26,924	1,110	813	1,452	698	25,361	9,362
Wexford	20,200	382	30	20	240	9	5	8	3	236	87
County Not Stated	-	1	1	-	-	-	-	-	-	-	-

<sup>1</sup> By County of Occurrence rather than county of residence

TABLE 4.10  
SELECTED VITAL STATISTICS RATES BY COUNTY  
MICHIGAN RESIDENTS, 1971

AREA	LIVE BIRTHS	ILLEGITIMATE LIVE BIRTHS <sup>3</sup>	LOW WEIGHT LIVE BIRTHS <sup>3</sup>	DEATHS	INFANT DEATHS	NEONATAL DEATHS	PERINATAL DEATHS	FETAL DEATHS <sup>3</sup>	MARRIAGES <sup>2</sup>	DIVORCES <sup>2</sup>
STATE	18.0	117.7	77.0	8.6	19.5	14.9	25.2	11.9	20.5	7.1
Alcona	14.6	63.1	63.1	15.0	9.0	9.0	17.9	9.0	21.3	5.0
Alger	15.5	45.5	68.2	11.4	15.2	15.2	37.0	22.7	19.3	0
Allegan	18.2	54.7	57.1	9.6	17.7	12.1	23.0	12.9	19.3	6.1
Alpena	16.8	44.9	59.8	8.8	18.7	16.8	22.3	5.6	20.9	3.8
Antrim	16.9	79.3	61.7	13.4	17.6	13.2	38.6	26.4	19.7	6.3
Arenac	17.6	63.1	68.0	12.3	29.1	29.1	42.9	19.4	21.9	3.6
Baraga	17.7	80.9	51.5	14.2	7.4	7.4	28.8	22.1	21.3	3.9
Barry	16.4	64.0	64.0	8.9	17.2	14.0	27.6	17.2	21.7	7.4
Bay	17.1	77.3	66.5	8.6	13.3	9.4	19.0	10.8	21.4	6.0
Benzie	17.0	75.3	54.8	12.0	13.7	6.8	13.6	6.8	24.9	9.3
Berrien	19.6	148.1	79.8	9.6	24.4	18.5	30.8	14.2	28.7	7.9
Branch	16.5	84.6	73.7	9.9	15.7	12.5	21.7	9.4	24.0	6.5
Calhoun	17.7	126.3	77.0	9.3	24.5	20.0	30.1	12.0	22.4	9.9
Cass	18.1	80.5	61.3	8.6	10.2	7.7	16.4	10.2	18.8	8.5
Charlevoix	16.0	90.9	90.9	11.8	29.1	18.2	28.8	10.9	19.1	5.3
Cheboygan	18.8	73.8	67.7	9.9	12.3	9.2	15.3	6.2	19.4	4.0
Chippewa	21.5	65.6	51.7	8.9	18.2	16.8	26.2	11.2	23.4	5.1
Clare	15.0	90.9	53.0	10.7	41.7	30.3	51.9	22.7	20.0	4.9
Clinton	18.1	47.7	60.2	6.7	19.3	13.6	19.2	6.8	16.4	4.3
Crawford	16.3	90.1	36.0	11.5	0	0	0	0	21.5	5.9
Delta	16.6	55.6	60.6	11.1	13.1	13.1	21.1	8.2	22.8	4.5
Dickinson	13.9	57.1	48.0	11.6	9.0	9.0	26.5	18.0	25.4	3.8
Eaton	17.4	67.8	75.2	7.0	16.3	12.3	18.7	6.5	17.1	6.4
Emmet	17.8	67.1	61.2	9.8	20.4	14.6	25.9	11.7	24.6	5.0
Genesee	20.2	135.1	76.6	7.4	21.3	16.4	26.9	12.4	20.1	8.4
Gladwin	16.5	81.5	51.5	10.4	17.2	12.9	29.5	17.2	19.6	5.1
Gogebic	14.2	61.6	41.1	14.3	27.4	17.1	27.1	10.3	38.1	2.1
Grand Traverse	18.5	86.6	39.9	8.0	20.0	17.3	26.4	9.3	25.8	6.5
Gratiot	18.8	45.3	62.7	9.5	16.0	12.0	26.3	14.7	24.1	6.3
Hillsdale	17.5	62.8	76.2	9.0	28.4	25.4	39.8	14.9	22.7	0
Houghton	15.3	36.4	49.2	13.5	3.6	1.8	9.0	9.1	19.1	3.4
Huron	16.6	61.6	56.5	12.3	24.0	20.5	25.5	8.6	19.0	2.9
Ingham	19.2	98.3	69.1	6.3	18.5	14.4	23.0	10.3	24.5	9.5
Ionia	19.4	62.5	65.8	8.8	21.9	17.5	21.8	6.6	20.6	6.7
Iosco	19.9	30.2	52.9	9.7	18.9	15.1	20.6	7.6	17.7	3.8
Iron	9.6	53.4	99.2	14.6	30.5	15.3	44.4	30.5	24.5	2.9
Isabella	16.7	72.2	61.9	6.3	21.9	16.8	24.3	9.0	19.3	4.5
Jackson	17.1	101.1	70.3	8.9	21.1	13.8	21.4	8.1	20.5	9.2
