# **2019 Minnesota Health Statistics**

ANNUAL SUMMARY 12/31/2020



#### **2019 MN Health Statistics Annual Summary**

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Table 1. Percent change between 2018 and 2019 selected Minnesota Health Statistics for Minnesota residents.

Category	2018	2019	Percent Change
Total Population	5,611,179	5,639,632	0.5%
Population of Females 15-44	1,074,005	1,081,656	0.7%
Total Pregnancies to MN Residents	76,636	75,430	-1.6%
Live Births to MN Residents	67,348	66,033	-2.0%
Birth Rate (births per 1,000 total MN population)	12.0	11.7	-2.4%
Pregnancy Rate (pregnancies per 1,000 females ages 15-44)	71.4	69.7	-2.3%
Fertility Rate (births per 1,000 Females Ages 15-44)	62.7	61.0	-2.6%
Births to Unmarried Mothers (%)	31.9%	32.0%	0.2%
Low birthweight (Less than 2,500 grams)	6.9%	6.9%	-0.3%
Preterm (Less than 37 weeks gestation) <sup>1</sup>	8.9%	9.2%	3.6%
Fetal Deaths <sup>2</sup>	392	363	-7.4%
Infant Deaths (Infants aged < 1 year)	342	302	-11.7%
Neonatal Deaths (Infants aged < 28 days)	230	208	-9.6%
Postneonatal Deaths (Infants aged 28 days to < 1 year)	112	94	-16.1%
Fetal Mortality Rate (per 1,000 live births + Fetal Deaths)	5.1	4.8	-5.9%
Infant Mortality Rate (per 1,000 live births)	5.1	4.6	-9.9%
Neonatal Mortality Rate (per 1,000 live births)	3.4	3.1	-7.8%
Postneonatal Mortality Rate (per 1,000 live births)	1.7	1.4	-14.4%
All Deaths	44,730	45,516	1.8%
Death Rate (per 1,000 Total MN Population)	8.0	8.1	1.2%
Cancer Deaths (Malignant Neoplasms)	9,906	9,878	-0.3%
Heart Disease Deaths	8,401	8,183	-2.6%
Unintentional Injury Deaths	2,811	2,733	-2.8%
Alzheimer's Disease Deaths	2,435	2,568	5.5%
Chronic Lower Respiratory Disease Deaths	2,350	2,250	-4.3%
Stroke Deaths (Cerebrovascular Diseases)	2,268	2,307	1.7%
Diabetes Deaths	1,308	1,394	6.6%
Suicide Deaths (Intentional Self-harm)	737	802	8.8%

<sup>&</sup>lt;sup>1</sup> Based on Clinical Estimate of Gestation, all live births.

<sup>&</sup>lt;sup>2</sup> Includes all fetal deaths regardless of gestational age.

Table 2. Selected Demographic and Socioeconomic Characteristics of Minnesota Residents, Changes from 2018 to 2019

			Percent
Category	2018	2019	Change
Total Population	5,611,179	5,639,632	0.5%
Age groups			
Population < 5 years	355,291	351,622	-1.0%
Population 0-19 years	1,444,186	1,445,346	0.1%
Population >= 65 years	889,802	920,382	3.4%
Race/ethnicity <sup>1</sup>			
White, non-Hispanic	4,524,531	4,526,589	0.0%
African American, non-Hispanic	406,460	422,594	4.0%
American Indian, non-Hispanic	68,556	68,904	0.5%
Asian/Pacific Islander, non-Hispanic	302,349	306,415	1.3%
Hispanic/Latino (any race)	309,283	315,130	1.9%
Socioeconomic characteristics <sup>2</sup>			
Adults 25 years with HS diploma/GED or less	30.9%	30.8%	-0.3%
Total population living in poverty	9.6%	9.0%	-6.3%
Kids < 18 living in poverty	11.7%	11.2%	-4.3%
Kids < 18 living in single-parent headed households	25.6%	26.3%	2.7%
Unemployed (annual average)	3.4%	3.2%	-5.9%
Median household income	\$70,315.00	\$74,593.00	6.1%
Owner occupied houses	71.5%	71.9%	0.6%
Rural/urban residence <sup>3</sup>			
Large urban metropolitan area			
(population >= 1,000,000 and	1,809,638	1,816,164	0.4%
largest city >= 250,000 population)			
Large suburban metropolitan area	1,687,303	1,705,303	1.1%
(population >= 1,000,000 & largest city < 250,000)	1,007,303	1,703,303	1.170
Medium metropolitan area	235,591	234,941	-0.3%
(county with population 250,000-999,999)		- ,-	
Small metropolitan area	635,312	639,998	0.7%
(county with population < 250,000)	,	,	
Micropolitan area	666.606	667.407	0.40/
(county population 10,000-49,999 and	666,686	667,107	0.1%
urban area with at least 2,500 population) Non-core (Rural) area			
(county with population < 49,999 and	576,649	576,119	-0.1%
no urban area with > 2,500 population)	370,073	370,113	0.1/0

<sup>&</sup>lt;sup>1</sup> Annual Estimates are bridged-race Vintage 2019 postcensal estimates of the July 1 resident population. These estimates were prepared by the Census Bureau in collaboration with NCHS. Bridged race estimates created for the 5 race or Hispanic categories. Thus, there are no population estimates for other/unknown. For more information or access to the data, see: <a href="https://wonder.cdc.gov/wonder/help/bridged-race.html">https://wonder.cdc.gov/wonder/help/bridged-race.html</a>

<sup>&</sup>lt;sup>2</sup> From the American Community Survey, 1-year estimates files. These estimates may be slightly different than the 5-year estimates in the County Health Tables or Vital Statistics Trends reports.

<sup>&</sup>lt;sup>3</sup> Classification is based on the National Center for Health Statistics (NCHS) Urban-Rural Classification Scheme for Counties. See https://www.cdc.gov/nchs/data\_access/urban\_rural.htm for more detail.

Table 3. State Population by Race/Ethnicity and Age Group, MN Residents, 2019

		Non-H	ispanic	-		
	White	Black	American Indian	Asian/Pacific Islander	Hispanic	TOTAL
< 1 year	49,845	6,739	1,071	4,001	5,973	67,629
1 - 4 years	198,533	35,830	5,163	18,877	25,590	283,993
5 - 9 years	253,225	44,960	6,650	24,941	33,070	362,846
10 - 14 years	261,255	43,437	6,106	24,634	34,315	369,747
15 - 19 years	264,445	36,940	5,717	23,448	30,581	361,131
20 - 24 years	265,703	33,104	5,402	24,607	27,113	355,929
25 - 29 years	279,237	36,497	5,548	31,790	25,715	378,787
30 - 34 years	287,504	35,344	4,994	31,766	24,221	383,829
35 - 39 years	301,045	32,092	4,422	27,112	24,144	388,815
40 - 44 years	264,981	25,042	3,634	21,158	21,947	336,762
45 - 49 years	265,521	22,662	3,518	18,895	18,247	328,843
50 - 54 years	293,838	18,888	3,651	14,366	13,775	344,518
55 - 59 years	347,961	16,481	3,787	11,893	10,843	390,965
60 - 64 years	332,288	13,168	3,268	9,419	7,313	365,456
65 - 69 years	280,375	8,767	2,370	7,243	4,921	303,676
70 - 74 years	212,279	5,432	1,659	4,957	3,056	227,383
75 - 79 years	149,289	3,507	949	3,178	1,888	158,811
80 - 84 years	102,147	1,955	572	2,076	1,152	107,902
85+ years	117,118	1,749	423	2,054	1,266	122,610
TOTAL	4,526,589	422,594	68,904	306,415	315,130	5,639,632

**NOTES:** Annual Estimates are bridged-race Vintage 2019 postcensal estimates of the July 1 resident population. These estimates were prepared by the Census Bureau in collaboration with NCHS. Bridged race estimates created for the 5 race or Hispanic categories. Thus, there are no population estimates for other/unknown. For more information or access to the data, see: https://wonder.cdc.gov/wonder/help/bridged-race.html

Estimates by sex are on Table 4.

Table 4. State Population by Race/Ethnicity, Age Group, and Sex, MN Residents, 2019.

<u>Females</u>	<del>-</del>		American	Asian/Pacific		TOTAL
<u>remates</u>	White	Black	Indian	Islander	Hispanic	IOIAL
< 1 year	24,320	3,294	525	1,942	2,936	33,017
1 - 4 years	96,736	17,590	2,479	9,253	12,548	138,606
5 - 9 years	123,388	22,054	3,324	12,233	16,253	177,252
10 - 14 years	128,000	21,319	3,032	12,310	16,861	181,522
15 - 19 years	129,369	17,876	2,781	11,691	15,114	176,831
20 - 24 years	132,030	16,413	2,644	12,286	13,003	176,376
25 - 29 years	135,707	17,680	2,715	15,402	12,087	183,591
30 - 34 years	140,926	16,958	2,506	16,157	11,168	187,715
35 - 39 years	148,292	15,582	2,240	14,559	11,091	191,764
40 - 44 years	130,366	12,189	1,823	10,917	10,084	165,379
45 - 49 years	131,505	10,999	1,807	9,749	8,663	162,723
50 - 54 years	147,360	8,917	1,896	7,404	6,510	172,087
, 55 - 59 years	175,026	, 7,941	1,977	6,181	, 5,243	196,368
60 - 64 years	168,461	6,480	1,723	5,192	3,557	185,413
65 - 69 years	143,530	4,516	1,364	4,032	2,513	155,955
70 - 74 years	111,021	2,942	943	2,781	1,578	119,265
, 75 - 79 years	80,647	2,035	553	1,832	1,000	86,067
80 - 84 years	57,908	1,183	331	1,223	642	61,287
85+ years	75,228	1,116	278	1,283	698	78,603
TOTAL	2,279,820	207,084	34,941	156,427	151,549	2,829,821
Males						
	25.525	2.445	5.46	2.050	2 227	24.642
< 1 year	25,525	3,445	546	2,059	3,037	34,612
1 - 4 years	101,797	18,240	2,684	9,624	13,042	145,387
5 - 9 years	129,837	22,906	3,326	12,708	16,817	185,594
10 - 14 years	133,255	22,118	3,074	12,324	17,454	188,225
15 - 19 years	135,076	19,064	2,936	11,757	15,467	184,300
20 - 24 years	133,673	16,691	2,758	12,321	14,110	179,553
25 - 29 years	143,530	18,817	2,833	16,388	13,628	195,196
30 - 34 years	146,578	18,386	2,488	15,609	13,053	196,114
35 - 39 years 40 - 44 years	152,753	16,510	2,182 1,811	12,553 10,241	13,053	197,051
45 - 49 years	134,615 134,016	12,853 11,663	•	9,146	11,863 9,584	171,383 166,120
-			1,711			
50 - 54 years 55 - 59 years	146,478	9,971	1,755 1,810	6,962 5,712	7,265 5,600	172,431 194,597
-	172,935	8,540 6,699	•	-		
60 - 64 years 65 - 69 years	163,827 136,845	6,688 4,251	1,545 1,006	4,227 3,211	3,756 2,408	180,043 147,721
70 - 74 years		4,231 2,490	716	2,176	•	
70 - 74 years 75 - 79 years	101,258 68,642		396		1,478	108,118 72,744
-		1,472 772	241	1,346 853	888 510	
80 - 84 years	44,239 41,890	633	145	771	568	46,615 44,007
85+ years						
TOTAL	2,246,769	215,510	33,963	149,988	163,581	2,809,811

Table 5. Resident Live Births, Crude Birth Rates<sup>1</sup>, Fertility Rates<sup>2</sup>, Minnesota and United States, 1945, 1950, 1955, 1960, 1965, 1970, 1975, 1980, 1985, 1990, 1995, 2000, 2005-2019.

	Live Bi	rths	Crude Birth	Rate <sup>1</sup>	Fertility R	ate²
Year	Minnesota	U.S.	Minnesota	U.S.	Minnesota	U.S.
1945	54,656	2,858,000	20.9	20.4	85.1	85.9
1950	75,078	3,632,000	25.2	24.1	119.1	106.2
1955	81,532	4,097,000	25.7	25.0	130.1	118.3
1960	87,523	4,257,850	25.6	23.7	136.0	118.0
1965	70,810	3,760,358	19.7	19.4	105.9	96.3
1970	68,449	3,731,386	18.0	18.4	88.4	89.7
1975	56,463	3,144,198	14.4	14.6	65.4	66.0
1980	67,843	3,612,258	16.6	15.9	70.8	68.4
1985	67,412	3,760,561	16.1	15.8	68.0	66.2
1990	67,985	4,158,212	15.5	16.7	66.3	70.9
1995	63,259	3,899,589	13.7	14.7	60.1	65.6
2000	67,451	4,058,814	13.7	14.7	62.3	67.5
2005	70,920	4,140,419	13.8	14.0	64.9	66.7
2006	73,515	4,265,555	14.2	14.2	68.6	68.5
2007	73,675	4,316,233	14.2	14.3	69.6	69.5
2008	72,382	4,251,095	13.9	13.9	69.0	68.4
2009	70,617	4,130,665	13.4	13.5	67.5	66.7
2010	68,407	3,999,386	12.9	13.0	65.4	64.1
2011	68,416	3,953,593	12.8	12.7	65.5	63.2
2012	68,783	3,952,841	12.8	12.6	65.7	63.0
2013	69,183	3,932,181	12.8	12.4	65.9	62.5
2014	69,916	3,988,076	12.8	12.5	66.4	62.9
2015	69,835	3,978,497	12.7	12.4	66.3	62.5
2016	69,746	3,945,875	12.6	12.2	66.2	62.0
2017	68,603	3,855,500	12.3	11.8	64.3	60.3
2018	67,348	3,791,712	12.0	11.6	62.7	59.1
2019	66,033	3,745,540	11.7	11.4	61.0	58.2

<sup>&</sup>lt;sup>1</sup> Live Births per 1,000 total population.

<sup>&</sup>lt;sup>2</sup> Live Births per 1,000 Female Population Ages 15-44.

Table 6. Numbers and Rates of Resident Deaths, Infant and Neonatal Deaths; Minnesota and United States, 1940, 1945, 1950, 1955, 1960, 1965, 1970, 1975, 1980, 1985, 1990, 1995, 2000, 2005-2019.

		Deaths				Infant Deaths				Neonatal Deaths			
	Minne	sota	United S	tates	Minne	esota	United 9	States	Minne	sota	United 9	states	
Year	Number	Rate <sup>2</sup>	Number	Rate <sup>2</sup>	Number	Rate <sup>3</sup>	Number	Rate <sup>3</sup>	Number	Rate <sup>4</sup>	Number	Rate <sup>4</sup>	
1955	28,574	9.0	1,528,717	9.3	1,779	21.8	106,903	26.4	1,386	17.0	77,351	19.1	
1960	31,596	9.3	1,711,982	9.5	1,881	21.5	110,873	26.0	1,397	16.0	79,733	18.7	
1965	32,477	9.0	1,828,136	9.4	1,432	20.2	92,866	24.7	1,075	15.2	66,419	17.7	
1970	33,919	8.9	1,921,031	9.5	1,203	17.6	74,667	20.0	944	13.8	56,279	15.1	
1975	32,686	8.3	1,892,879	8.8	771	13.7	50,525	16.1	582	10.3	36,416	11.6	
1980	33,415	8.2	1,989,841	8.8	679	10.0	45,526	12.6	421	6.2	30,618	8.5	
1985	34,793	0.0	2,086,440	8.7	591	8.8	40,030	10.6	364	5.4	26,179	7.0	
1990	34,739	7.9	2,148,463	8.6	796	7.3	38,100	9.2	295	4.3	24,309	5.8	
1995	37,427	8.1	2,312,132	8.8	427	6.8	29,583	7.6	255	4.0	19,155	4.9	
2000	37,595	7.6	2,403,351	8.7	377	5.6	28,035	6.9	252	3.7	18,776	4.6	
2005	37,498	7.3	2,447,903	8.0	363	5.1	28,534	6.9	232	3.3	18,834	4.6	
2006	36,963	7.2	2,426,264	8.1	381	5.2	28,527	6.7	243	3.3	18,989	4.5	
2007	37,086	7.1	2,423,712	8.0	407	5.5	29,138	6.8	278	3.8	19,058	4.4	
2008	38,431	7.4	2,471,984	8.1	433	6.0	28,059	6.6	275	3.8	18,211	4.3	
2009	37,801	7.2	2,437,163	7.9	324	4.5	26,412	6.4	188	2.7	17,255	4.2	
2010	38,857	7.3	2,468,435	8.0	309	4.5	24,586	6.2	210	3.1	16,188	4.1	
2011	39,799	7.4	2,515,458	8.1	339	5.0	23,985	6.1	224	3.3	15,954	4.0	
2012	40,020	7.4	2,543,279	8.1	347	5.0	23,629	6.0	249	3.6	15,850	4.0	
2013	40,981	7.6	2,596,993	8.2	349	5.0	23,440	6.0	248	3.6	15,867	4.0	
2014	41,271	7.6	2,626,418	8.2	352	5.0	23,215	5.8	233	3.3	15,720	3.9	
2015	42,652	7.8	2,712,630	8.4	361	5.2	23,455	5.9	262	3.8	15,652	3.9	
2016	43,050	7.8	2,744,248	8.5	357	5.1	23,161	5.9	242	3.5	15,282	3.9	
2017	44,361	8.0	2,813,503	8.6	329	4.8	22,335	5.8	225	3.3	14,821	3.8	
2018	44,730	8.0	2,839,205	8.7	342	4.5	21,467	5.7	230	3.0	14,289	3.8	
2019	45,516	7.9	N/A		292	4.4	N/A		208	3.1	N/A		

<sup>&</sup>lt;sup>1</sup>2019 US rates are based on provisional data; final counts are not yet available.