Kalamazoo	16.3	97.3	64.8	7.3	18.2	14.3	22.3	9.7	21.5	8.9
Kalkaska	18.3	84.9	113.2	13.8	28.3	18.9	28.0	9.4	20.0	5.9
Kent	17.4	100.4	61.8	8.5	13.0	10.3	18.4	9.6	22.6	7.7
Leewards	14.8	81.1	135.1	17.2	27.0	27.0	27.0	0	16.8	4.8
Lake	17.4	175.9	74.1	17.3	37.0	27.8	27.5	9.3	11.9	0.3
Lapeer	19.5	41.4	60.2	8.2	16.9	14.1	22.4	9.4	19.4	6.6
Leelanau	14.8	31.1	43.5	9.3	12.4	12.4	30.3	24.8	15.8	1.3
Lenawee	18.8	61.0	60.3	8.5	18.0	16.7	26.1	9.6	23.4	7.3
Livingston	17.3	52.5	54.4	6.9	16.9	14.1	19.5	7.5	18.0	7.4
Luce	12.7	86.0	53.8	11.4	21.5	10.8	10.8	0	24.1	4.1
Mackinac	13.1	113.6	68.2	12.5	7.6	7.6	15.0	7.6	21.6	4.0
Macomb	17.5	50.0	69.2	5.7	15.7	12.3	21.9	10.9	17.7	6.8
Manistee	15.3	65.0	83.6	13.6	18.6	12.4	33.1	27.9	20.1	6.1
Marquette	19.1	61.0	64.1	7.9	18.0	16.4	27.0	11.7	19.8	4.9
Mason	16.5	81.0	53.2	9.7	17.7	12.7	17.6	5.1	21.4	6.2
Mecosta	16.9	36.7	53.0	8.2	8.1	6.1	14.1	10.2	19.4	4.8
Menominee	14.3	39.2	70.0	11.8	30.8	30.8	41.6	11.2	39.8	3.2
Midland	19.5	50.4	55.2	5.7	17.3	10.2	18.8	8.7	19.0	6.2
Missaukee	16.3	69.8	46.5	14.2	46.5	46.5	61.1	15.5	15.7	2.3
Monroe	18.5	63.7	68.6	7.2	15.9	13.7	23.2	11.1	44.5	6.2
Montcalm	19.6	62.9	52.8	10.1	15.1	12.6	22.4	10.1	23.9	7.1
Montmorency	14.1	52.6	39.5	15.4	13.2	13.2	13.0	13.2	22.2	8.1
Muskegon	18.1	162.1	76.2	8.6	22.6	18.4	31.9	15.3	19.8	8.3
Newaygo	17.0	70.2	49.6	10.0	14.5	12.4	24.5	12.4	21.1	8.1
Oakland	16.7	74.1	70.8	6.7	17.5	13.4	22.0	10.4	18.3	8.0
Oceana	18.2	55.9	44.1	9.4	20.6	20.6	32.0	11.8	22.4	4.3
Ogemaw	15.6	83.3	46.9	13.2	20.8	20.8	30.9	10.4	21.5	6.2
Ontonagon	17.7	94.2	52.4	12.3	15.7	15.7	25.9	10.5	20.4	2.8
Oscoda	18.7	73.8	53.7	11.3	10.1	10.1	23.2	13.4	19.6	0.1
Oscoda	14.1	58.0	29.0	11.8	14.5	0	0	0	26.9	4.1
Oshtemo	16.4	67.0	44.7	9.5	11.2	0	11.0	11.2	20.4	5.3
Ottawa	17.7	41.3	44.4	6.7	17.8	14.4	20.7	7.4	18.1	4.6
Presque Isle	15.7	43.7	48.5	9.3	24.3	9.7	28.6	19.4	19.7	4.6
Roscommon	13.0	126.8	77.5	14.9	35.2	28.2	41.7	14.1	19.8	7.7
Saginaw	20.5	141.0	75.7	8.1	19.2	15.5	23.1	9.6	21.3	6.4
St. Clair	18.5	72.3	67.9	10.2	18.6	14.3	22.3	8.7	20.5	6.3
St. Joseph	18.8	61.0	66.6	11.3	12.2	10.0	12.2	3.3	23.0	7.3
Sanilac	17.0	55.3	56.9	11.5	24.4	14.6	24.2	9.8	18.5	4.5
Schoolcraft	16.0	97.0	59.7	12.9	7.5	7.5	22.1	14.9	26.7	3.3
Shiawassee	20.0	64.2	68.8	8.5	16.8	13.0	24.2	11.5	19.9	7.0
Tuscola	19.1	45.0	73.3	9.2	12.6	11.5	23.8	12.6	19.2	4.4
Van Buren	18.5	100.8	52.3	10.7	20.5	14.0	26.7	14.9	21.7	6.8
Washtenaw	17.8	81.6	71.6	5.6	18.4	14.8	25.2	12.7	21.9	8.3
Wayne	18.4	192.4	99.3	10.1	22.5	16.5	29.0	14.2	18.9	7.0
Wexford	18.9	78.5	70.7	11.9	23.6	13.1	20.8	7.9	23.4	8.6

1 - 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 live births

TABLE 4.11  
 REPORTED CASES OF CERTAIN COMMUNICABLE DISEASES BY COUNTY  
 MICHIGAN RESIDENTS, 1971

AREA	TOTAL	DIPHTHERIA	STREPTOCOCCAL SORE THROAT (INCLUDING SCARLET FEVER)	TYPHOID FEVER	WHOOPING COUGH	HEPATITIS, INFECTIONS AND SERUM	MEASLES	MENINGOCOCCAL INFECTION	POLIOMYELITIS	RHEUMATIC FEVER	TUBERCULOSIS	SYPHILIS	GONORRHEA	ALL OTHER DISEASES
STATE	98,454	1	11,244	10	140	4,828	2,659	64	-	510	1,789	4,800	22,260	50,149
Alcona	40	-	5	-	-	-	5	-	-	-	2	2	-	26
Alger	86	-	2	-	-	3	-	-	-	-	1	2	9	69
Allegan	408	-	159	-	-	86	3	-	-	4	6	7	43	100
Alpena	268	-	13	-	-	9	3	-	-	2	5	4	17	215
Antrim	15	-	-	-	-	1	-	-	-	3	2	1	7	1
Arenac	14	-	-	-	-	4	-	-	-	1	2	2	4	1
Beraga	118	-	6	-	-	-	2	-	-	3	1	4	-	102
Barry	547	-	62	-	1	38	5	-	-	2	1	-	19	419
Bay	829	-	48	-	4	34	7	-	-	17	6	7	155	551
Benzie	9	-	-	-	-	-	1	-	-	3	1	1	1	2
Berrien	2,039	-	118	-	7	14	66	-	-	6	31	59	391	1,347
Branch	230	-	3	-	1	19	4	-	-	2	1	9	87	104
Calhoun	929	-	18	-	-	138	2	1	-	5	21	49	407	302
Cass	207	-	4	-	-	31	3	-	-	3	4	8	55	85
Charlevoix	16	-	-	-	1	2	-	-	-	3	1	6	2	1
Cheboygan	122	-	19	-	-	3	4	-	-	2	1	6	12	75
Chippewa	62	-	-	-	-	1	-	-	-	3	5	12	12	29
Clare	9	-	1	-	-	1	-	-	-	2	1	3	1	-
Clinton	554	-	2	-	-	16	8	-	-	2	2	1	17	506
Crawford	85	-	8	-	-	3	2	-	-	1	-	1	1	69
Delta	215	-	87	-	2	3	1	-	-	5	11	10	20	76
Dickinson	314	-	23	-	-	7	1	-	-	1	7	2	3	270
Eaton	594	-	42	-	2	13	43	-	-	-	6	9	53	426
Emmet	21	-	-	-	-	3	-	-	-	-	3	8	6	1
Genesee	8,240	-	576	1	2	130	72	1	-	23	52	264	1,739	5,380
Gladwin	9	-	-	-	-	1	-	-	-	4	2	1	1	-
Gogebic	53	-	20	-	-	4	-	-	-	1	2	2	1	21
Grand Traverse	266	-	14	-	-	9	3	-	-	3	2	6	-	229
Gratiot	215	-	2	-	-	28	3	-	-	9	2	3	24	144
Hillsdale	51	-	1	-	-	14	-	1	-	3	2	7	21	2
Houghton	346	-	11	-	2	-	-	-	-	1	4	10	5	313
Huron	25	-	1	-	-	5	-	-	-	-	5	5	8	1
Ingham	7,198	-	3,533	-	8	183	150	2	-	5	22	100	1,122	2,073
Ionia	155	-	58	-	1	14	8	1	-	1	2	8	35	27
Iosco	738	-	457	-	-	9	6	-	-	-	3	5	3	255
Iron	164	-	82	-	-	2	-	-	-	-	2	1	5	72
Isabella	60	-	6	-	-	7	2	-	-	7	6	6	12	14
Jackson	346	-	-	-	-	103	-	2	-	1	10	61	160	9
Kalamazoo	3,817	-	176	1	3	247	7	3	-	6	23	46	1,124	2,181
Kalamazoo	63	-	5	-	-	3	3	-	-	-	1	-	2	49
Kent	3,504	-	1,492	-	8	96	93	3	-	12	57	65	1,484	194
Keweenaw	3	-	1	-	-	-	-	-	-	-	-	-	-	2
Lake	30	-	-	-	-	3	-	-	-	-	-	19	3	5
Lapeer	208	-	42	-	1	5	3	-	-	5	2	2	20	128
Leelanau	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lenawee	422	-	31	-	1	39	2	1	-	6	9	11	87	235
Livingston	511	-	11	-	-	17	84	-	-	8	2	13	24	352
Luce	8	-	-	-	-	4	-	-	-	-	-	-	1	2
Mackinac	85	-	-	-	-	7	2	-	-	-	-	4	2	70
Macomb	6,982	-	262	1	4	325	96	3	-	14	56	130	406	5,685
Manistee	48	-	-	1	-	1	16	-	-	-	1	4	25	-
Marquette	1,843	-	1,244	-	1	13	10	-	-	6	16	8	114	431