<sup>&</sup>lt;sup>2</sup> Deaths per 1,000 Population.

<sup>&</sup>lt;sup>3</sup> Infant Deaths per 1,000 Live Births.

<sup>&</sup>lt;sup>4</sup> Neonatal Deaths (infant born alive and died within first 28 days) per 1,000 Live Births.

Table 7. Summary of Selected Vital Statistics by Race and Hispanic Ethnicity<sup>1</sup>, Minnesota Residents, 2019.

			Non-Hispanio	С			
	White	African American	American Indian	Asian/ Pacific Isl.	Other/ Unknown	Hispanic	TOTAL
Fertility (counts)							
Total pregnancies	49,288	11,426	1,301	6,093	1,408	5,886	75,402
Live births	45,404	8,840	1,120	5,407	273	4,989	66,033
Induced abortions <sup>2</sup>	3,696	2,512	172	663	1,123	868	9,034
Fetal deaths <sup>3</sup>	188	74	9	23	12	29	335
Late fetal deaths	97	40	5	9	6	14	171
Natality (percents)							
First-time mothers	38.1%	26.1%	26.6%	33.4%	25.3%	32.9%	35.4%
Late PNC	1.9%	6.0%	16.5%	3.5%	9.9%	6.9%	3.2%
Inadequate PNC	5.2%	18.2%	28.7%	12.4%	17.2%	16.1%	8.8%
C-section (any) delivery	27.6%	30.4%	32.1%	23.2%	27.5%	26.5%	27.6%
Low birthweight	5.9%	10.6%	9.0%	8.5%	11.0%	7.0%	6.9%
Preterm	8.8%	11.0%	14.6%	8.5%	12.1%	9.6%	9.2%
Mortality (counts)							
Female deaths	20,683	711	311	379	48	207	22,339
Male deaths	21,081	922	347	468	64	293	23,175
Total deaths <sup>5</sup>	41,764	1,633	658	847	112	500	45,514
Perinatal Mortality							
Perinatal deaths <sup>6</sup> (Late fetal + Early neonatal)	166	74	10	25	17	33	325
Total infant deaths <sup>7</sup>	152	70	8	26	14	32	302
Neonatal deaths (< 28 days)	100	45	6	19	12	26	208
Early neonatal death (< 7 days)	69	34	5	16	11	19	154
Postneonatal deaths (28 days - 1 yr)	52	25	2	7	2	6	94

<sup>&</sup>lt;sup>1</sup>Race/ethnicity based on self-identified race/ethnicity of woman.

NOTE: Counts based on <20 events should not be used to calculate rates due to instability of the estimates.

<sup>&</sup>lt;sup>2</sup> Race and ethnicity data for abortions are not collected and processed the same as for natality data. The other/unknown race category for abortion includes those with multiple races, while multiple races are probablistically assigned to one of the other four race categories. Thus, the other/unknown race category for natality statistics only includes those with unknown race. Abortion

<sup>&</sup>lt;sup>3</sup> Fetal deaths of less than 20 weeks gestation are not included in the counts. Late fetal deaths are a subset of fetal deaths occurring at 28 weeks or later gestation.

<sup>&</sup>lt;sup>4</sup> Perinatal deaths include late fetal deaths (28 or more weeks gestation) plus early neonatal deaths (under 7 days of age).

<sup>&</sup>lt;sup>5</sup> Two deaths do not have an assigned gender and are not included in the total .

<sup>&</sup>lt;sup>5</sup> Infant deaths are period events that occurred in the reporting period and are included in the mortality files.

Table 8. Summary of Selected Vital Statistics by Urban/Rural Classification<sup>1</sup>, Minnesota Residents, 2019.

-	Metropolitan				Non-Met (Ru	TOTAL	
	Large Urban	Large Suburban	Medium	Small	Micro	Non-Core	IOIAL
Fertility (counts)							
Total pregnancies	27,531	22,051	2,611	8,485	8,105	6,604	75,387
Live births	22,581	19,565	2,286	7,768	7,554	6,268	66,022
Induced abortions	4,838	2,383	310	679	518	302	9,030
Fetal deaths <sup>2</sup>	112	103	15	38	33	34	335
Late fetal deaths (> 28 weeks)	54	54	6	19	20	18	171
Natality (percents)							
First-time mothers	38.0%	35.1%	37.6%	34.7%	32.3%	31.2%	35.4%
Late PNC	4.0%	2.7%	3.3%	2.0%	3.0%	3.8%	3.2%
Inadequate PNC	11.0%	7.3%	7.6%	6.2%	9.1%	8.6%	8.8%
C-section	26.8%	28.3%	27.9%	27.4%	27.7%	27.9%	27.6%
Low birthweight	7.8%	6.4%	6.8%	6.4%	6.4%	6.4%	6.9%
Preterm	9.4%	8.8%	10.0%	9.6%	9.3%	9.1%	9.2%
Mortality (counts) <sup>3</sup>							
Female deaths	6,660	5,593	1,184	2,427	3,274	3,190	22,339
Male deaths	6,659	5,650	1,255	2,603	3,469	3,527	23,175
Total deaths	13,319	11,243	2,439	5,030	6,743	6,717	45,491
Perinatal Mortality Perinatal deaths <sup>4</sup> (Late fetal + Early neonatal)	121	87	10	38	39	30	325
Total infant deaths <sup>5</sup>	123	70	11	36	33	29	302
Neonatal deaths (< 28 days)	90	43	7	26	21	21	208
Early neonatal death (< 7 days)	67	33	4	19	19	12	154
Postneonatal deaths (28 days - 1 yr)	33	27	4	10	12	8	94

<sup>&</sup>lt;sup>1</sup> Classification is based on the National Center for Health Statistics (NCHS) Urban-Rural Classification Scheme for Counties. See Introduction to this report or https://www.cdc.gov/nchs/data\_access/urban\_rural.htm. 15 are missing county of residence.

**NOTE:** Counts based on <20 events should not be used to calculate rates due to instability of the estimates.

<sup>&</sup>lt;sup>2</sup> Fetal deaths of less than 20 weeks gestation are not included in the counts. Late fetal deaths are a subset of fetal deaths occurring at 28 weeks or later gestation.

<sup>&</sup>lt;sup>3</sup> Total mortality counts do not include 23 that are missing geography, 2 that are missing gender.

<sup>&</sup>lt;sup>4</sup> Perinatal deaths include late fetal deaths (28 or more weeks gestation) plus early neonatal deaths (under 7 days of age).

<sup>&</sup>lt;sup>5</sup> Infant deaths are period events that occurred in the reporting period and are from the annual mortality file.

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### **Natality Tables**

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Table 1. Resident Live Births Distributed by County of Occurrence (n=66,033); Live Births by County of Occurrence Distributed by Residence (n=65,083), Minnesota 2019.

Distributed by Resid	-		o MN County Re	esidents	Births O	ccurring in EACH	County
			across Place of Birth			ss Place of Resid	=
	•	Outside County of Residence				Other	Out of
		Within	Within	Outside		Minnesota	State
County	Total <sup>1</sup>	County	Minnesota	Minnesota	Total <sup>2</sup>	Residents	Residents
State Total	66,022	39,787	23,678	2,557	65,083	23,678	1,619
Aitkin	109	48	61	0	64	16	0
Anoka	4,186	1,861	2,314	11	2,965	1,097	7
Becker	374	273	53	48	477	200	4
Beltrami	671	615	25	31	906	288	3
Benton	523	10	511	2	10	0	0
Big Stone	69	44	6	19	85	25	16
Blue Earth	727	644	82	1	1,399	744	11
Brown	227	179	48	0	324	143	2
Carlton	387	74	311	2	151	75	2
Carver	1,162	691	471	0	1,352	660	1
Cass	265	1	260	4	1,332	0	0
Chippewa	127	60	67	0	91	30	1
Chisago	577	271	259	47	592	314	7
Clay	870	6	239	842	7	0	1
Clearwater	98	12	83	3	12	0	0
Cook	25	6	19	0	6	0	0
Cottonwood	141	80	38	23	100	20	0
	638	438	199		637	197	2
Crow Wing				1			
Dakota	5,180	1,999	3,161	19	3,022	988	35
Dodge	260	1	256	3	1	0	0
Douglas	405	365	38	2	633	267	1
Faribault	145	53	92	0	76	19	4
Fillmore	254	31	167	56	31	0	0
Freeborn	318	204	111	3	287	58	25
Goodhue	511	188	318	5	284	58	38
Grant	76	0	74	2	0	0	0
Hennepin	15,430	13,728	1,647	55	20,852	6,990	134
Bloomington	942	7	933	2	7	0	0
Edina	470	242	226	2	3,064	2,807	15
Minneapolis	5,522	3,577	1,918	27	9,245	5,565	103
Richfield	499	1	498	0	1	0	0
Houston	188	0	10	178	0	0	0
Hubbard	203	79	118	6	114	35	0
Isanti	441	163	276	2	275	112	0
Itasca	429	326	101	2	378	51	1
Jackson	101	0	60	41	0	0	0
Kanabec	156	79	75	2	193	113	1
Kandiyohi	556	476	79	1	661	184	1
Kittson	45	0	17	28	0	0	0
Koochiching	99	42	57	0	46	3	1
Lac Qui Parle	71	2	55	14	2	0	0
Lake	93	3	90	0	4	0	1
Lake of the Woods	42	0	39	3	0	0	0
Le Sueur	288	1	287	0	1	0	0
Lincoln	59	2	27	30	2	0	0
Lyon	346	290	15	41	462	169	3
McLeod	384	256	127	1	398	139	3
Mahnomen	98	4	83	11	4	0	0

Table 1. Resident Live Births Distributed by County of Occurrence (n=66,033); Live Births by County of Occurrence Distributed by Residence (n=65.083). Minnesota 2019.

			to MN County Re			occurring in EACH	•
		ac	cross Place of Bi		acro	ss Place of Resid	
		\ A /: + la : -a	Outside Count			Other	Out of
C	<b>-</b> 1	Within	Within	Outside	<b>-</b>	Minnesota	State
County	Total <sup>1</sup>	County	Minnesota	Minnesota	Total <sup>2</sup>	Residents	Residents
Marshall	135	3	73	59 _	3	0	0
Martin	252	171	74	7	210	23	16
Meeker	270	103	166	1	124	20	1
Mille Lacs	286	30	254	2	89	59	0
Morrison	371	120	249	2	140	20	0
Mower	551	361	184	6	441	66	15
Murray	90	4	63	23	5	1	0
Nicollet	339	10	328	1	56	44	2
Nobles	372	273	23	76	375	82	20
Norman	69	3	6	60	3	0	0
Olmsted	2,029	2,007	16	6	3,451	1,274	170
Otter Tail	634	366	204	64	452	81	5
Pennington	149	130	0	19	271	141	0
Pine	244	3	239	2	4	1	0
Pipestone	127	65	25	37	85	14	6
Polk	368	109	20	239	161	46	6
Pope	132	62	70	0	114	52	0
Ramsey	7,151	4,716	2,402	33	8,889	3,966	207
St. Paul	4,559	2,223	2,314	22	6,282	3,876	183
Red Lake	46	0	36	10	0	0	0
Redwood	196	68	116	12	90	21	1
Renville	161	29	132	0	41	12	0
Rice	720	293	425	2	347	54	0
Rock	90	24	0	66	81	48	9
Roseau	163	128	24	11	162	25	9
St. Louis	1,899	1,849	46	4	2,895	572	474
Duluth	987	971	16	0	2,855	908	472
Scott	1,691	771	916	4	1,203	428	4/2
Sherburne		130	1,069		346	214	
	1,202			3			2
Sibley	164	0	164	0	0	0	0
Stearns	1,987	1,817	166	4	3,100	1,276	7
Steele	417	317	100	0	469	150	2
Stevens	129	67	59	3	90	23	0
Swift	110	2	108	0	2	0	0
Todd	291	181	110	0	527	345	1
Traverse	27	0	12	15	1	0	1
Wabasha	223	1	217	5	2	0	1
Wadena	192	53	136	3	129	76	0
Waseca	189	2	187	0	2	0	0
Washington	2,701	1,066	1,604	31	2,609	1,262	281
Watonwan	168	0	167	1	0	0	0
Wilkin	72	15	16	41	63	3	45
Winona	467	205	117	145	244	14	25
Wright	1,687	607	1,079	1	861	252	2
Yellow Medicine	107	21	67	19	41	18	2

<sup>&</sup>lt;sup>1</sup> County or residence or occurrence is missing for eleven records.

<sup>&</sup>lt;sup>2</sup> Total births occurring in each county includes births to MN county residents within county of residence (second column).

Table 2. Counts and Percentages for Characteristerics of Birth Mother by Race/Ethnicity, MN Residents, 2019.

				Non-H	lispanic							
	WI	nite	African A	American	America	an Indian	•	Pacific nder	– Hispani	c/Latino	тот	<b>AL</b>
Total births in each group	45,	404	8,8	340	1,1	120	5,4	107	4,989		66,033	
	#	Col %	#	Col %	#	Col %	#	Col %	#	Col %	#	Col %
Age of Mother <sup>1</sup>												
< 18 years	136	0.3%	90	1.0%	32	2.9%	29	0.5%	122	2.4%	412	0.6%
18-19 years	631	1.4%	282	3.2%	82	7.3%	76	1.4%	311	6.2%	1,390	2.1%
Teen Mom Total	767	1.7%	372	4.2%	114	10.2%	105	1.9%	433	8.7%	1,802	2.7%
20-24 years	4,990	11.0%	1,534	17.4%	313	27.9%	701	13.0%	1,226	24.6%	8,811	13.3%
25-29 years	13,306	29.3%	2,501	28.3%	299	26.7%	1,545	28.6%	1,388	27.8%	19,098	28.9%
30-34 years	17,179	37.8%	2,664	30.1%	237	21.2%	1,890	35.0%	1,130	22.6%	23,183	35.1%
35-39 years	7,795	17.2%	1,394	15.8%	137	12.2%	978	18.1%	648	13.0%	11,018	16.7%
40-44 years	1,280	2.8%	318	3.6%	19		165	3.1%	153	3.1%	1,941	2.9%
45+ years	80	0.2%	56	0.6%	1		22	0.4%	11		171	0.3%
Educational Attainment <sup>2</sup>												
< High School	753	1.9%	1,839	26.5%	150	21.6%	534	11.6%	1,018	30.6%	4,328	7.8%
HS Diploma / GED	3,695	9.5%	1,728	33.9%	250	46.0%	695	17.1%	825	35.7%	7,217	14.1%
Some College, No degree	6,063	13.0%	1,541	17.7%	155	32.1%	623	9.1%	585	16.8%	8,993	13.5%
Associate Degree	5,771	10.4%	665	7.4%	69	15.9%	467	6.2%	248	5.9%	7,234	9.4%
Bachelor's Degree	15,230	26.4%	753	8.0%	45	8.4%	1,221	16.5%	425	9.7%	17,700	22.2%
Graduate / Professional Degree	8,059	16.7%	333	3.6%	18		1,042	16.3%	207	4.3%	9,675	13.9%
Unknown	76	0.2%	75	0.8%	6		19		22	0.4%	273	0.4%
Urban/Rural Residence <sup>3</sup>												
Large Urban Metro Area	11,501	25.3%	5,315	60.1%	190	17.0%	3,470	64.2%	1,994	40.0%	22,581	34.2%
Large Suburban Metro Area	14,885	32.8%	1,852	21.0%	105	9.4%	1,369	25.3%	1,288	25.8%	19,565	29.6%
Medium/ Small Metro Area	8,014	17.7%	1,107	12.5%	171	15.3%	268	5.0%	446	8.9%	10,054	15.2%
Micropolitan Area	5,646	12.4%	480	5.4%	382	34.1%	211	3.9%	814	16.3%	7,554	11.4%
Noncore (Rural) Area	5,352	11.8%	82	0.9%	271	24.2%	89	1.6%	447	9.0%	6,268	9.5%
Natvity Status												
US born	44,026	97.0%	3,623	41.0%	1,101	98.3%	1,705	31.5%	2,295	46.0%	52,929	80.2%
Foreign-born	1,378	3.0%	5,217	59.0%	19		3,702	68.5%	2,694	54.0%	13,104	19.8%

<sup>&</sup>lt;sup>1</sup> Nine women are missing age and not included in this variable.
<sup>2</sup> Educational attainment calculated for mothers age 25 years and older.