Mason	44	-	1	-	-	7	-	-	-	3	3	5	9	16
Mecosta	248	-	52	-	-	3	26	-	-	4	1	5	32	125
Menominee	183	-	10	-	-	-	3	1	-	5	5	-	4	155
Midland	1,330	-	56	-	-	67	33	-	-	1	6	4	27	1,136
Missaukee	468	-	54	-	-	3	19	-	-	2	-	1	1	388
Monroe	582	-	49	1	1	140	52	-	-	12	28	23	100	176
Montcalm	164	-	-	-	-	44	-	1	-	5	2	3	54	55
Montmorency	43	-	-	-	-	1	6	-	-	-	-	-	1	35
Muskegon	1,260	-	6	-	1	78	1	2	-	7	34	47	636	448
Newaygo	55	-	-	-	-	10	1	-	-	3	1	7	30	2
Oakland	13,188	-	493	1	10	570	529	2	-	37	149	154	1,547	9,696
Oceana	25	-	1	-	-	4	-	-	-	-	-	3	14	3
Ogemaw	73	-	7	-	-	4	1	-	-	-	-	1	5	55
Ontonagon	57	-	1	-	-	3	-	-	-	2	1	-	2	48
Osceola	9	-	-	-	-	-	-	-	-	4	-	-	5	-
Oscoda	16	-	-	-	-	-	-	-	-	-	-	-	-	16
Otsego	9	-	-	-	-	-	-	-	-	-	5	2	2	-
Ottawa	1,231	-	357	-	-	71	46	-	-	7	9	22	213	506
Presque Isle	50	-	-	-	1	2	1	-	-	-	2	6	1	37
Roscommon	64	-	2	-	-	1	2	-	-	3	3	3	2	48
Saginaw	1,703	-	54	-	1	61	8	1	-	9	43	96	641	789
St. Clair	804	-	25	1	2	33	26	2	-	17	15	11	203	469
St. Joseph	117	-	-	-	-	37	-	-	-	4	10	14	49	3
Sanilac	47	-	-	-	-	8	6	-	-	-	2	3	8	20
Schoolcraft	18	-	-	-	-	-	-	-	-	-	-	6	1	11
Shiawassee	169	-	15	-	3	32	14	1	-	4	5	11	28	56
Tuscola	145	-	2	-	-	10	2	-	-	5	3	10	26	87
Van Buren	901	1	20	-	1	54	38	1	-	11	11	34	125	605
Washtenaw	1,540	-	122	1	1	136	41	1	-	22	45	67	603	501
Wayne	29,846	-	1,222	2	70	1,728	1,072	33	-	158	1,001	3,264	10,128	11,168
Wexford	863	-	48	-	-	6	4	-	-	-	1	3	13	788
STATE HOMES	81	-	2	-	-	17	6	-	-	-	-	-	-	56

TABLE 4.12  
SELECTED CAUSES OF DEATH BY COUNTY  
MICHIGAN RESIDENTS, 1971

AREA	ALL CAUSES	DISEASES OF THE HEART	MALIGNANT NEOPLASMS	CEREBROVASCULAR DISEASE	ACCIDENTS, ALL FORMS	(MOTOR VEHICLE ACCIDENTS)	DIABETES MELLITUS	INFLUENZA & PNEUMONIA	ARTERIOSCLEROSIS	TUBERCULOSIS, ALL FORMS	ALL OTHER INFECTIVE & PARASITIC DISEASES	CIRRHOSIS OF LIVER	NEPHRITIS & NEPHROSIS	INFECTIONS OF KIDNEY	MATERNAL DEATHS, ALL FORMS	SUICIDE AND SELF-INFLICTED INJURY	HOMICIDE AND INJURY PURPOSELY INFLICTED BY OTHER PERSONS- NOT THE KILLER	RESIDUAL
STATE	77,395	30,095	13,594	7,826	4,426	2,274	2,103	2,058	1,187	173	420	1,657	268	257	32	1,119	1,091	11,089
Alcona	114	52	14	21	7	6	1	4	2	-	1	-	2	-	-	2	-	8
Alger	97	36	14	20	7	1	2	1	2	-	-	2	-	1	-	-	-	10
Allegan	656	258	115	76	42	24	18	25	10	-	6	6	1	2	-	13	3	81
Alpena	280	115	56	35	21	11	5	1	2	1	-	2	1	2	-	3	1	35
Antrim	179	83	27	29	9	5	3	6	4	1	1	1	-	-	-	2	-	13
Arenac	144	62	12	16	11	7	1	6	3	-	2	1	-	1	-	3	-	26
Baraga	109	29	20	15	4	1	8	7	1	-	-	3	1	1	-	-	-	20
Barry	348	139	55	36	27	21	8	7	9	1	2	2	2	-	1	4	-	59
Bay	1,021	413	180	134	64	41	22	12	12	3	6	19	3	8	-	11	2	132
Benzie	103	54	15	12	3	2	4	2	2	-	-	-	-	-	-	-	-	11
Berrien	1,582	558	276	173	108	51	41	48	35	6	11	31	3	8	2	28	14	240
Branch	383	131	67	54	30	15	13	11	14	-	3	3	-	1	-	4	1	51
Calhoun	1,308	491	218	142	66	26	54	40	20	2	6	24	8	1	-	18	9	209
Cass	373	145	71	34	32	24	5	12	14	-	1	2	2	2	-	8	1	44
Charlevoix	203	84	30	30	14	5	6	1	4	-	1	3	1	-	-	4	-	25
Cheboygan	172	78	36	16	3	2	5	2	3	-	1	1	-	-	-	4	-	23
Chippewa	295	120	48	35	16	7	5	6	4	-	-	8	1	1	-	4	1	46
Clare	189	99	27	16	14	10	2	5	2	1	1	3	-	-	-	-	-	19
Clinton	325	124	53	39	25	15	10	4	9	2	1	1	1	1	-	5	1	49
Crawford	78	27	17	10	5	4	1	1	1	1	-	3	-	-	-	1	-	11
Delta	408	148	58	45	30	15	10	13	9	1	1	12	1	1	-	2	-	77
Dickinson	278	109	46	37	9	4	14	10	18	-	1	6	-	-	-	-	1	27
Eaton	493	214	75	36	36	23	12	13	12	-	3	6	4	4	-	8	1	69
Emmet	189	84	42	17	7	4	3	6	-	1	-	2	-	-	-	2	-	25
Genesee	3,312	1,257	575	292	246	135	70	76	56	3	26	59	12	15	-	60	50	515
Gladwin	147	50	25	20	7	4	5	4	1	-	1	2	1	-	-	4	-	27
Gogebic	294	145	45	25	5	4	10	8	1	-	-	8	2	2	-	4	1	37
Grand Traverse	327	114	63	34	16	8	9	12	10	2	3	5	1	1	-	6	1	50
Grafton	379	154	61	50	12	6	13	7	16	1	2	2	2	1	-	5	-	53
Hillsdale	343	125	56	39	24	12	18	10	9	-	1	2	1	-	-	4	1	53
Houghton	485	230	81	42	21	7	11	24	12	-	2	7	4	2	-	3	-	46
Huron	432	172	69	66	29	21	8	8	11	2	2	4	2	2	-	3	-	54
Ingham	1,704	647	302	138	107	56	43	35	50	4	13	28	7	7	-	34	9	280
Ionia	412	157	60	49	28	19	10	17	12	-	1	4	-	2	-	6	2	64
Iosco	258	115	45	18	12	6	6	6	14	1	1	1	1	5	-	4	2	27
Iron	200	57	43	47	14	8	5	3	1	1	1	1	-	-	-	1	-	26
Isabella	295	107	53	41	19	14	5	7	6	1	5	2	1	-	-	1	1	46
Jackson	1,284	523	239	123	68	40	34	19	35	3	5	19	1	2	1	20	2	190
Kalamazoo	1,477	563	293	117	90	49	42	47	43	2	6	14	2	4	-	24	8	222
Kalkaska	80	30	17	9	6	5	-	-	1	-	-	-	-	-	1	2	-	14
Kent	3,496	1,354	613	362	199	104	82	76	112	4	21	42	6	12	-	42	18	553
Keeweenaw	43	20	8	7	2	1	-	-	1	-	-	-	-	-	-	-	-	3
Lake	107	46	20	8	6	3	5	1	1	-	1	-	-	-	-	2	4	12
Lapeer	444	180	71	49	33	20	17	11	12	1	1	5	2	-	-	1	1	60
Leelanau	101	36	18	13	5	-	3	4	2	-	2	1	1	-	-	2	1	13
Lenawee	705	251	124	77	51	37	17	15	18	1	6	8	1	1	-	12	-	123
Livingston	427	149	68	38	56	34	12	11	9	1	2	10	-	2	-	6	1	62
Luce	83	31	13	11	9	7	5	2	-	-	-	-	-	-	-	-	-	8
Mackinac	126	56	17	16	11	4	2	2	4	-	1	-	-	-	-	3	-	14
Macomb	3,632	1,467	688	367	188	108	88	75	25	3	20	89	12	7	4	61	22	516
Manistee	286	113	52	34	13	8	13	5	6	-	1	8	-	-	-	2	1	38
Marquette	532	232	85	50	29	14	8	8	10	1	1	12	2	1	-	8	1	84
Mason	232	112	27	23	10	5	7	5	6	1	2	5	-	1	-	1	-	32
Mecosta	240	104	38	23	17	13	8	5	2	-	1	5	-	2	1	3	1	30
Menominee	294	120	56	41	10	6	11	5	3	1	3	2	-	-	-	2	2	38
Midland	370	141	54	38	37	25	10	12	5	1	1	5	-	1	-	6	-	59
Missaukee	112	37	24	12	10	5	5	3	1	-	-	-	1	1	-	1	2	15
Monroe	876	330	156	85	66	40	27	19	7	1	7	12	3	3	-	16	6	138
Montcalm	411	171	71	50	22	10	12	7	8	-	3	4	-	3	-	2	1	57