<sup>&</sup>lt;sup>3</sup> Eleven are missing county of residence and are not included in this variable. See Appendix B for more information and definitions of each geographic area type.

Table 3. Counts and Percentages<sup>1</sup> for Selected Pregnancy Characteristics by Race/Ethnicity, MN Residents, 2019.

				Non-H	ispanic							
- -	Wh	ite	African A	merican	America	n Indian	Asian/I Islan		Hispanic	/Latino	тот	AL
Total births in each group	45,4	104	8,840		1,120		5,407		4,989		66,033	
	#	Col %	#	Col %	#	Col %	#	Col %	#	Col %	#	Col %
Previous Live Births												
None	17,283	38.1%	2,304	26.1%	298	26.6%	1,808	33.4%	1,640	32.9%	23,402	35.4%
One	15,448	34.0%	2,090	23.6%	269	24.0%	1,679	31.1%	1,479	29.6%	21,031	31.8%
Two or more	12,605	27.8%	4,424	50.0%	543	48.5%	1,913	35.4%	1,864	37.4%	21,472	32.5%
Prepregnancy BMI <sup>2</sup>												
Underweight (BMI < 19.0)	1,342	3.0%	316	3.6%	23	2.1%	263	4.9%	136	2.7%	2,094	3.2%
Acceptable (BMI 19.0 - 24.9)	19,130	42.1%	2,737	31.0%	289	25.8%	2,516	46.5%	1,509	30.2%	26,271	39.8%
Overweight (BMI 25.0 - 29.9)	12,154	26.8%	2,645	29.9%	295	26.3%	1,544	28.6%	1,477	29.6%	18,180	27.5%
Obese (BMI 30.0 - 40.9)	10,459	23.0%	2,520	28.5%	383	34.2%	968	17.9%	1,535	30.8%	15,930	24.1%
Morbidly Obese (BMI > 40.9)	2,028	4.5%	467	5.3%	83	7.4%	74	1.4%	239	4.8%	2,903	4.4%
Height/weight missing	291	0.6%	155	1.8%	47	4.2%	42	0.8%	93	1.9%	655	1.0%
Trimester Prenatal Care Began												
First	37,772	83.2%	5,919	67.0%	586	52.3%	3,997	73.9%	3,606	72.3%	52,001	78.8%
Second	4,340	9.6%	2,139	24.2%	265	23.7%	1,146	21.2%	999	20.0%	8,939	13.5%
Third	681	1.5%	441	5.0%	110	9.8%	159	2.9%	284	5.7%	1,695	2.6%
No prenatal care	183	0.4%	92	1.0%	75	6.7%	28	0.5%	58	1.2%	443	0.7%
Out of state births <sup>3</sup>	2,187	4.8%	181	2.0%	71	6.3%	52	1.0%	0		2,558	3.9%
Prenatal care not reported	241	0.5%	68	0.8%	13		25	0.5%	42	0.8%	397	0.6%
Adequacy of Prenatal Care												
None	183	0.4%	92	1.0%	75	6.7%	28	0.5%	58	1.2%	443	0.7%
Inadequate	2,361	5.2%	1,613	18.2%	321	28.7%	672	12.4%	804	16.1%	5,818	8.8%
Intermediate	3,403	7.5%	1,353	15.3%	167	14.9%	546	10.1%	472	9.5%	5,965	9.0%
Adequate	21,209	46.7%	3,277	37.1%	285	25.4%	2,383	44.1%	1,952	39.1%	29,180	44.2%
Intensive	15,762	34.7%	2,250	25.5%	185	16.5%	1,697	31.4%	1,649	33.1%	21,589	32.7%
Out of state births <sup>3</sup>	2,187	4.8%	181	2.0%	71	6.3%	52	1.0%	0		2,558	3.9%
Prenatal care not reported	299	0.7%	74	0.8%	16		29	0.5%	54	1.1%	480	0.7%

<sup>&</sup>lt;sup>1</sup> Percentages are column (within each race/ethnicity group) percentages.

<sup>&</sup>lt;sup>2</sup> BMI = Body Mass Index calculated as weight (kg) / height (meters)<sup>2</sup>.

<sup>&</sup>lt;sup>3</sup> Out of state births are MN residents giving birth outside the state of MN. Prenatal care data are not available from some states.

Table 4. Counts and Percentages for Delivery Characteristics and Infant Outcomes by Race/Ethnicity, MN Residents, 2019.

				Non-H	ispanic				_			
-	Wh	ite	African A	merican	Americar	n Indian	Asian/I Islan		Hispanio	/Latino	тот	AL
Total births in each group	45,4	104	8,8	40	1,12	20	5,40	07	4,98	89	66,0	33
	#	Col %	#	Col %	#	Col %	#	Col %	#	Col %	#	Col %
Birth Attendant <sup>1</sup>												
MD or DO	38,849	85.6%	7,272	82.3%	1,029	91.9%	4,639	85.8%	4,127	82.7%	56,101	85.0%
Certified Nurse Midwife	5,543	12.2%	1,483	16.8%	75	6.7%	728	13.5%	803	16.1%	8,672	13.1%
Other licensed or lay midwife	285	0.6%	1		1		4		13		320	0.5%
Other (RN, EMT, non-med/ or missing	727	1.6%	84	1.0%	15		36	0.7%	46	0.9%	940	1.4%
Delivery setting <sup>2</sup>												
Hospital	44,059	97.0%	8,779	99.3%	1,111	99.2%	5,367	99.3%	4,924	98.7%	64,460	97.6%
Free-standing birth center	629	1.4%	32	0.4%	1		15		38	0.8%	728	1.1%
Home	696	1.5%	26	0.3%	7		20	0.4%	23	0.5%	811	1.2%
Method of Delivery <sup>3</sup>												
Vaginal	32,069	70.6%	5,816	65.8%	747	66.7%	4,009	74.1%	3,558	71.3%	46,382	70.2%
Vaginal Birth after C-Section	758	1.7%	334	3.8%	13		137	2.5%	107	2.1%	1,358	2.1%
C-Section	12,524	27.6%	2,683	30.4%	359	32.1%	1,257	23.2%	1,322	26.5%	18,220	27.6%
Infant Outcomes												
Gestational Age <sup>4</sup>												
Preterm (< 37 weeks)	3,988	8.8%	968	11.0%	163	14.6%	458	8.5%	479	9.6%	6,089	9.2%
Term (37 - 41 weeks)	41,195	90.7%	7,684	86.9%	948	84.6%	4,935	91.3%	4,487	89.9%	59,475	90.1%
Post Term (42+ weeks)	165	0.4%	176	2.0%	4		5		18		372	0.6%
Birthweight <sup>5</sup>												
Very low birth weight	402	0.9%	192	2.2%	15		73	1.4%	69	1.4%	756	1.1%
Low birth weight	2,265	5.0%	745	8.4%	86	7.7%	386	7.1%	281	5.6%	3,788	5.7%
Normal birth weight	37,419	82.4%	7,253	82.0%	871	77.8%	4,668	86.3%	4,214	84.5%	54,628	82.7%
High birth weight	5,262	11.6%	631	7.1%	147	13.1%	277	5.1%	423	8.5%	6,775	10.3%
Number of Infants at Birth												
Singleton	43,849	96.6%	8,486	96.0%	1,101	98.3%	5,285	97.7%	4,871	97.6%	63,861	96.7%
Twins	1,497	3.3%	336	3.8%	19		122	2.3%	112	2.2%	2,090	3.2%
Triplets or more	58	0.1%	18		0		0		6		82	0.1%

<sup>&</sup>lt;sup>1</sup>DO = Doctor of Osteopathy; Certified Nurse Midwife includes Certified Nurse midwives and Certified (non-nurse) Midwives.

<sup>&</sup>lt;sup>2</sup> Delivery setting missing for 34 births that are not included in this variable.

<sup>&</sup>lt;sup>3</sup> Method of Delivery is missing for 73 births that are not included in this variable.

<sup>&</sup>lt;sup>4</sup> Calculated based on clincian's estimate of completed weeks of gestion. 97 are missing gestational age and are not included in this variable.

<sup>&</sup>lt;sup>5</sup> Birthweight: VLBW < 1,500 gms (3 lbs 5 oz); LBW < 2,500 (5.5 lbs); normal range 2,500 - 3,900 gms High birthweight 4,000+ grams (8 pounds, 13 ounces). 86 missing birth weight.

Table 5. Counts and Percentages<sup>1</sup> for Selected Pregnancy Characteristics by Urban/Rural Residence,<sup>2</sup> MN Residents, 2019.

				Metrop	olitan				Non-Metropolitan (Rural)					
	Large C	entral	Large F	ringe	Medi	um	Sm	all	Microp	olitan	Rur	al	TOTA	AL <sup>2</sup>
Total births in each group	22,5	81	19,5	65	2,28	36	7,70		7,55	54	6,20	58	66,02	22
- ,	#	Col %	#	Col %	#	Col %	#	Col %	#	Col %	#	Col %	#	Col %
Previous Live Births														
None	8,585	38.0%	6,859	35.1%	859	37.6%	2,697	34.7%	2,443	32.3%	1,958	31.2%	23,402	35.4%
One	6,975	30.9%	6,654	34.0%	765	33.5%	2,427	31.2%	2,314	30.6%	1,893	30.2%	21,031	31.9%
Two or more	6,970	30.9%	6,022	30.8%	659	28.8%	2,636	33.9%	2,774	36.7%	2,404	38.4%	21,472	32.5%
Prepregnancy BMI <sup>3</sup>														
Underweight (BMI < 19.0)	823	3.6%	584	3.0%	60	2.6%	265	3.4%	189	2.5%	173	2.8%	2,094	3.2%
Acceptable (BMI 19.0 - 24.9)	9,749	43.2%	7,764	39.7%	898	39.3%	3,014	38.8%	2,636	34.9%	2,208	35.2%	26,271	39.8%
Overweight (BMI 25.0 - 29.9)	6,191	27.4%	5,500	28.1%	609	26.6%	2,124	27.3%	2,067	27.4%	1,686	26.9%	18,180	27.5%
Obese (BMI 30.0 - 40.9)	4,792	21.2%	4,724	24.1%	596	26.1%	1,959	25.2%	2,137	28.3%	1,719	27.4%	15,930	24.1%
Morbidly Obese (BMI > 40.9)	744	3.3%	833	4.3%	107	4.7%	351	4.5%	467	6.2%	401	6.4%	2,903	4.4%
Height/weight missing	282	1.2%	160	0.8%	16		55	0.7%	58	0.8%	81	1.3%	655	1.0%
Trimester Prenatal Care Began														
First	17,599	77.9%	16,498	84.3%	2,005	87.7%	5,438	70.0%	5,813	77.0%	4,645	74.1%	52,001	78.8%
Second	3,858	17.1%	2,295	11.7%	197	8.6%	812	10.5%	1,022	13.5%	753	12.0%	8,939	13.5%
Third	702	3.1%	434	2.2%	47	2.1%	132	1.7%	183	2.4%	195	3.1%	1,695	2.6%
No prenatal care	202	0.9%	98	0.5%	29	1.3%	20	0.3%	46	0.6%	46	0.7%	443	0.7%
Out of state births <sup>4</sup>	88	0.4%	120	0.6%	6		1,337	17.2%	423	5.6%	582	9.3%	2,558	3.9%
Prenatal care not reported	132	0.6%	120	0.6%	2		29	0.4%	67	0.9%	47	0.7%	397	0.6%
Adequacy of Prenatal Care														
None	202	0.9%	98	0.5%	29	1.3%	20	0.3%	46	0.6%	46	0.7%	443	0.7%
Inadequate	2,494	11.0%	1,437	7.3%	173	7.6%	479	6.2%	690	9.1%	541	8.6%	5,818	8.8%
Intermediate	2,184	9.7%	1,667	8.5%	171	7.5%	915	11.8%	577	7.6%	450	7.2%	5,965	9.0%
Adequate	9,333	41.3%	9,349	47.8%	1,232	53.9%	3,143	40.5%	3,365	44.5%	2,758	44.0%	29,180	44.2%
Intensive	8,124	36.0%	6,758	34.5%	673	29.4%	1,831	23.6%	2,376	31.5%	1,825	29.1%	21,589	32.7%
Out of state births <sup>4</sup>	88	0.4%	120	0.6%	6		1,337	17.2%	423	5.6%	582	9.3%	2,558	3.9%
Prenatal care not reported	156	0.7%	136	0.7%	2		43	0.6%	77	1.0%	66	1.1%	480	0.7%

<sup>&</sup>lt;sup>1</sup> Percentages are column (within each urban/rural group) percentages.

<sup>&</sup>lt;sup>2</sup> Eleven individuals are missing county of residence and are not included in total.

<sup>&</sup>lt;sup>3</sup> BMI = Body Mass Index calculated as weight (kg) / height (meters)<sup>2</sup>.

<sup>&</sup>lt;sup>4</sup> Out of state births are MN residents giving birth outside the state of MN. Prenatal care data are not available from some states.

Table 6. Counts and Percentages<sup>1</sup> for Delivery Characteristics and Infant Outcomes by Urban/Rural Residence, MN Residents, 2019.

		-		Metrop	olitan	-				Non-Metropolitan (Rural)				
	Large C	entral	Large F	ringe	Medi	um	Sma	all	Microp	olitan	Non-C	Core	TOTA	AL <sup>2</sup>
Total births in each group	22,5	81	19,5	65	2,28	36	7,76	58	7,55	54	6,26	58	66,0.	22
	#	Col %	#	Col %	#	Col %	#	Col %	#	Col %	#	Col %	#	Col %
Birth Attendant <sup>3</sup>														
MD or DO	18,153	80.4%	17,228	88.1%	2,101	91.9%	6,426	82.7%	6,708	88.8%	5,474	87.3%	56,101	85.0%
Certified Nurse Midwife	4,117	18.2%	2,075	10.6%	147	6.4%	1,107	14.3%	642	8.5%	584	9.3%	8,672	13.1%
Other licensed or lay midwife	77	0.3%	50	0.3%	9		50	0.6%	59	0.8%	75	1.2%	320	0.5%
Other (RN, EMT, non-med/ or missing	234	1.0%	212	1.1%	29	1.3%	185	2.4%	145	1.9%	135	2.2%	940	1.4%
Delivery setting <sup>4</sup>														
Hospital	21,983	97.4%	19,173	98.0%	2,243	98.1%	7,594	97.8%	7,380	97.7%	6,076	96.9%	64,460	97.6%
Free-standing birth center	438	1.9%	201	1.0%	0		41	0.5%	30	0.4%	18		728	1.1%
Home	155	0.7%	178	0.9%	43	1.9%	129	1.7%	139	1.8%	167	2.7%	811	1.2%
Method of Delivery <sup>5</sup>														
Vaginal	15,966	70.7%	13,659	69.8%	1,596	69.8%	5,458	70.3%	5,302	70.2%	4,396	70.1%	46,382	70.3%
Vaginal Birth after C-Section	527	2.3%	347	1.8%	53	2.3%	172	2.2%	141	1.9%	118	1.9%	1,358	2.1%
C-Section	6,058	26.8%	5,546	28.3%	637	27.9%	2,131	27.4%	2,094	27.7%	1,748	27.9%	18,220	27.6%
Infant Outcomes														
Gestational Age <sup>6</sup>														
Preterm (< 37 weeks)	2,116	9.4%	1,729	8.8%	228	10.0%	745	9.6%	699	9.3%	571	9.1%	6,089	9.2%
Term (37 - 41 weeks)	20,248	89.7%	17,739	90.7%	2,048	89.6%	6,959	89.6%	6,815	90.2%	5,656	90.2%	59,475	90.1%
Post Term (42+ weeks)	188	0.8%	80	0.4%	6		53	0.7%	27	0.4%	18		372	0.6%
Birthweight <sup>7</sup>														
Very low birth weight	325	1.4%	178	0.9%	25	1.1%	86	1.1%	90	1.2%	52	0.8%	756	1.1%
Low birth weight	1,436	6.4%	1,066	5.4%	130	5.7%	415	5.3%	391	5.2%	350	5.6%	3,788	5.7%
Normal birth weight	18,719	82.9%	16,198	82.8%	1,866	81.6%	6,421	82.7%	6,241	82.6%	5,173	82.5%	54,628	82.7%
High birth weight	2,063	9.1%	2,100	10.7%	262	11.5%	841	10.8%	822	10.9%	686	10.9%	6,775	10.3%
Number of Infants at Birth														
Singleton	21,798	96.5%	18,887	96.5%	2,224	97.3%	7,508	96.7%	7,351	97.3%	6,082	97.0%	63,861	96.7%
Twins	765	3.4%	645	3.3%	62	2.7%	245	3.2%	192	2.5%	181	2.9%	2,090	3.2%
Triplets or more	18		33	0.2%	0		15		11		5		82	0.1%

<sup>&</sup>lt;sup>1</sup> Percentages are column (within each urban/rural group) percentages.

<sup>&</sup>lt;sup>2</sup> Eleven individuals are missing county of residence and are not included in total.

<sup>&</sup>lt;sup>3</sup> DO = Doctor of Osteopathy; Certified Nurse Midwife includes Certified Nurse midwives and Certified (non-nurse) Midwives.

<sup>&</sup>lt;sup>4</sup> Delivery setting missing 34 that are not included in this variable

<sup>&</sup>lt;sup>5</sup> Method of Delivery is missing for 73 births that are not included inthis variable.

<sup>&</sup>lt;sup>6</sup> Calculated based on clincian's estimate of completed weeks of gestion. 97 are missing gestational age and are not included in this variable.

<sup>&</sup>lt;sup>7</sup> Birthweight: VLBW < 1,500 gms (3 lbs 5 oz); LBW < 2,500 (5.5 lbs); normal range 2,500 - 3,900 gms High birthweight 4,000+ grams (8 pounds, 13 ounces). 86 missing birth weight

Table 7. Route of Delivery by Characteristics of Women Giving Birth, MN Residents,

	Vagi	nal	VBA	AC	C-Sec	tion
	#	Row %	#	Row %	#	Row %
All Births	46,382	70.2%	1,358	2.1%	18,220	27.6%
Race / Ethnicity						
White	32,069	70.7%	758	1.7%	12,524	27.6%
African American	5,816	65.8%	334	3.8%	2,683	30.4%
American Indian	747	66.8%	13		359	32.1%
Asian/Pacific Islander	4,009	74.2%	137	2.5%	1,257	23.3%
Other/Unknown	183	68.5%	9		75	28.1%
Hispanic/Latino	3,558	71.3%	107	2.1%	1,322	26.5%
Age of Mother						
< 18 years	362	87.9%	0		50	12.1%
18-19 years	1,129	81.2%	3		258	18.6%
Teen Mom Total	1,491	82.7%	3		308	17.1%
20-24 years	6,791	77.2%	115	1.3%	1,895	21.5%
25-29 years	14,077	73.8%	351	1.8%	4,656	24.4%
30-34 years	15,921	68.8%	566	2.4%	6,667	28.8%
35-39 years	6,894	62.6%	274	2.5%	3,840	34.9%
40-44 years	1,132	58.5%	45	2.3%	757	39.1%
45+ years	71	42.0%	4		94	55.6%
Educational Attainment <sup>2</sup>						
< High School	4,953	72.7%	210	3.1%	1,653	24.3%
HS Diploma / GED	7,876	70.7%	238	2.1%	3,031	27.2%
Some College, No degree	8,122	70.0%	217	1.9%	3,257	28.1%
Associate Degree	5,449	68.1%	181	2.3%	2,377	29.7%
Bachelor's Degree	13,061	71.1%	344	1.9%	4,974	27.1%
Graduate / Professional Degree	6,701	69.0%	160	1.6%	2,844	29.3%
Unknown	220	70.5%	8		84	26.9%
Prepregnancy BMI						
Underweight (BMI < 19.0)	1,672	80.0%	27	1.3%	391	18.7%
Acceptable (BMI 19.0 - 24.9)	20,010	76.2%	528	2.0%	5,714	21.8%
Overweight (BMI 25.0 - 29.9)	12,742	70.1%	403	2.2%	5,023	27.6%
Obese (BMI 30.0 - 40.9)	10,027	63.0%	355	2.2%	5,544	34.8%
Morbidly Obese (BMI > 40.9)	1,481	51.0%	34	1.2%	1,387	47.8%
Height or weight not reported	450	72.3%	11		161	25.9%
Adequacy of Prenatal Care <sup>3</sup>						
No Prenatal Care	310	70.1%	14		118	26.7%
Inadequate	4,086	70.5%	171	3.0%	1,539	26.6%
Intermediate	4,511	75.6%	160	2.7%	1,292	21.7%
Adequate	21,540	73.8%	628	2.2%	7,010	24.0%
Intensive	13,839	64.1%	373	1.7%	7,371	34.2%
Out of state births <sup>4</sup>	1,786	69.8%	0		771	30.2%
Previous Live Births						
No previous births	16,490	70.5%	4		6,902	29.5%
One previous live birth	14,581	69.4%	518	2.5%	5,922	28.2%
Two or more previous births  NOTE: Row percentages (route of delive	15,239	71.0%	835	3.9%	5,378	25.1%

**NOTE:** Row percentages (route of delivery within each category). Missing data for each variable not included except where shown [age (8), APNCU (441), previous birth (91)]. -- are not calcuated due to <

<sup>&</sup>lt;sup>1</sup> Route of delivery missing for 73 women and not included in the table. VBAC = Vaginal Birth after

<sup>&</sup>lt;sup>2</sup> Educational attainment reported for mothers age 25 years and older.

<sup>&</sup>lt;sup>3</sup> Adequacy is determined using the Adequacy of Prenatal Care Utilization (APNCU) Index and is not comparable to GINDEX Index used in previous years. See glossary for definitions.

<sup>&</sup>lt;sup>4</sup> Out of state births are MN residents giving birth outside the state of MN. Prenatal care data not available

Table 8. Counts and Percentages<sup>1</sup> of Selected Birth Outcomes by Demographic Characteristics of Women Giving Birth, MN Residents, 2019.

	Pret	erm²	Low Birt	hweight <sup>3</sup>	High Birt	hweight <sup>3</sup>
	#	Row %	#	Row %	#	Row %
All Births	4,544	6.9%	4,544	6.9%	6,775	10.3%
Race and Ethnicity						
White	3,988	8.8%	2,667	5.9%	5,262	11.6%
African American	968	11.0%	937	10.6%	631	7.2%
American Indian	163	14.6%	101	9.0%	147	13.1%
Asian/Pacific Islander	458	8.5%	459	8.5%	277	5.1%
Other/Unknown	33	12.5%	30	11.2%	35	13.1%
Hispanic/Latino	479	9.6%	350	7.0%	423	8.5%
Age of Mother						
< 18 years	39	9.5%	49	11.9%	24	5.8%
18-19 years	139	10.0%	139	10.0%	92	6.6%
Teen Mom Total	178	9.9%	188	10.4%	116	6.4%
20-24 years	888	10.1%	671	7.6%	704	8.0%
25-29 years	1,675	8.8%	1,211	6.3%	1,836	9.6%
30-34 years	1,987	8.6%	1,489	6.4%	2,582	11.2%
35-39 years	1,088	9.9%	797	7.2%	1,338	12.2%
40-44 years	237	12.2%	163	8.4%	186	9.6%
45+ years	35	20.6%	24	14.0%	13	
Educational Attainment <sup>4</sup>						
< High School	722	10.6%	622	9.1%	513	7.5%
HS Diploma / GED	1,169	10.5%	910	8.2%	1,025	9.2%
Some College, No degree	1,256	10.8%	945	8.2%	1,112	9.6%
Associate Degree	728	9.1%	493	6.2%	862	10.8%
Bachelor's Degree	1,437	7.8%	1,013	5.5%	2,145	11.7%
Graduate / Professional Degree	741	7.6%	534	5.5%	1,077	11.1%
Unknown	36	11.5%	27	8.5%	41	13.0%
Prepregnancy BMI						
Underweight (BMI < 19.0)	175	8.4%	196	9.4%	80	3.8%
Acceptable (BMI 19.0 - 24.9)	2,100	8.0%	1,720	6.6%	2,222	8.5%
Overweight (BMI 25.0 - 29.9)	1,607	8.8%	1,183	6.5%	1,986	10.9%
Obese (BMI 30.0 - 40.9)	1,722	10.8%	1,167	7.3%	2,011	12.6%
Morbidly Obese (BMI > 40.9)	384	13.2%	206	7.1%	405	14.0%
Height or weight not reported	101	16.5%	72	11.3%	71	11.1%
Adequacy of Prenatal Care <sup>5</sup>						
None	129	31.5%	87	19.8%	30	6.8%
Inadequate	601	10.3%	522	9.0%	479	8.3%
Intermediate	302	5.1%	250	4.2%	679	11.4%
Adequate	963	3.3%	853	2.9%	3,526	12.1%
Intensive	3,655	16.9%	2,506	11.6%	1,733	8.0%
Out of state births	382	15.0%	287	11.2%	272	10.6%
Previous Live Births						
No previous births	2,354	10.1%	1,973	8.4%	1,838	7.9%
One previous birth	1,655	7.9%	1,167	5.6%	2,359	11.2%
Two or more previous births	2,068	9.6%	1,398	6.5%	2,569	12.0%

<sup>&</sup>lt;sup>1</sup> Percentages are row percentages (outcome within each characteristic category).

 $<sup>^{\</sup>rm 2}$  Preterm are infants born after 20 weeks but before 37 weeks of gestation.

<sup>&</sup>lt;sup>3</sup> Low birthweight < 2,500 grams (5.5 pounds). High birthweight >= 4,000 grams (8 pounds, 13 ounces). 86 are missing birthweight.

<sup>&</sup>lt;sup>4</sup> Educational attainment reported for mothers age 25 years and older.

<sup>&</sup>lt;sup>5</sup> Adequacy is determined using the Adequacy of Prenatal Care Utilization (APNCU) Index, and is not comparable to GINDEX Index used in previous years. See glossary for for more information. Out of state births are MN residents giving birth outside the state of MN. Prenatal care data not available from some states. There are 441 women missing data and not included in this variable.

Table 9. Number of Race and Hispanic Checkboxes Selected by Women Who Gave Birth, Minnesota Residents, 2019.

	Number that sele	ected <sup>1</sup>
	each checkbo	ох
	2018	2019
Race Checkboxes		
White	50,385	49,073
African American	4,774	4,934
Somali	2,621	2,666
Ethiopian	690	749
Liberian	363	308
Sudanese	78	76
Nigerian	171	148
Other African	654	616
American Indian	1,709	1,662
Asian Indian	961	914
Chinese	411	452
Filipino	237	270
Japanese	94	77
Korean	272	281
Vietnamese	357	308
Hmong	2,222	2,202
Cambodian	198	196
Laotian	137	158
Other Asian	791	776
Hawaiian	31	24
Guamanian/Chamorro	17	15
Samoan	5	4
Other Pacific Islander	93	99
Other Race	2,143	2,178
Unknown Race	205	221
Hispanic/Latino Checkboxes		
Mexican	3,226	3,201
Cuban	60	51
Puerto Rican	215	244
Other Hispanic	1,346	1,494
Not Hispanic/Latino	62,156	60,698
Unknown/Nothing Selected	345	345

<sup>&</sup>lt;sup>1</sup> More than one category may be selected, thus counts sum to more than the Minnesota resident birth **Note:** Categories correspond to those listed on the birth certificate worksheet and are self-selected by each woman. Counts are the number of records on which that checkbox was indicated. Race(s) chosen do not necessarily correspond to birth country of mother.

**Note:** Classification of the checkboxes changed from 2016 to 2017. In 2016, all checkboxes selected were documented regardless of other information provided by the woman. In 2017, checkboxes are edited and corrected for inconsistencies to reflect complete race/ethnicity information provided by each woman. Edited codes are the national standard for reporting vital statistics by race/ethnicity.

Table 10. Live Births by Birth Country<sup>1</sup> of Women Giving Birth, MN Residents, 2019.

Woman's Birth Country	Number of Women Born in Each Country
United States	53,021
Foreign-Born	13,012
Somalia	2,403
Mexico	1,417
Ethiopia	987
Thailand	865
India	797
Kenya	449
Liberia	380
Laos	355
Guatemala	338
China	284
Burma	277
Unknown	234
Vietnam	229
Ecuador	226
El Salvador	209
Canada	188
Philippines	184
South Korea	182
Honduras	159
Nigeria	154
Russia	129
Ukraine	106
Germany	96
Cameroon	88
Cambodia	87
Columbia	80
All Others	2,109

<sup>&</sup>lt;sup>1</sup>The list represents home countries of women giving birth where there were at least 75 women from

Table 11. Selected Characteristics and Outcomes for Women Who Smoked Before or During Pregnancy,

MInnesota Residents, 2019.

willinesota Residents, 20	Total	% that Smoked	d Before or	% Smokers	that Quit	% Smokers	that Quit
	Births	During Pre	gnancy	Prior to Pr	egnancy	During Pre	egnancy
		#	1.0%	#	%	#	%
All Births	66,033	5,990	9.1%	1,219	20.4%	971	16.2%
Race and Ethnicity <sup>2</sup>							
White	45,404	4,532	10.0%	973	21.5%	736	16.2%
African American	8,840	576	6.5%	74	12.8%	105	18.2%
American Indian	1,120	471	42.1%	42	8.9%	47	10.0%
Asian/Pacific Islander	5,407	139	2.6%	50	36.0%	25	18.0%
Other/Unknown	273	19		4		1	
Hispanic/Latino	4,989	253	5.1%	76	30.0%	57	22.5%
Age of Mother							
< 18 years	412	47	11.4%	13		20	42.6%
18-19 years	1,390	256	18.4%	62	24.2%	50	19.5%
20-24 years	8,811	1,428	16.2%	331	23.2%	256	17.9%
25-29 years	19,098	1,922	10.1%	388	20.2%	297	15.5%
30-34 years	23,183	1,481	6.4%	270	18.2%	222	15.0%
35-39 years	11,018	735	6.7%	142	19.3%	110	15.0%
40+ years	2,112	118	5.6%	13		15	
Trimester PNC began							
First	52,001	4,194	8.1%	967	23.1%	684	16.3%
Second	8,939	1,021	11.4%	143	14.0%	174	17.0%
Third	1,695	271	16.0%	24	8.9%	32	11.8%
None	443	161	36.3%	10		14	
Out of state births <sup>3</sup>	2,558	305	11.9%	67	22.0%	57	18.7%
Not reported	397	38	9.6%	8		10	
<b>Delivery Method</b>							
Vaginal	42,272	4,012	9.5%	829	20.7%	638	15.9%
VBAC <sup>4</sup>	1,271	85	6.7%	23	27.1%	8	
C-section	16,299	1,891	11.6%	367	19.4%	324	17.1%
Preterm							
< 37 weeks	6,089	848	13.9%	137	16.2%	158	18.6%
Low Birth Weight							
< 2500 grams	4,544	703	15.5%	96	13.7%	134	19.1%

<sup>&</sup>lt;sup>1</sup> Percentages are row percentages (smoking within each characteristic category).

<sup>&</sup>lt;sup>2</sup> Other/unknown races are not shown due to small numbers (n = 19 total smokers).

<sup>&</sup>lt;sup>3</sup> Out of state births are MN residents giving birth outside the state of MN. Prenatal care data not available from some states.

<sup>&</sup>lt;sup>4</sup> VBAC - Vaginal Birth After [previous] Cesarean-Section.

Table 12. Pregnancies Resulting from Infertility Treatments, MN Residents, 2019.

	-	Bir	th Purality	
	Total	Singleton	Twin	Triplet+ <sup>2</sup>
Pregnancies <sup>1</sup>				
Total pregnancies	64,952	63,861	1,063	28
# resulting from infertility treatments	1,622	1,426	185	11
% resulting from infertility treatments	2.5%	2.2%	17.4%	
Age of Mother				
<20 years	0	0	0	0
20-24 years	14	12	2	0
25-29 years	212	177	30	5
30-34 years	661	577	79	5
35-39 years	504	450	53	1
40-44 years	180	165	15	0
45+ years	51	45	6	0
Treatment Type				
Drugs/Artificial Insemination Only	534	478	52	4
Assisted Reproductive Technologies Only	1,054	923	126	5
Both Methods	18	14	3	1
Method Not Specified	16	11	4	1

Number of pregnancies, not number of births. Each mother is counted only once regardless of the plurality of the pregnancy.

 $<sup>^{2}</sup>$  Due to the small numbers triplets or more are combined. -- rates not calculated due to < 20.

## **Fertility Tables**

Table 1: Pregnancies, Pregnancy Outcome, Birth/Fertility Rates, Minnesota Residents, 2005 - 2019

Table 2: Pregnancies and Pregnancy Rates by Age of Mother, Minnesota Residents, 2009 - 2019



Fertility Table 1. Total Reported Pregnancies by Pregnancy Outcome, Pregnancy Rate, and Fertility Rate, MN Residents, 2005 - 2019.