Montmorency	83	40	15	7	2	1	-	5	-	-	-	-	-	-	-	3	1	10
Muskegon	1,368	497	254	166	81	34	46	31	18	6	6	24	4	6	1	11	14	203
Newaygo	283	117	47	15	22	14	6	8	8	-	-	7	-	3	-	8	-	42
Oakland	6,155	2,366	1,180	617	397	214	139	136	34	4	28	111	15	17	2	116	56	917
Oceana	175	56	30	27	13	6	4	5	4	-	1	1	1	1	1	2	-	29
Ogemaw	162	67	22	26	9	4	7	2	10	-	-	3	-	-	-	2	-	14
Ontonagon	133	63	23	12	6	1	4	5	5	-	2	1	-	-	-	1	-	11
Osceola	180	83	40	16	4	2	6	4	2	-	1	2	2	2	-	1	1	16
Oscoda	58	24	14	11	7	3	-	-	1	-	-	-	-	-	-	-	-	1
Otsego	104	40	22	11	10	6	1	1	-	-	-	2	-	1	-	1	2	13
Ottawa	864	327	149	109	62	40	13	19	21	1	4	6	-	4	-	6	3	140
Presque Isle	122	57	16	10	8	3	3	3	2	-	-	2	4	-	-	4	-	13
Roscommon	162	72	35	21	10	5	4	2	2	-	-	-	1	-	-	1	1	13
Saginaw	1,807	708	306	179	127	62	48	37	34	2	4	33	9	6	1	18	33	262
St. Clair	1,279	480	220	132	100	38	45	24	34	1	8	16	5	4	-	16	7	187
St. Joseph	542	215	91	62	27	16	20	17	8	1	2	4	1	4	-	3	2	85
Sunflac	418	165	58	62	28	12	12	15	11	-	-	4	1	1	-	8	1	50
Schoolcraft	108	60	21	6	4	2	5	3	1	-	-	2	-	-	-	-	-	6
Shiawassee	558	228	82	61	44	22	15	15	11	-	4	5	1	-	-	4	1	87
Tuscola	459	223	59	41	31	19	14	14	7	-	3	5	2	-	-	5	-	55
Van Buren	620	257	84															

TABLE 4.13  
NUMBER OF DEATHS BY CAUSE  
MICHIGAN RESIDENTS, 1971

ICDA LIST NUMBER	CAUSE OF DEATH	NUMBER	ICDA LIST NUMBER	CAUSE OF DEATH	NUMBER
<b>I. INFECTIVE AND PARASITIC DISEASES (000-136)</b>					
003	Other salmonella infections-----	1	181	Choriocarcinoma-----	2
006	Amebiasis-----	1	182	Other malignant neoplasm of uterus-----	221
007	Other protozoal intestinal diseases-----	1	183	Malignant neoplasm of ovary, fallopian tube, and broad ligament-----	422
008	Enteritis due to other specified organism-----	12	184	Malignant neoplasm of other and unspecified female genital organs-----	38
009	Diarrheal disease-----	78	185	Malignant neoplasm of prostate-----	706
010	Silicotuberculosis-----	6	186	Malignant neoplasm of testis-----	38
011	Pulmonary tuberculosis-----	112	187	Malignant neoplasm of other and unspecified male genital organs-----	9
012	Other respiratory tuberculosis-----	4	188	Malignant neoplasm of bladder-----	361
013	Tuberculosis of meninges and central nervous system-----	7	189	Malignant neoplasm of other and unspecified urinary organs-----	286
014	Tuberculosis of intestines, peritoneum, and mesenteric glands-----	1	190	Malignant neoplasm of eye-----	12
015	Tuberculosis of bones and joints-----	1	191	Malignant neoplasm of brain-----	321
017	Tuberculosis of other organs-----	1	192	Malignant neoplasm of other parts of nervous system-----	38
018	Disseminated tuberculosis-----	8	193	Malignant neoplasm of thyroid gland-----	44