	Total Reported Pregnancies <sup>1</sup>	Live Births	Induced Abortions	Fetal Deaths <sup>2</sup>	Female <sup>3</sup> Population Ages 15-44	Pregnancy Rate <sup>4</sup>	Fertility Rate⁵
Year							
2005	83,555	70,920	12,306	329	1,092,604	76.5	64.9
2006	86,814	73,515	12,948	351	1,070,877	81.1	68.6
2007	86,832	73,675	12,770	387	1,058,541	82.0	69.6
2008	84,653	72,382	11,896	375	1,048,477	80.7	69.0
2009	82,353	70,617	11,391	345	1,046,457	78.7	67.5
2010	79,329	68,407	10,570	352	1,045,681	75.9	65.4
2011	78,942	68,416	10,150	376	1,044,201	75.6	65.5
2012	78,906	68,783	9,758	365	1,046,298	75.4	65.7
2013	78,600	69,183	9,030	387	1,049,636	74.9	65.9
2014	79,534	69,916	9,180	438	1,053,340	75.5	66.4
2015	79,197	69,835	8,898	464	1,054,063	75.1	66.3
2016	79,219	69,746	9,053	420	1,054,178	75.1	66.2
2017	78,227	68,603	9,218	406	1,066,806	73.3	64.3
2018	76,636	67,348	8,896	392	1,074,005	71.4	62.7
2019	75,430	66,033	9,034	363	1,081,656	69.7	61.0
2019							
Race/ethnicity							
White	49,306	45,404	3,696	206	816,690	60.4	55.6
Black	11,429	8,840	2,512	77	96,698	118.2	91.4
American Indian	1,302	1,120	172	10	14,709	88.5	76.1
Asian/Pacific Islander	6,094	5,407	663	24	81,012	75.2	66.7
Other/Unknown	1,411	273	1,123	15	N/A <sup>6</sup>		
Hispanic (any race)	5,888	4,989	868	31	72,547	81.2	68.8
Woman's age group <sup>7</sup>							
<15 years	36	12	24	0	N/A <sup>6</sup>		
, 15-19 years	2,544	1,790	736	18	175,152	14.5	10.2
20-24 years	11,289	8,811	2,429	49	177,770	63.5	49.6
25-29 years	21,773	19,098	2,589	86	182,988	119.0	104.4
30-34 years	25,171	23,183	1,869	119	188,618	133.4	122.9
35-39 years	12,170	11,018	1,089	63	188,621	64.5	58.4
40-44 years	2,231	1,941	265	25	160,856	13.9	12.1
45+ years	201	171	28	2	N/A <sup>6</sup>		

<sup>&</sup>lt;sup>1</sup> Includes Live Births, Fetal Deaths and Induced Abortions.

<sup>&</sup>lt;sup>2</sup> Fetal Death counts include all reported to the Minnesota Department of Health regardless of gestational age.

<sup>&</sup>lt;sup>3</sup> Total MN Population count by year from MN State Demographic Center: https://mn.gov/admin/demography/data-by-topic/population-data/our-estimates. Female population for race/ethnicity and age groups retrieved from CDC WONDER (wonder.cdc.gov) Bridged-Race Population Estimates.

<sup>&</sup>lt;sup>4</sup> Number of pregnancies per 1,000 women ages 15 - 44 years.

<sup>&</sup>lt;sup>5</sup> Number of live births per 1,000 women ages 15 - 44 years.

<sup>&</sup>lt;sup>6</sup> Population estimates for these age groups not calculated because population denominator data not available.

Fertility Table 2. Pregnancy Rates by Age of Woman over Time, Minnesota Residents, 2009-2019.

Year/		Age of Woman									
Event	Total —	<15	15-19	20-24	25-29	=			Unkwr		
2009											
Reported Pregnancies <sup>1</sup>	82,353	81	5,981	18,061	25,964	20,672	9,250	2,340	4		
Age Specific Pregnancy Rate <sup>2</sup>	78.7	***	33.1	97.6	144.6	130.0	56.3	13.1	***		
2010											
Reported Pregnancies <sup>1</sup>	79,329	89	5,351	16,455	25,102	21,031	9,023	2,275	3		
Age Specific Pregnancy Rate <sup>2</sup>	75.9	***	29.9	94.1	135.6	124.9	55.6	13.0	***		
2011											
Reported Pregnancies <sup>1</sup>	78,942	72	4,743	15,622	24,946	22,090	9,102	2,356	11		
Age Specific Pregnancy Rate <sup>2</sup>	75.6	***	26.4	90.6	134.9	125.9	57.9	13.5	***		
2012											
Reported Pregnancies <sup>1</sup>	78,906	77	4,392	15,501	24,543	22,865	9,189	2,333	6		
Age Specific Pregnancy Rate <sup>2</sup>	75.4	***	24.7	88.7	134.3	126.1	58.4	13.5	***		
2013											
Reported Pregnancies <sup>1</sup>	78,600	57	3,878	14,698	24,416	23,771	9,604	2,174	2		
Age Specific Pregnancy Rate <sup>2</sup>	74.9	***	22.1	82.7	135.5	128.0	59.6	12.9	***		
2014											
Reported Pregnancies <sup>1</sup>	79,534	53	3,561	14,330	24,435	24,726	10,182	2,243	4		
Age Specific Pregnancy Rate <sup>2</sup>	75.5	***	20.4	80.0	135.9	131.0	61.5	13.6	***		
2015											
Reported Pregnancies <sup>1</sup>	79,197	38	3,161	13,534	24,119	25,357	10,805	2,181	2		
Age Specific Pregnancy Rate <sup>2</sup>	75.1	***	18.1	75.2	135.7	133.2	63.2	13.6	***		
2016											
Reported Pregnancies <sup>1</sup>	79,219	41	3,004	12,939	23,975	25,552	11,453	2,255	C		
Age Specific Pregnancy Rate <sup>2</sup>	75.1	***	17.2	71.9	135.1	134.8	64.8	14.4	***		
2017		<15	15-19	20-24	25-29	30-34	35-39	40-44	45+/unk		
Reported Pregnancies <sup>3</sup>	78,227	25	2,878	12,442	23,314	25,519	11,683	2,155	175		
Age Specific Pregnancy Rate <sup>2</sup>	73.3	***	16.4	69.4	129.0	138.4	63.4	13.7	***		
2018		<15	15-19	20-24	25-29	30-34	35-39	40-44	45+/unk		
Reported Pregnancies3	76,636	33	2,496	11,610	22,908	25,251	11,988	2,135	208		
Age Specific Pregnancy Rate2		***	14.3	65.3	125.2	133.9	63.6	13.3	***		
2019		<15	15-19	20-24	25-29	30-34	35-39	40-44	45+/unk		
Reported Pregnancies <sup>3</sup>	75,430	36	2,544	11,289	21,773	25,171	12,170	2,231	216		
Age Specific Pregnancy Rate <sup>2</sup>		***	14.5	63.5	119.0	133.4	64.5	13.9	***		

<sup>&</sup>lt;sup>1</sup> Includes live births, all reported fetal deaths and induced abortions

<sup>&</sup>lt;sup>2</sup> Pregnancies within a specific age group per 1,000 female population of that same age group. Total rate is calculated per 1,000 female population age 15-44.

<sup>&</sup>lt;sup>3</sup> Beginning with 2017, the older age groups 40+ split to 40-44 and 45+ in order to isolate those in the 15-44 range.

<sup>\*\*\*</sup>Appropriate age-specific female population is not available for use in rate calculations.

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#### **Mortality Tables**

- Table 1. Deaths by County of Residence and County of Occurrence, Minnesota Residents, 2019
- Table 2. Deaths from Selected Causes by Age Group and Sex, Minnesota Residents, 2019
- Table 3. Leading Causes of Death, Death Rates, and Rank Order, Minnesota and U.S., 2019
- Table 4. Leading Causes of Death by Age Groups, Minnesota Residents, 2019
- Table 5a. Deaths Due to Selected Causes by Race/Ethnicity, MN Residents, 2019
- Table 5b. Cause-Specific Mortality Rates by Race/Ethnicity, MN Residents, 2019
- Table 6a. Deaths Due to Selected Causes by Rural/Urban Residence, MN Residents, 2019
- Table 6b. Cause-Specific Mortality Rates by Rural/Urban Residence, MN Residents, 2019



Table 1. Resident Deaths Distributed by County of Occurrence (n=45,516); Deaths by County of Occurrence Distributed by Place of Residence (n=45,380), Minnesota 2019.

		Deaths to	o MN County Res	idents	<b>Deaths Occurring in Each County</b>					
		acro	oss Place of Deatl	h	across Place of Residence					
			Outside County o	of Residence		Other	Out of			
		Within	Within	Outside		Minnesota	State			
County	Total	County	Minnesota	Minnesota	Total <sup>1</sup>	Residents	Residents			
State Total	45,499	35,525	8,297	1,677	45,380	8,297	1,558			
Aitkin	253	160	84	9	187	26	1			
Anoka	2,317	1,698	584	35	2,096	382	16			
Becker	405	308	21	76	336	25	3			
Beltrami	405	317	33	55	402	81	4			
Benton	393	284	106	3	345	59	2			
Big Stone	88	64	5	19	71	4	3			
Blue Earth	492	425	62	5	622	190	7			
Brown	307	265	41	1	285	19	1			
Carlton	373	254	112	7	292	35	3			
Carver	571	369	194	8	465	88	8			
Cass	339	163	145	31	186	17	6			
Chippewa	160	124	32	4	134	8	2			
Chisago	484	362	113	9	471	101	8			
Clay	486	310	13	163	341	12	19			
Clearwater	107	65	29	13	76	10	1			
Cook	57	41	14	2	48	4	3			
Cottonwood	158	115	18	25	129	14	0			
Crow Wing	723	568	132	23	648	69	11			
Dakota	2,808	1,861	908	39	2,124	236	27			
Dodge	163	98	64	1	108	10	0			
Douglas	474	406	47	21	481	69	6			
Faribault	173	124	44	5	142	12	6			
Fillmore	227	164	50	13	180	15	1			
Freeborn	345	276	63	6	298	14	8			
Goodhue	535	418	114	3	481	58	5			
Grant	65	35	24	6	36	1	0			
Hennepin	8,989	8,129	751	109	10,664	2,275	260			
Bloomington	846	480	357	9	602	114	8			
Edina	493	371	116	6	1,096	706	19			
Minneapolis	2,579	1,905	638	36	3,900	1,837	158			
Richfield	300	141	155	4	154	13	0			
Houston	192	131	7	54	149	5	13			
Hubbard	234	171	38	25	200	24	5			
Isanti	346	222	124	0	245	22	1			
Itasca	508	390	112	6	430	38	2			
Jackson	115	77	20	18	82	4	1			
Kanabec	175	110	63	2	126	14	2			
Kandiyohi	389	322	62	5	349	27	0			
Kittson	60	46	5	9	48	2	0			
Koochiching	165	116	45	4	120	3	1			
Lac Qui Parle	78	60	13	5	66	6	0			
Lake	117	68	46	3	86	18	0			
Lake of the Woods	49	24	8	17	29	4	1			
Le Sueur	263	132	127	4	145	13	0			
Lincoln	92	75	5	12	82	7	0			
Lyon	231	172	23	36	184	10	2			
McLeod	246	191	42	13	206	8	7			
Mahnomen	353	275	76	2	306	29	2			

Table 1. Resident Deaths Distributed by County of Occurrence (n=45,516); Deaths by County of Occurrence Distributed by Place of Residence (n=45,380), Minnesota 2019.

			o MN County Res		Deaths Occurring in Each County across Place of Residence				
	_		Outside County	of Residence		Other	Out of		
		Within	Within	Outside		Minnesota	State		
County	Total	County	Minnesota	Minnesota	Total <sup>1</sup>	Residents	Residents		
Marshall	66	39	11	16	48	7	2		
Martin	98	50	14	34	53	1	2		
Meeker	232	170	58	4	200	30	0		
Mille Lacs	319	224	91	4	275	51	0		
Morrison	338	243	89	6	258	14	1		
Mower	433	332	97	4	346	13	1		
Murray	94	65	15	14	81	15	1		
Nicollet	297	190	102	5	222	32	0		
Nobles	182	124	19	39	147	19	4		
Norman	88	66	9	13	71	2	3		
Olmsted	1,082	1,017	44	21	2,028	662	349		
Otter Tail	669	500	76	93	535	23	12		
Pennington	144	113	8	23	132	19	0		
Pine	323	197	118	8	209	10	2		
Pipestone	110	89	7	14	98	6	3		
Polk	371	250	15	106	277	19	8		
Pope	140	107	30	3	120	13	0		
Ramsey	4,333	3,689	600	44	5,335	1,410	236		
St. Paul	2,134	1,755	358	21	3,481	1,501	225		
Red Lake	36	1,733	8	9	20	1,501	0		
Redwood	175	117	44	14	129	9	3		
Renville	185	140	42	3	150	8	2		
Rice	532	368	151	13	424	54	2		
Rock	135	110	2	23	133	18	5		
Roseau	152	125	5	22	131	5	1		
		1,944	94	28	2,628	357	327		
St. Louis  Duluth	2,066 <i>915</i>	1,944 861	47	7		581			
			210	14	1,757		315		
Scott	749	525			653	116	12		
Sherburne	590	366	218	6	476	107	3		
Steeres	136	88	48	0	103	13	2		
Stearns	1,128	981	131	16	1,690	689	20		
Steele	315	242	71	2	281	37	2		
Stevens	99	66	28	5	70	3	1		
Swift	112	87	25	0	95	8	0		
Todd	216	125	84	7	153	26	2		
Traverse	61	48	4	9	52	2	2		
Wabasha	199	124	71	4	145	7	14		
Wadena	197	144	48	5	191	46	1		
Waseca	188	140	47	1	157	14	3		
Washington	1,746	1,150	549	47	1,447	254	43		
Watonwan	115	76	38	1	88	12	0		
Wilkin	83	59	1	23	82	2	21		
Winona	428	337	48	43	365	14	14		
Wright	918	619	285	14	696	71	6		
Yellow Medicine	109	75	23	11	85	10	0		

<sup>&</sup>lt;sup>1</sup> Total deaths occurring in each county also includes deaths to MN county residents within county of residence (second column).

**NOTE:** Total deaths by county excludes those for whom county of residence (n=15) or both county of residence and county of occurance (n=2) are unknown.

Table 2. Deaths from Selected Causes by Age Group and Sex, Minnesota Residents, 2019.

		Cause of Death		Total	< 1	1-4	5-9	10-14	15-19	20-34	35-49	50-64	65-79	80+
			Sex											
		ALL CAUSES, Total	Т	44,553	292	66	31	42	149	967	1,779	6,147	12,628	22,452
ICD10			M	22,564	157	37	15	29	105	696	1,099	3,766	7,193	9,467
Code			F	21,989	135	29	16	13	44	271	680	2,381	5,435	12,985
A00-	ı.	INFECTIOUS AND	т	724	9	6	0	0	1	14	26	119	237	312
B99		PARASITIC DISEASES	М	369	5	4	0	0	1	11	16	77	119	136
<b>D</b> 33		TANASTITE DISEASES	F	355	4	2	0	0	0	3	10	42	118	176
A00-		Intestinal Infections	Т	97	2	3	0	0	0	1	5	10	25	51
A09			М	45	2	2	0	0	0	1	4	6	8	22
			F	52	0	1	0	0	0	0	1	4	17	29
A40-		Septicemia	т	407	3	2	0	0	1	4	11	44	132	210
A41			M	201	1	1	0	0	1	4	7	24	71	92
			F	206	2	1	0	0	0	0	4	20	61	118
B15-		Viral Hepatitis	т	41	0	0	0	0	0	1	1	21	16	2
B19			M	27	0	0	0	0	0	1	1	15	9	1
			F	14	0	0	0	0	0	0	0	6	7	1
Re-		Other Infectious	т	179	4	1	0	0	0	8	9	44	64	49
sid-		and Parasitic	M	96	2	1	0	0	0	5	4	32	31	21
ual		Diseases and Sequelae	F	83	2	0	0	0	0	3	5	12	33	28
C00-	II.	NEOPLASMS	т	10,201	3	10	7	4	8	78	341	2,027	4,180	3,543
D48	11.	ITLOI LAJIVIJ	M	5,452	2	4	3	3	4	42	164	1,101	2,299	1,830
D-10			F	4,749	1	6	4	1	4	36	177	926	1,881	1,713
C00-		Malignant Neoplasms	т	9,881	3	9	6	4	8	74	339	1,992	4,087	3,359
C97		•	М	5,274	2	3	3	3	4	40	163	1,079	2,240	1,737
			F	4,607	1	6	3	1	4	34	176	913	1,847	1,622

Table 2. Deaths from Selected Causes by Age Group and Sex, Minnesota Residents, 2019.

	Cause of Death		Total	< 1	1-4	5-9	10-14	15-19	20-34	35-49	50-64	65-79	80+
		Sex											
	ALL CAUSES, Total	Т	44,553	292	66	31	42	149	967	1,779	6,147	12,628	22,452
ICD10		M	22,564	157	37	15	29	105	696	1,099	3,766	7,193	9,467
Code		F	21,989	135	29	16	13	44	271	680	2,381	5,435	12,985
	Malignant Neoplasms contin	ued											
C00-	of Lip, Oral Cavity,	Т	180	0	0	0	0	0	2	7	55	70	46
C14	and Pharynx	M	116	0	0	0	0	0	1	3	38	47	27
		F	64	0	0	0	0	0	1	4	17	23	19
C15	of Esophagus	т	287	0	0	1	0	0	3	7	88	133	55
		M	229	0	0	0	0	0	3	5	73	108	40
		F	58	0	0	1	0	0	0	2	15	25	15
C16	of Stomach	т	177	0	0	0	0	0	0	14	36	66	61
		M	109	0	0	0	0	0	0	6	22	42	39
		F	68	0	0	0	0	0	0	8	14	24	22
C18-	of Colon, Rectum,	т	797	0	0	0	0	0	3	57	171	247	319
C21	and Anus	M	436	0	0	0	0	0	1	40	111	148	136
		F	361	0	0	0	0	0	2	17	60	99	183
C22	of Liver and	т	409	0	0	1	0	1	6	11	112	181	97
	Intrahepatic Bile Ducts	M	264	0	0	1	0	0	4	8	89	110	52
		F	145	0	0	0	0	1	2	3	23	71	45
C25	of Pancreas	т	768	2	0	0	0	0	3	25	177	339	222
		M	397	1	0	0	0	0	0	15	94	176	111
		F	371	1	0	0	0	0	3	10	83	163	111
C32	of Larnyx	т	54	0	0	0	0	0	0	0	14	28	12
		M	46	0	0	0	0	0	0	0	10	25	11
		F	8	0	0	0	0	0	0	0	4	3	1
C33-	of Trachea,	т	2,118	0	0	0	0	0	3	31	412	1,043	629
C34	Bronchus, and Lung	M	1,118	0	0	0	0	0	3	17	235	549	314
		F	1,000	0	0	0	0	0	0	14	177	494	315

Table 2. Deaths from Selected Causes by Age Group and Sex, Minnesota Residents, 2019.

	Cause of Death		Total	< 1	1-4	5-9	10-14	15-19	20-34	35-49	50-64	65-79	80+
		Sex											
	ALL CAUSES, Total	Т	44,553	292	66	31	42	149	967	1,779	6,147	12,628	22,452
ICD10		М	22,564	157	37	15	29	105	696	1,099	3,766	7,193	9,467
Code		F	21,989	135	29	16	13	44	271	680	2,381	5,435	12,985
	Malignant Neoplasms cont	inued											
C43-	Skin	Т	198	0	0	0	0	0	1	11	44	77	65
C44		М	123	0	0	0	0	0	0	7	27	54	35
		F	75	0	0	0	0	0	1	4	17	23	30
C50	of Breast	т	637	0	0	0	0	0	7	42	176	199	213
		M	6	0	0	0	0	0	0	0	2	2	2
		F	631	0	0	0	0	0	7	42	174	197	211
C53	of Cervix Uteri	т	33	0	0	0	0	0	0	5	10	14	4
		М	0	0	0	0	0	0	0	0	0	0	0
		F	33	0	0	0	0	0	0	5	10	14	4
C54-	of Corpus Uteri and	т	196	0	1	0	0	0	0	4	31	106	54
C55	Uterus	M	3	0	1	0	0	0	0	0	1	1	0
		F	193	0	0	0	0	0	0	4	30	105	54
C56	of Ovary	т	232	0	0	0	0	0	2	15	50	102	63
		M	1	0	0	0	0	0	0	0	0	1	0
		F	231	0	0	0	0	0	2	15	50	101	63
C61	of Prostate	т	590	0	0	0	0	0	1	3	56	210	320
		М	586	0	0	0	0	0	0	3	55	209	319
		F	4	0	0	0	0	0	1	0	1	1	1
C64-	of Kidney and	т	267	0	0	0	0	0	1	7	60	117	82
C65	Renal Pelvis	M	189	0	0	0	0	0	1	5	42	81	60
		F	78	0	0	0	0	0	0	2	18	36	22

Table 2. Deaths from Selected Causes by Age Group and Sex, Minnesota Residents, 2019.

	Cause of Death		Total	< 1	1-4	5-9	10-14	15-19	20-34	35-49	50-64	65-79	80+
		Sex											
	ALL CAUSES, Total	T	44,553	292	66	31	42	149	967	1,779	6,147	12,628	22,452
ICD10		M	22,564	157	37	15	29	105	696	1,099	3,766	7,193	9,467
Code		F	21,989	135	29	16	13	44	271	680	2,381	5,435	12,985
	Malignant Neoplasms continu	ed											
C67	of Bladder	Т	265	0	0	0	0	0	0	2	22	88	153
		M	190	0	0	0	0	0	0	2	16	68	104
		F	75	0	0	0	0	0	0	0	6	20	49
C69-	of Eye, Brain, and	т	301	1	2	2	3	3	10	27	99	112	42
C72	Other Parts of Central	M	173	1	1	0	2	2	8	14	53	69	23
	Nervous System	F	128	0	1	2	1	1	2	13	46	43	19
C82-	Non-Hodgkin's	т	407	0	0	0	0	1	4	10	52	166	174
C85	Lymphoma	M	250	0	0	0	0	0	3	7	33	112	95
		F	157	0	0	0	0	1	1	3	19	54	79
C91-	Leukemia	т	418	0	3	0	1	0	5	13	58	167	171
C95		M	247	0	1	0	1	0	2	10	34	109	90
		F	171	0	2	0	0	0	3	3	24	58	81
C88	Multiple Myeloma	Т	205	0	0	0	0	0	1	5	32	88	79
C90	and Immunoproliferative	M	114	0	0	0	0	0	0	2	22	47	43
	Neoplasms	F	91	0	0	0	0	0	1	3	10	41	36
Re-	Other Malignant	т	1,342	0	3	2	0	3	22	43	237	534	498
sid-	Neoplasms	M	677	0	0	2	0	2	14	19	122	282	236
ual		F	665	0	3	0	0	1	8	24	115	252	262
D00-	In Situ and Benign	т	320	0	1	1	0	0	4	2	35	93	184
D48	Neoplasms and Neoplasms	M	178	0	1	0	0	0	2	1	22	59	93
	of Uncertain Behavior	F	142	0	0	1	0	0	2	1	13	34	91

Table 2. Deaths from Selected Causes by Age Group and Sex, Minnesota Residents, 2019.

		Cause of Death		Total	< 1	1-4	5-9	10-14	15-19	20-34	35-49	50-64	65-79	80+
			Sex											
		ALL CAUSES, Total	Т	44,553	292	66	31	42	149	967	1,779	6,147	12,628	22,452
ICD10			M	22,564	157	37	15	29	105	696	1,099	3,766	7,193	9,467
Code			F	21,989	135	29	16	13	44	271	680	2,381	5,435	12,985
D50-	III.	DISEASES OF THE	Т	196	3	2	0	0	1	2	15	17	51	105
D89		BLOOD AND BLOOD-	M	104	2	1	0	0	1	1	9	13	30	47
		FORMING ORGANS	F	92	1	1	0	0	0	1	6	4	21	58
D50-		Anemias	Т	119	0	0	0	0	0	2	4	6	30	77
D64			М	59	0	0	0	0	0	1	3	5	20	30
			F	60	0	0	0	0	0	1	1	1	10	47
D65-		Other Diseases of the	т	77	3	2	0	0	1	0	11	11	21	28
D89		Blood and Blood-Forming	М	45	2	1	0	0	1	0	6	8	10	17
		Organs	F	32	1	1	0	0	0	0	5	3	11	11
			_	2.000	_	_		_					750	212
E00-	IV.	ENDOCRINE, NUTRITIONAL,	T	2,098	3	2	1	2	3	27	100	390	758	812
E90		AND METABOLIC DISEASES	M	1,153	0	1	1	2	1	21	64	249	455	359
		AND IMMUNITY DISORDERS	F	945	3	1	0	0	2	6	36	141	303	453
E10-		Diabetes Mellitus	Т	1,394	0	0	0	0	1	16	59	273	537	508
E14			M	822	0	0	0	0	0	14	36	175	347	250
			F	572	0	0	0	0	1	2	23	98	190	258
Re-		Other Endocrine,	Т	704	3	2	1	2	2	11	41	117	221	304
sid-		Nutritional, Metabolic,	M	331	0	1	1	2	1	7	28	74	108	109
ual		and Immunity Disorders	F	373	3	1	0	0	1	4	13	43	113	195

Table 2. Deaths from Selected Causes by Age Group and Sex, Minnesota Residents, 2019.

	Cause of Death		Total	< 1	1-4	5-9	10-14	15-19	20-34	35-49	50-64	65-79	80+
		Sex											
	ALL CAUSES, Total	Т	44,553	292	66	31	42	149	967	1,779	6,147	12,628	22,452
ICD10		М	22,564	157	37	15	29	105	696	1,099	3,766	7,193	9,467
Code		F	21,989	135	29	16	13	44	271	680	2,381	5,435	12,985
	/. MENTAL AND	Т	3,299	0	0	0	1	2	11	55	187	527	2,516
F99	BEHAVIORAL DISORDERS	M	1,284	0	0	0	0	2	6	41	123	291	821
		F	2,015	0	0	0	1	0	5	14	64	236	1,695
F01	Vascular Dementia	Т	470	0	0	0	0	0	0	0	4	68	398
	result of infarction of the brain	М	178	0	0	0	0	0	0	0	2	40	136
	due to vascular disease	F	292	0	0	0	0	0	0	0	2	28	262
F03	Unspecified dementia	т	2,393	0	0	0	0	1	0	2	29	327	2,034
	<b>excludes</b> Alzheimer's Disease	М	815	0	0	0	0	1	0	2	11	159	642
	[See G30 for Alzheimer's]	F	1,578	0	0	0	0	0	0	0	18	168	1,392
F10-	Disorders due to Psychoactive	т	256	0	0	0	0	0	9	48	109	68	22
F18, F19	Substance use [excl. tobacco]	М	190	0	0	0	0	0	5	35	80	52	18
·		F	66	0	0	0	0	0	4	13	29	16	4
Re-	Other Mental Illness and	т	180	0	0	0	1	1	2	5	45	64	62
sid-	Disorders of Psychological	М	101	0	0	0	0	1	1	4	30	40	25
ual	Development	F	79	0	0	0	1	0	1	1	15	24	37
	I. DISEASES OF THE	Т	4,508	6	3	2	1	3	38	68	254	1,072	3,061
G99	NERVOUS SYSTEM	M	1,895	3	1	1	0	3	23	39	134	570	1,121
		F	2,613	3	2	1	1	0	15	29	120	502	1,940
G20-	Parkinson's Disease	Т	731	0	0	0	0	0	1	0	12	238	480
G21		M	464	0	0	0	0	0	1	0	9	168	286
		F	267	0	0	0	0	0	0	0	3	70	194

Table 2. Deaths from Selected Causes by Age Group and Sex, Minnesota Residents, 2019.

	Cause of Death		Total	< 1	1-4	5-9	10-14	15-19	20-34	35-49	50-64	65-79	80+
		Sex											
	ALL CAUSES, Total	Т	44,553	292	66	31	42	149	967	1,779	6,147	12,628	22,452
ICD10		M	22,564	157	37	15	29	105	696	1,099	3,766	7,193	9,467
Code		F	21,989	135	29	16	13	44	271	680	2,381	5,435	12,985
	Diseases of Nervous System	Continue	d										
G30	Alzheimer's Disease	Т	2,568	0	0	0	0	0	1	5	31	365	2,166
		M	822	0	0	0	0	0	1	4	16	149	652
		F	1,746	0	0	0	0	0	0	1	15	216	1,514
Re-	Other Diseases of the	Т	1,209	6	3	2	1	3	36	63	211	469	415
sid-	Nervous System	M	609	3	1	1	0	3	21	35	109	253	183
ual		F	600	3	2	1	1	0	15	28	102	216	232
	D1054050 05 TUF	_	44.604	•	_		2	•	60	200	4 272	2 020	7.404
100- IX.	DISEASES OF THE	T	11,691	8	5	4	2	9	68	309	1,272	2,820	7,194
199	CIRCULATORY SYSTEM	M F	5,916 5,775	4 4	3 2	2 2	2 0	6 3	44 24	202 107	883 389	1,718 1,102	3,052 4,142
		•	3,773	·	_	_	· ·	J		107	303	1,101	.,
100-	Major Cardiovascular	Т	11,625	7	5	4	2	9	68	304	1,260	2,804	7,162
178	<u>Diseases</u>	M	5,886	4	3	2	2	6	44	198	873	1,710	3,044
		F	5,739	3	2	2	0	3	24	106	387	1,094	4,118
100-109,	**Diseases of the Heart	Т	8,189	6	3	3	1	8	47	239	900	1,910	5,072
l11,l13,		M	4,362	3	2	1	1	6	31	163	636	1,243	2,276
120-151		F	3,827	3	1	2	0	2	16	76	264	667	2,796
100-	Acute Rheumatic Fever	т	115	1	0	0	0	0	1	1	8	30	74
109	and Chronic Rheumatic	M	37	0	0	0	0	0	0	0	3	12	22
	Heart Diseases	F	78	1	0	0	0	0	1	1	5	18	52
<b>I11</b>	Hypertensive Heart	т	427	0	0	0	0	0	2	19	39	69	298
	Disease	M	157	0	0	0	0	0	2	10	24	39	82
		F	270	0	0	0	0	0	0	9	15	30	216

Table 2. Deaths from Selected Causes by Age Group and Sex, Minnesota Residents, 2019.

	Cause of Death		Total	< 1	1-4	5-9	10-14	15-19	20-34	35-49	50-64	65-79	<b>80</b> +
		Sex											
	ALL CAUSES, Total	т	44,553	292	66	31	42	149	967	1,779	6,147	12,628	22,452
ICD10		М	22,564	157	37	15	29	105	696	1,099	3,766	7,193	9,467
Code		F	21,989	135	29	16	13	44	271	680	2,381	5,435	12,985
	Diseases of Circulatory System	Contin	ued										
<b>I13</b>	Hypertensive Heart	Т	192	0	0	0	0	0	1	2	14	28	147
	and Renal Disease	M	74	0	0	0	0	0	1	1	4	15	53
		F	118	0	0	0	0	0	0	1	10	13	94
120-	Ischaemic Heart Disease	т	4,077	1	0	0	0	1	16	122	560	1,131	2,246
125		M	2,538	0	0	0	0	1	11	88	420	817	1,201
		F	1,539	1	0	0	0	0	5	34	140	314	1,045
I21-	~Acute Myocardial	т	979	0	0	0	0	0	4	38	156	289	492
122	Infarction	M	582	0	0	0	0	0	3	29	117	204	229
		F	397	0	0	0	0	0	1	9	39	85	263
123-	~Other Acute Ischaemic	т	31	0	0	0	0	0	0	2	3	12	14
124	Heart Diseases	M	19	0	0	0	0	0	0	1	3	8	7
		F	12	0	0	0	0	0	0	1	0	4	7
125.0,	~Atherosclerotic (chronic)	т	2,666	0	0	0	0	0	10	78	369	733	1,476
125.1	Cardiovascular Disease	М	1,678	0	0	0	0	0	7	55	277	530	809
		F	988	0	0	0	0	0	3	23	92	203	667
120,	~Other Chronic Ischaemic	т	401	1	0	0	0	1	2	4	32	97	264
125.2-	Heart Diseases	M	259	0	0	0	0	1	1	3	23	75	156
125.9		F	142	1	0	0	0	0	1	1	9	22	108
126-	Other Heart Disease	т	3,378	4	3	3	1	7	27	95	279	652	2,307
<b>I51</b>		M	1,556	3	2	1	1	5	17	64	185	360	918
		F	1,822	1	1	2	0	2	10	31	94	292	1,389

Table 2. Deaths from Selected Causes by Age Group and Sex, Minnesota Residents, 2019.

	Cause of Death		Total	< 1	1-4	5-9	10-14	15-19	20-34	35-49	50-64	65-79	80+
		Sex											
	ALL CAUSES, Total	Т	44,553	292	66	31	42	149	967	1,779	6,147	12,628	22,452
ICD10		M	22,564	157	37	15	29	105	696	1,099	3,766	7,193	9,467
Code		F	21,989	135	29	16	13	44	271	680	2,381	5,435	12,985
	Diseases of Circulatory System C	ontin	ued										
150	~Heart Failure	Т	1,113	1	1	1	0	0	1	10	36	187	876
		M	486	0	1	1	0	0	1	7	21	99	356
		F	627	1	0	0	0	0	0	3	15	88	520
126-128,	~All Other Forms	т	2,265	3	2	2	1	7	26	85	243	465	1,431
130-139,	of Heart Disease	М	1,070	3	1	0	1	5	16	57	164	261	562
142-149,1	51	F	1,195	0	1	2	0	2	10	28	79	204	869
I10,	**Essential Hypertension	т	708	0	0	0	0	0	1	9	99	193	406
l12,	& Hypertensive Renal Disease	М	329	0	0	0	0	0	0	4	80	105	140
I15		F	379	0	0	0	0	0	1	5	19	88	266
160-	**Cerebrovascular	т	2,307	1	2	1	1	0	15	45	201	570	1,471
169	Diseases	M	975	1	1	1	1	0	9	23	116	295	528
		F	1,332	0	1	0	0	0	6	22	85	275	943
170-	**Diseases of arteries,	т	421	0	0	0	0	1	5	11	60	131	213
178	arterioles and capillaries	M	220	0	0	0	0	0	4	8	41	67	100
		F	201	0	0	0	0	1	1	3	19	64	113
I <b>71</b>	Aortic Aneurysm and	т	219	0	0	0	0	0	4	8	40	74	93
	Dissection	M	118	0	0	0	0	0	4	7	30	38	39
		F	101	0	0	0	0	0	0	1	10	36	54
172-	Other Diseases of the	т	202	0	0	0	0	1	1	3	20	57	120
178	Arteries, Arterioles,	М	102	0	0	0	0	0	0	1	11	29	61
	and Capillaries	F	100	0	0	0	0	1	1	2	9	28	59

Table 2. Deaths from Selected Causes by Age Group and Sex, Minnesota Residents, 2019.