019	Late effects of tuberculosis-----	33	194	Malignant neoplasm of other endocrine glands-----	24
027	Other zoonotic bacterial diseases-----	1	195	Malignant neoplasm of ill-defined sites-----	117
034	Streptococcal sore throat and scarlet fever-----	4	196	Secondary and unspecified malignant neoplasm of lymph nodes-----	5
036	Meningococcal infection-----	21	197	Secondary malignant neoplasm of respiratory and digestive systems-----	206
037	Tetanus-----	2	198	Other secondary malignant neoplasm-----	60
038	Septicemia-----	110	199	Malignant neoplasm without specification of site-----	535
039	Other bacterial diseases-----	12	200	Lymphosarcoma and reticulum-cell sarcoma-----	335
044	Late effects of acute poliomyelitis-----	5	201	Hodgkin's disease-----	149
045	Aseptic meningitis due to enterovirus-----	1	202	Other neoplasms of lymphoid tissue-----	130
046	Other enterovirus diseases of central nervous system-----	3	203	Multiple myeloma-----	186
052	Chickenpox-----	5	204	Lymphatic leukemia-----	169
053	Herpes zoster-----	1	205	Myeloid leukemia-----	250
054	Herpes simplex-----	5	206	Monocytic leukemia-----	31
065	Viral encephalitis, unspecified-----	20	207	Other and unspecified leukemia-----	152
066	Late effects of viral encephalitis-----	1	208	Polycythemia vera-----	20
070	Infectious hepatitis-----	54	209	Myelofibrosis-----	41
079	Other viral diseases-----	18	211	Benign neoplasm of other parts of digestive system-----	10
093	Cardiovascular syphilis-----	6	212	Benign neoplasm of respiratory system-----	7
094	Syphilis of central nervous system-----	9	215	Other benign neoplasm of muscular and connective tissue-----	4
097	Other syphilis and not specified-----	3	217	Benign neoplasm of breast-----	1
112	Moniliasis-----	13	218	Uterine fibroma-----	6
113	Actinomycosis-----	1	220	Benign neoplasm of ovary-----	3
115	Histoplasmosis-----	2	223	Benign neoplasm of kidney and other urinary organs-----	2
116	Blastomycosis-----	6	225	Benign neoplasm of brain and other parts of nervous system-----	40
117	Other systemic mycosis-----	1	226	Benign neoplasm of endocrine glands-----	11
122	Hydatidosis-----	1	227	Hemangioma and lymphangioma-----	5
130	Toxoplasmosis-----	1	228	Benign neoplasm of other and unspecified organs and tissues-----	5
135	Sarcoidosis-----	19	230	Neoplasm of unspecified nature of digestive organs-----	8
136	Other and unspecified infective and parasitic diseases-----	2	231	Neoplasm of unspecified nature of respiratory organs-----	5
<b>II. NEOPLASMS (140-239)</b>					
140	Malignant neoplasm of lip-----	7	234	Neoplasm of unspecified nature of uterus-----	1
141	Malignant neoplasm of tongue-----	72	235	Neoplasm of unspecified nature of ovary-----	1