	Cause of Death		Total	< 1	1-4	5-9	10-14	15-19	20-34	35-49	50-64	65-79	<b>80</b> +
		Sex											
	ALL CAUSES, Total	T	44,553	292	66	31	42	149	967	1,779	6,147	12,628	22,452
ICD10		M	22,564	157	37	15	29	105	696	1,099	3,766	7,193	9,467
Code		F	21,989	135	29	16	13	44	271	680	2,381	5,435	12,985
	Diseases of Circulatory Syst	em Contin	ued										
180-	Other Disorders of the	Т	66	1	0	0	0	0	0	5	12	16	32
199	Circulatory System	M	30	0	0	0	0	0	0	4	10	8	8
		F	36	1	0	0	0	0	0	1	2	8	24
J00- X.	DISEASES OF THE	т	3,604	7	1	3	2	3	21	58	403	1,239	1,867
J99	RESPIRATORY SYSTEM	М	1,860	6	1	0	0	1	14	34	225	692	887
•	MEST MUXICAL STOTEM	F	1,744	1	0	3	2	2	7	24	178	547	980
		•	1,7	-	Ū	3	_	_	,	2-7	170	3-17	300
J10-	Influenza and	Т	501	1	0	0	1	0	7	16	73	117	286
J18	Pneumonia	M	244	1	0	0	0	0	6	10	42	61	124
		F	257	0	0	0	1	0	1	6	31	56	162
J10-	Influenza	Т	82	0	0	0	0	0	1	7	14	24	36
J11		M	39	0	0	0	0	0	1	6	7	11	14
		F	43	0	0	0	0	0	0	1	7	13	22
J12-	Pneumonia	Т	419	1	0	0	1	0	6	9	59	93	250
J18		M	205	1	0	0	0	0	5	4	35	50	110
		F	214	0	0	0	1	0	1	5	24	43	140
J40-	Chronic Lower	Т	2,250	0	0	1	1	2	10	24	251	860	1,101
J47	Respiratory Diseases	M	1,135	0	0	0	0	0	7	12	138	475	503
		F	1,115	0	0	1	1	2	3	12	113	385	598
J43	Emphysema	Т	116	0	0	0	0	0	0	2	17	48	49
		M	65	0	0	0	0	0	0	0	13	24	28
		F	51	0	0	0	0	0	0	2	4	24	21

Table 2. Deaths from Selected Causes by Age Group and Sex, Minnesota Residents, 2019.

	Cause of Death		Total	< 1	1-4	5-9	10-14	15-19	20-34	35-49	50-64	65-79	80+
		Sex											
	ALL CAUSES, Total	T	44,553	292	66	31	42	149	967	1,779	6,147	12,628	22,452
ICD10		M	22,564	157	37	15	29	105	696	1,099	3,766	7,193	9,467
Code		F	21,989	135	29	16	13	44	271	680	2,381	5,435	12,985
	Diseases of Respiratory Sys	tem Contir	nued										
J45-	Asthma	Т	79	0	0	1	1	1	9	16	14	13	24
J46		M	34	0	0	0	0	0	6	7	6	7	8
		F	45	0	0	1	1	1	3	9	8	6	16
J44,	Other Chronic Lower	Т	2,055	0	0	0	0	1	1	6	220	799	1,028
J47	Respiratory Diseases	M	1,036	0	0	0	0	0	1	5	119	444	467
		F	1,019	0	0	0	0	1	0	1	101	355	561
J69	Pneumonitis Due to	Т	204	0	0	1	0	0	1	5	20	59	118
	Solids and Liquids	M	127	0	0	0	0	0	1	3	13	35	75
		F	77	0	0	1	0	0	0	2	7	24	43
Re-	Other Disease of the	Т	649	6	1	1	0	1	3	13	59	203	362
sid-	Respiratory System	M	354	5	1	0	0	1	0	9	32	121	185
ual		F	295	1	0	1	0	0	3	4	27	82	177
V00 V	L DISEASES OF THE	-	1 706	2	1	0	1	4	20	450	462	F2.4	C12
K00- X K93		T M	1,796 914	2	1	0	1	4	28	150 73	463	534	613
K93	DIGESTIVE SYSTEM	F		1	1 0	0 0	0	3	19	73 77	281 182	305	231
		F	882	1	U	U	1	1	9	//	182	229	382
K70,	Chronic Liver Disease	Т	660	0	0	0	0	0	19	110	290	202	39
K73-	and Cirrhosis	M	406	0	0	0	0	0	11	56	186	131	22
K74		F	254	0	0	0	0	0	8	54	104	71	17
К70	Alcoholic Liver	Т	462	0	0	0	0	0	15	97	231	116	3
	Disease	M	293	0	0	0	0	0	8	47	154	81	3
		F	169	0	0	0	0	0	7	50	77	35	0

Table 2. Deaths from Selected Causes by Age Group and Sex, Minnesota Residents, 2019.

	Cause of Death		Total	< 1	1-4	5-9	10-14	15-19	20-34	35-49	50-64	65-79	80+
		Sex											
	ALL CAUSES, Total	Т	44,553	292	66	31	42	149	967	1,779	6,147	12,628	22,452
ICD10		M	22,564	157	37	15	29	105	696	1,099	3,766	7,193	9,467
Code		F	21,989	135	29	16	13	44	271	680	2,381	5,435	12,985
	Diseases of Respiratory System	Contir	nued										
K73-	Other Chronic Liver	Т	198	0	0	0	0	0	4	13	59	86	36
K74	Disease and Cirrhosis	M	113	0	0	0	0	0	3	9	32	50	19
		F	85	0	0	0	0	0	1	4	27	36	17
Re-	Other Disease of the	Т	1,136	2	1	0	1	4	9	40	173	332	574
sid-	Digestive System	M	508	1	1	0	0	3	8	17	95	174	209
ual		F	628	1	0	0	1	1	1	23	78	158	365
LOO- XI	I. DISEASES OF THE SKIN	т	97	0	0	0	0	0	0	3	17	33	44
L99	AND SUBCUTANEOUS TISSUE	M	49	0	0	0	0	0	0	2	12	11	24
233	AND SOCIOTANES OS 11550E	F	48	0	0	0	0	0	0	1	5	22	20
		_	200				•			_	24	00	444
M00- XII		T	280	0	0	0	0	0	6	7	31	92	144
M99	MUSCULOSKELETAL SYSTEM AND CONNECTIVE TISSUE	M F	93 187	0	0	0	0	0	2 4	1 6	9 22	37 55	44 100
NOO- XI	/. DISEASES OF THE	Т	797	0	0	0	0	1	6	17	80	215	478
N99	GENITOURINARY SYSTEM	M	381	0	0	0	0	0	2	9	39	115	216
		F	416	0	0	0	0	1	4	8	41	100	262
N00-N07,	Nephritis, Nephrotic	Т	506	0	0	0	0	0	4	10	51	142	299
N17-N19,	Syndrome, and Nephrosis	M	266	0	0	0	0	0	1	7	29	85	144
N25-N27		F	240	0	0	0	0	0	3	3	22	57	155

Table 2. Deaths from Selected Causes by Age Group and Sex, Minnesota Residents, 2019.

		Cause of Death		Total	< 1	1-4	5-9	10-14	15-19	20-34	35-49	50-64	65-79	80+
			Sex											
		ALL CAUSES, Total	T	44,553	292	66	31	42	149	967	1,779	6,147	12,628	22,452
ICD10			M	22,564	157	37	15	29	105	696	1,099	3,766	7,193	9,467
Code			F	21,989	135	29	16	13	44	271	680	2,381	5,435	12,985
		Diseases of Genitourinary System	Cor	ntinued										
N17-		Renal Failure	T	477	0	0	0	0	0	4	10	50	131	282
N19			M	250	0	0	0	0	0	1	7	29	78	135
			F	227	0	0	0	0	0	3	3	21	53	147
Re-		Other Diseases of the	Т	291	0	0	0	0	1	2	7	29	73	179
sid-		Genitourinary System	М	115	0	0	0	0	0	1	2	10	30	72
ual			F	176	0	0	0	0	1	1	5	19	43	107
D00	<b>V</b> (V) (1	CERTAIN CONDITIONS	_	126	120	4	0	0	0	0	1	1	2	1
P00- P96	XVI.	CERTAIN CONDITIONS	T M	136 77	130 73	1 0	0	0	0	0	1	1	2	1
P96		ORIGINATING IN THE PERINATAL PERIOD	F	59	73 57	1	0 0	0	0	0	1 0	1 0	1	1 0
Q00-	XVII.	CONGENITAL MALFORMATIONS,	Т	214	75	11	5	3	3	7	19	45	35	11
Q99		DEFORMATIONS, AND	М	117	36	5	3	2	0	3	13	28	20	7
		CHROMOSOMAL ABNORMALITIE	F	97	39	6	2	1	3	4	6	17	15	4
R00-	XVIII.	SYMPTOMS, SIGNS, AND	Т	1,078	17	3	0	2	1	24	17	108	266	640
R99		ABNORMAL CLINICAL AND	М	498	9	1	0	1	0	18	13	72	152	232
		LABORATORY FINDINGS	F	580	8	2	0	1	1	6	4	36	114	408

80+

Table 2. Deaths from Selected Causes by Age Group and Sex, Minnesota Residents, 2019.

Total

M

< 1

1-4

5-9

10-14

15-19

20-34

35-49

50-64

65-79

**Cause of Death** 

W19

							_						
		Sex											
	ALL CAUSES, Total	Т	44,553	292	66	31	42	149	967	1,779	6,147	12,628	22,452
CD10		M	22,564	157	37	15	29	105	696	1,099	3,766	7,193	9,467
Code		F	21,989	135	29	16	13	44	271	680	2,381	5,435	12,985
/01- XX.	EXTERNAL CAUSES	Т	3,834	29	21	9	24	110	637	593	733	567	1,111
/98		M	2,402	16	15	5	19	83	490	418	519	378	459
		F	1,432	13	6	4	5	27	147	175	214	189	652
/01-	Accidents	Т	2,733	24	14	5	12	54	355	338	462	415	1,054
(59,	Accidents	M	2,733 1,579	13	11	1	11	38	260	231	317	269	428
(85-Y86		F	1,154	11	3	4	1	16	95	107	145	146	626
105 100		•	1,154		3	7	-	10	33	107	113	110	020
V01-	**Transport Accidents	Т	454	0	3	1	7	22	88	90	110	83	50
V99,		M	306	0	3	0	7	11	67	62	77	56	23
Y85		F	148	0	0	1	0	11	21	28	33	27	27
	+Motor Vehicle	т	411	0	3	1	5	21	84	87	98	63	49
	Accidents	М	271	0	3	0	5	10	64	59	68	39	23
		F	140	0	0	1	0	11	20	28	30	24	26
+-	+Other Transport Accidents	т	43	0	0	0	2	1	4	3	12	20	1
V90-	(land, water, air, space)	M	35	0	0	0	2	1	3	3	9	17	0
V99,Y85	( = = , = , = , = , = , = ,	F	8	0	0	0	0	0	1	0	3	3	1
•	9.0,V09.2,V12-V14,V19.0-V19.2,V19.4	I-V19.6	.V20-V79.V8	0.3-V80.5.V	/81.0-V81.1	.V82.0-V82	2.1.V83-V86	5.V87.0-V87	7.8.V88.0-V	88.8.V89.0.	V89.2		
	709.1,V09.3-V09.9,V10-V11,V15-V18,V												
W00-	**Non-Transport Accidents	т	2,279	24	11	4	5	32	267	248	352	332	1,004
X59,	Hansport Accidents	M	1,273	13	8	1	4	27	193	169	240	213	405
Y86		F	1,006	11	3	3	1	5	74	79	112	119	599
			,										
W00-	Falls	T	1,181	1	1	1	0	0	5	19	74	215	865

Table 2. Deaths from Selected Causes by Age Group and Sex, Minnesota Residents, 2019.

	Cause of Death		Total	< 1	1-4	5-9	10-14	15-19	20-34	35-49	50-64	65-79	80+
		Sex											
	ALL CAUSES, Total	Т	44,553	292	66	31	42	149	967	1,779	6,147	12,628	22,452
ICD10		M	22,564	157	37	15	29	105	696	1,099	3,766	7,193	9,467
Code		F	21,989	135	29	16	13	44	271	680	2,381	5,435	12,985
	External Causes Accidents Cor	ntinue	d										
X00-	Accidental Exposure	Т	31	0	0	0	0	0	2	3	13	10	3
X09	to Smoke, Fire, and Flames	M	21	0	0	0	0	0	2	2	11	4	2
		F	10	0	0	0	0	0	0	1	2	6	1
X40-	Accidental Poisoning <sup>1</sup>	Т	708	0	0	1	2	23	236	202	199	36	9
X49	and Exposure to	M	492	0	0	0	1	21	168	138	137	22	5
	Noxious Substances	F	216	0	0	1	1	2	68	64	62	14	4
Re-	Other Non-Transport	т	359	23	10	2	3	9	24	24	66	71	127
sid-	Accidents and Their	M	222	12	7	1	3	6	20	17	42	48	66
ual	Sequelae	F	137	11	3	1	0	3	4	7	24	23	61
X60-	Intentional Self-Harm	Т	802	0	0	0	10	44	198	196	226	102	26
X84,	(Suicide)	M	615	0	0	0	7	34	157	151	171	79	16
Y87.0		F	187	0	0	0	3	10	41	45	55	23	10
X72-	**By Discharge of	Т	346	0	0	0	4	20	78	73	95	62	14
X74	Firearms	M	304	0	0	0	4	19	71	66	81	52	11
		F	42	0	0	0	0	1	7	7	14	10	3
X60-X71,	**By Other and Unspecified	Т	456	0	0	0	6	24	120	123	131	40	12
X75-X84,	Means and Their Sequelae	M	311	0	0	0	3	15	86	85	90	27	5
Y87.0		F	145	0	0	0	3	9	34	38	41	13	7

Table 2. Deaths from Selected Causes by Age Group and Sex, Minnesota Residents, 2019.

	Cause of Death		Total	< 1	1-4	5-9	10-14	15-19	20-34	35-49	50-64	65-79	80+
		Sex											
	ALL CAUSES, Total	Т	44,553	292	66	31	42	149	967	1,779	6,147	12,628	22,452
ICD10		M	22,564	157	37	15	29	105	696	1,099	3,766	7,193	9,467
Code		F	21,989	135	29	16	13	44	271	680	2,381	5,435	12,985
	External Causes Continued												
X85-	Assault (Homicide)	Т	148	2	5	3	1	11	68	32	11	13	2
Y09,		M	114	2	4	3	1	10	59	19	9	6	1
Y87.1		F	34	0	1	0	0	1	9	13	2	7	1
X93-	**By Discharge of	т	96	0	1	1	1	8	56	21	5	3	0
X95	Firearms	M	82	0	1	1	1	8	52	15	3	1	0
		F	14	0	0	0	0	0	4	6	2	2	0
X85-X92,	**By Other and Unspecified	т	52	2	4	2	0	3	12	11	6	10	2
X96-Y09,	Means and Their Sequelae	M	32	2	3	2	0	2	7	4	6	5	1
Y87.1		F	20	0	1	0	0	1	5	7	0	5	1
Y10-	Events of Undetermined	т	71	3	2	1	0	1	13	20	18	4	9
Y34,	<u>Intent</u>	M	42	1	0	1	0	1	11	12	12	2	2
Y87.2,Y89.9		F	29	2	2	0	0	0	2	8	6	2	7
Y40-	Complications of Medical	т	80	0	0	0	1	0	3	7	16	33	20
Y84,	and Surgical Care	М	52	0	0	0	0	0	3	5	10	22	12
Y88	- <del>-</del>	F	28	0	0	0	1	0	0	2	6	11	8

**Note: 961** deaths were unclassified. [H00-H99] Diseases of the eye or ear (2); [O00-O96] Pregnancy and childbirth (11); [Y35] Legal intervention (16); [Y89] Sequelae of war operations (1); missing cause (931). Of those missing cause, most (929) are deaths that occurred outside MN state.