142	Malignant neoplasm of salivary gland-----	21	237	Neoplasm of unspecified nature of other genitourinary organs-----	2
143	Malignant neoplasm of gum-----	5	238	Neoplasm of unspecified nature of eye, brain, and other parts of nervous system-----	26
144	Malignant neoplasm of floor of mouth-----	28	239	Neoplasm of unspecified nature of other and unspecified organs-----	14
145	Malignant neoplasm of other and unspecified parts of mouth-----	42	241	Nontoxic nodular goiter-----	2
146	Malignant neoplasm of oropharynx-----	39	242	Thyrotoxicosis with or without goiter-----	11
147	Malignant neoplasm of nasopharynx-----	17	244	Myxedema-----	6
148	Malignant neoplasm of hypopharynx-----	19	246	Other diseases of thyroid gland-----	1
149	Malignant neoplasm of pharynx, unspecified-----	58	250	Diabetes mellitus-----	2,103
150	Malignant neoplasm of esophagus-----	257	251	Disorders of pancreatic internal secretion other than diabetes mellitus-----	14
151	Malignant neoplasm of stomach-----	670	252	Diseases of parathyroid gland-----	2
152	Malignant neoplasm of small intestine, including duodenum-----	29	253	Diseases of pituitary gland-----	11
153	Malignant neoplasm of large intestine, except rectum-----	1,390	254	Diseases of thymus gland-----	1
154	Malignant neoplasm of rectum and rectosigmoid junction-----	384	255	Diseases of adrenal glands-----	14
155	Malignant neoplasm of liver and intra- hepatic bile ducts, specified as primary-----	87	258	Polyglandular dysfunction and other diseases of endocrine glands-----	13
156	Malignant neoplasm of gallbladder and bile ducts-----	179	265	Vitamin D deficiency-----	1
157	Malignant neoplasm of pancreas-----	670	268	Nutritional marasmus-----	18
158	Malignant neoplasm of peritoneum and retroperitoneal tissue-----	24	269	Other nutritional deficiency-----	90
159	Malignant neoplasm of unspecified digestive organs-----	24	270	Congenital disorders of amino-acid metabolism-----	2
160	Malignant neoplasm of nose, nasal cavities, middle ear, and accessory sinuses-----	27			
161	Malignant neoplasm of larynx-----	120			
162	Malignant neoplasm of trachea, bronchus, and lung-----	2,737			
163	Malignant neoplasm of other and unspecified respiratory organs-----	31			
170	Malignant neoplasm of bone-----	83			
171	Malignant neoplasm of connective and other soft tissue-----	68			
172	Malignant melanoma of skin-----	103			
173	Other malignant neoplasm of skin-----	52			
174	Malignant neoplasm of breast-----	1,174			
180	Malignant neoplasm of cervix uteri-----	269			
<b>III. ENDOCRINE, NUTRITIONAL, AND METABOLIC DISEASES (240-279)</b>					