<sup>&</sup>lt;sup>1</sup> 57% of accidental poisonings are due to narcotics and hallucinogens in ages 20-64 years.

Table 3. MN Ten Leading Causes of Death<sup>1</sup>, Death Rates per 100,000 Population, Percent of Total Deaths, and Rank Order, Minnesota Residents, 2019.

		Minr	nesota		United	Sates <sup>2</sup>
	Number of	Death	Percent of	RANK	Death	RANK
Cause of Death	Deaths	Rates	Total	NAINI	Rates	NAINN
Malignant Neoplasms [Cancer] (C00-C97)	9,881	175.2	22.2%	1	182.6	2
Diseases of the Heart (100-109,111,113,120-151)	8,189	145.2	18.4%	2	199.7	1
Accidents (V01-X59,Y85-Y86)	2,733	48.5	6.1%	3	50.9	3
Falls (WOO-W19)	1,181	20.9	2.7%			
Accidental poisoning (X40-X49)	716	12.7	1.6%			
Motor Vehicle <sup>3</sup>	411	7.3	0.9%			
Alzheimer's Disease (G30)	2,568	45.5	5.8%	4	37.2	6
Cerebrovascular Diseases [Stroke] (160-169)	2,307	40.9	5.2%	5	45.0	5
Chronic Lower Respiratory Diseases (J40-J47)	2,250	39.9	5.1%	6	48.6	4
Diabetes Mellitus (E10-E14)	1,394	24.7	3.1%	7	25.9	7
Intentional Self-harm [Suicide] (X60-X84,Y87.0)	802	14.2	1.8%	8	14.7	10
Parkinsons (G20, G21)	731	13.0	1.6%	9	10.8	14
Influenza and Pneumonia (J10-J18)	501	8.9	1.1%	10	18.0	8
Influenza (J10-J11) Pneumonia (J12-J18)	82 419	1.5 7.4	0.2% 0.9%			
All Other Causes	13,197	234.0	29.6%		226.8	
Total - All Causes	44,553	790.0			865.0	

<sup>&</sup>lt;sup>1</sup>These are the 10 leading causes of death for residents of Minnesota listed in descending order of prevalence. Categories based on US 113 causes deemed rankable. MN rates and rank order are compared with US rates and rank order.

Note: Codes listed in parantheses are the ICD10 codes included in each category.

**Note: 961** deaths were unclassified. [H00-H99] Diseases of the eye or ear (2); [O00-O99] Pregnancy and childbirth (11); [Y35] Legal intervention (16); [Y89] Sequelae of war operations (1); missing cause (931).

<sup>&</sup>lt;sup>2</sup> United States data are from Mortality in the United States, 2019 & CDC wonder (Parkinson's); rank is not published for <sup>3</sup>Motor Vehicle cause codes: V02-V04, V09.0, V09.2, V12-V14, V19.0-V19.2, V19.4-V19.6, V20-V79, V80.3-V80.5, V81.0-V81.1, V82.0-V82.1, V83-V86, V87.0-V87.8, V88.0-V88.8, V89.0,V89.2

Mortality Table 4. Leading Causes of Death by Age Groups, Counts, and Age/Cause-specific Death Rates, Minnesota Residents, 2019.

	No. <sup>1</sup> of		Death Rate <sup>2</sup>		No. <sup>1</sup> of		Death Rate <sup>2</sup>	
	Deaths	%	Per 100,000		Deaths	%	Per 100,000	
	1-4 Years				5-49 Years			
Total - all causes	66		23.2	Total - all causes	1,779		168.7	
Accidents	14	21.2%		Malignant Neoplasms	339	19.1%	32.2	
Motor Vehicle	3	4.5%		Accidents	338	19.0%	32.1	
Congenital Anomalies	11	16.7%		Accidental poisoning <sup>3</sup>	202	11.4%	19.2	
Malignant Neoplasm	9	13.6%		Motor Vehicle	87	4.9%	8.3	
Infect. & Parasitic Dis.	5	7.6%		Diseases of the Heart	239	13.4%	22.7	
Assault (Homicide)	5	7.6%		Intentional Self-Harm	196	11.0%	18.6	
				Liver Disease, Cirrhosis	110	6.2%	10.4	
	5-9 Years			5	0-64 Years			
Total - all causes	31		8.5	Total - all causes	6,147		558.3	
Malignant Neoplasms	6	19.4%		Malignant Neoplasms	1,992	32.4%	180.9	
Accidents	5	16.1%		Diseases of the Heart	900	14.6%	81.7	
Motor Vehicle	1	3.2%		Accidents	462	7.5%	42.0	
Congenital Anomalies	5	16.1%		Accidental poisoning <sup>3</sup>	199	3.2%	18.1	
				Motor Vehicle	98	1.6%	8.9	
	10-14 Years			Liver Disease, Cirrhosis	290	4.7%	26.3	
Total - all causes	42		11.4	Diabetes Mellitus	273	4.4%	24.8	
				Chron. Lower Resp Dis.	251	4.1%	22.8	
Accidents	12	28.6%		Intentional Self-Harm	226	3.7%	20.5	
Other Transport	7	16.7%						
Motor Vehicle	5	11.9%						
Intentional Self-Harm	10	23.8%		6	5-79 Years <sup>2</sup>			
Malignant Neoplasms	4	9.5%		Total - all causes	12,628		1830.5	
	15-19 Years			Malignant Neoplasms	4,087	32.4%	592.4	
Total - all causes	149		41.3	Diseases of the Heart	1,910	15.1%	276.9	
				Chron. Lower Resp Dis.	840	6.7%	121.8	
Accidents	54	36.2%	15.0	Cerebrovascular Diseases	570	4.5%		
Motor Vehicle	21	14.1%	5.8	Diabetes Mellitus	537	4.3%	77.8	
Accidental poisoning <sup>3</sup>	23	15.4%	6.4	Accidents	415	3.3%	60.2	
Intentional Self-Harm	44	29.5%	12.2	Falls	215	1.7%		
Assault (Homicide)	11	7.4%		Motor Vehicle	63	0.5%		
Diseases of the Heart	8	5.4%		Alzheimer's Disease	365	2.9%	52.9	
	20-34 Years			80 Years and Over <sup>2</sup>				
Total - all causes	967		86.5	Total - all causes	22,452		9,740.1	
Accidents	335	34.6%	29.9	Diseases of the Heart	5,072	22.6%	2,200.3	
Accidental poisoning <sup>3</sup>	236	24.4%		Malignant Neoplasms	3,359	15.0%		
Motor Vehicle	84	8.7%		Alzheimer's Disease	2,166	9.6%	=	
Intentional Self-Harm	198	20.5%		Unspecified Dementia	2,034	9.1%		
Malignant Neoplasms	74	7.7%		•				
Assault (Homicide)	68	7.0%		1 Chron. Lower Resp Dis. 1,101 4.9%				
Diseases of the Heart	47	4.9%		Accidents	1,054	4.7%		
				Falls	865	3.9%	375.3	

<sup>&</sup>lt;sup>1</sup> Rates are per 100,000 age group-specific population. Rates are only calculated for those with a count of 20 or more due to the instability and unreliability of rate estimates with fewer than 20 deaths.

<sup>&</sup>lt;sup>2</sup> Age groups for those 65 and older were redefined and are not comparable to 65-74 and 75+ from previous years.

<sup>&</sup>lt;sup>3</sup> 57% of accidental poisonings are due to narcotics and hallucinogens in ages 20-64 years.

Mortality Table 5a. Deaths Due to Selected Causes by Race/Ethnicity, MN Residents, 2019.

			N	lon-Hispanic	-		
	Total	White	African American	American Indian	Asian or Pacific Islander	Other/ Unknown	Hispanic
TOTAL POPULATION <sup>1</sup>	5,639,632	4,526,589	422,594	68,904	306,415	N/A	315,130
TOTAL - ALL CAUSES	45,516	41,765	1,633	658	847	113	500
TOTAL - Natural Causes	41,682	38,584	1,337	490	757	104	410
Malignant Neoplasms	9,881	9,126	318	106	209	15	107
Stomach	177	141	8	3	19	0	6
Colon, Rectum and Anus	797	735	27	9	16	1	9
Pancreas	768	716	20	6	20	0	6
Trachea, Bronchus, Lung	2,118	1,960	77	34	35	2	10
Breast	637	584	28	5	11	1	8
Cervix, Uterus, Ovary	461	420	20	4	9	3	5
Prostate	590	560	14	6	3	2	5
Non-Hodgkins Lymphoma	407	378	9	5	7	0	8
Leukemia	418	398	8	2	4	0	6
Other Malignancies	3,508	3,234	107	32	85	6	44
Diabetes Mellitus	1,394	1,194	78	41	43	7	31
Alzheimer's Disease	2,568	2,511	21	12	11	2	11
Major Cardiovascular	11,625	10,806	379	107	224	22	87
Diseases of the Heart	8,189	7,661	256	82	113	16	61
Essential Hypertension & Hypertensive Renal	708	633	33	4	28	3	7
Cerebrovascular	2,307	2,127	73	19	71	3	14
Influenza & Pneumonia	501	455	14	12	11	1	8
Chronic Lower	301	133		12		-	J
Respiratory Diseases	2,250	2,143	52	30	16	2	7
Chronic Liver Disease							
and Cirrhosis	660	566	33	37	13	2	9
Nephritis, Nephrotic							
Syndrome, and Nephrosis	506	443	28	8	20	0	7
All Other Diseases	12,297	11,340	414	137	210	53	143
Total Accidents	2,733	2,315	179	118	50	8	63
Motor Vehicle Accidents	411	349	21	17	8	2	14
Falls	1,181	1,122	15	13	21	0	10
Accidental poisoning	708	474	118	69	12	4	31
Intentional Self-Harm	003	cos	30	20	35	^	47
(Suicide)	802	683	38	29	35	0	17
Assault (Homicide)	148	57	65	18	2	0	6
Other External Causes	151	126	14	3	3	1	4

<sup>&</sup>lt;sup>1</sup> Annual Estimates are bridged-race Vintage 2019 postcensal estimates of the July 1 resident population. These estimates were prepared by the Census Bureau in collaboration with NCHS. Bridged race estimates created for the 5 race or Hispanic categories. Thus, there are no population estimates for other/unknown. For more information or access to the data, see: <a href="https://wonder.cdc.gov/wonder/help/bridged-race.html">https://wonder.cdc.gov/wonder/help/bridged-race.html</a>

Note: see Table 5b for crude rates.

Mortality Table 5b. Cause-Specific Mortality Rates 1,2 by Race/Ethnicity, MN Residents, 2019.

			<u> </u>	Non-Hispani	С		
	Total	White	African American	American Indian	Asian or Pacific Islander	Other/ <sup>3</sup> Unknown	Hispanic
TOTAL - ALL CAUSES	807.1	922.7	386.4	955.0	276.4	N/A	158.7
TOTAL - Natural Causes	739.1	852.4	316.4	711.1	247.1	N/A	130.1
Malignant Neoplasms	175.2	201.6	75.2	153.8	68.2	N/A	34.0
Stomach	3.1	3.1				N/A	
Colon, Rectum and Anus	14.1	16.2	6.4			N/A	
Pancreas	13.6	15.8	4.7		6.5	N/A	
Trachea, Bronchus, Lung	37.6	43.3	18.2	49.3	11.4	N/A	
Breast	11.3	12.9	6.6			N/A	
Cervix, Uterus, Ovary	8.2	9.3	4.7			N/A	
Prostate	10.5	12.4				N/A	
Non-Hodgkins Lymphoma	7.2	8.4				N/A	
Leukemia	7.4	8.8				N/A	
Other Malignancies	62.2	71.4	25.3	46.4	27.7	N/A	14.0
Diabetes Mellitus	24.7	26.4	18.5	59.5	14.0	N/A	9.8
Alzheimer's Disease	45.5	55.5	5.0			N/A	
Major Cardiovascular	206.1	238.7	89.7	155.3	73.1	N/A	27.6
Diseases of the Heart	145.2	169.2	60.6	119.0	36.9	N/A	19.4
Essential Hypertension & Hypertensive Renal	12.6	14.0	7.8		9.1	N/A	
Cerebrovascular	40.9	47.0	17.3		23.2	N/A	
Influenza & Pneumonia	8.9	10.1				N/A	
Chronic Lower	0.5	10.1				IN/A	
Respiratory Diseases	39.9	47.3	12.3	43.5		N/A	
Chronic Liver Disease and Cirrhosis	11.7	12.5	7.8	53.7		N/A	
Nephritis, Nephrotic	9.0	9.8	6.6		6.5	N/A	
Syndrome, and Nephrosis	9.0	9.0	0.0		0.5	IN/A	
All Other Diseases	218.0	250.5	98.0	198.8	68.5	N/A	45.4
Total Accidents	48.5	51.1	42.4	171.3	16.3	N/A	20.0
Motor Vehicle Accidents	7.3	7.7	5.0			N/A	
Falls	20.9	24.8			6.9	N/A	
Accidental poisoning	12.6	10.5	27.9	100.1		N/A	9.8
Intentional Self-Harm	14.2	15.1	9.0	42.1	11.4	N/A	
(Suicide)					,	•	
Assault (Homicide)	2.6	1.3	15.4			N/A	
Other External Causes	2.7	2.8				N/A	

<sup>&</sup>lt;sup>1</sup>Rates are per 100,000 race/ethnicity specific population. Rates not computed for counts <20 due to unreliability (--).

<sup>&</sup>lt;sup>2</sup> Population denominator data are Bridged intersensal estimates obtained from CDC WONDER: wonder.cdc.gov.

<sup>&</sup>lt;sup>3</sup> No cause-specific rates can be calculated for persons of other or unknown races due to no population data for this subgroup. **Note:** see Table 5a for counts.

Mortality Table 6a. Deaths Due to Selected Causes by Rural/Urban Residence, MN Residents, 2019.

			Geo	ographic Reside	ence <sup>2</sup>	
	Total <sup>1</sup>	Large Urban	Large Suburban	Medium/ Small Metro	Micropolitan	Noncore
TOTAL POPULATION	5,639,632	1,816,164	1,705,303	874,939	667,107	576,119
TOTAL - ALL CAUSES	44,308	13,200	10,578	7,292	6,705	6,533
TOTAL - Natural Causes	40,482	11,897	9,598	6,717	6,202	6,068
Malignant Neoplasms	9,880	2,871	2,684	1,536	1,389	1,400
Stomach	177	55	59	18	20	25
Colon, Rectum and Anus	797	224	202	122	126	123
Pancreas	768	217	208	117	122	104
Trachea, Bronchus, Lung	2,117	578	577	328	301	333
Breast	637	188	179	104	82	84
Cervix, Uterus, Ovary	461	160	118	60	62	61
Prostate	590	169	165	88	89	79
Non-Hodgkins Lymphoma	407	135	101	64	61	46
Leukemia	418	115	111	69	53	70
Other Malignancies	3,508	1,030	964	566	473	475
Diabetes Mellitus	1,394	360	343	238	200	253
Alzheimer's Disease	2,567	740	633	483	402	309
Major Cardiovascular	11,624	3,187	2,702	2,040	1,802	1,893
Diseases of the Heart	8,188	2,121	1,858	1,476	1,316	1,417
Essential Hypertension &	708	235	190	107	81	95
Hypertensive Renal Cerebrovascular	2 207	696	548	393	2.42	327
	2,307				343	
Influenza & Pneumonia	501	156	98	85	75	87
Chronic Lower	2 250	591	611	227	241	380
Respiratory Diseases	2,250	291	911	327	341	360
Chronic Liver Disease and Cirrhosis	659	236	170	99	79	75
Nephritis, Nephrotic Syndrome, and Nephrosis	506	159	122	61	83	81
All Other Diseases	11,101	3,597	2,235	1,848	1,831	1,590
Total Accidents	2,729	946	707	414	352	310
Motor Vehicle Accidents	410	75	108	76	64	87
Falls	1,181	433	325	172	147	104
Accidental Poisoning	706	331	162	93	70	50
Intentional Self-Harm (Suicide)	799	225	206	125	121	122
Assault (Homicide)	148	79	24	16	11	18
Other External Causes	150	53	43	20	19	15

<sup>&</sup>lt;sup>1</sup>Total excludes 959 missing cause of death and/or 17 missing county of residence.

<sup>&</sup>lt;sup>2</sup> Classification is based on the National Center for Health Statistics (NCHS) Urban-Rural Classification Scheme for Counties. See https://www.cdc.gov/nchs/data\_access/urban\_rural.htm for more information. Note: see Table 6b for crude rates.

Mortality Table 6b. Cause-Specific Mortality Rates 1,2 by Rural/Urban Residence, MN Residents, 2019.

Mortanty Table 6b. Cause-5p		•		ographic Reside	ence	•
	Total <sup>1</sup>	Large Urban	Large Suburban	Medium/ Small Metro	Micropolitan	Noncore
TOTAL - ALL CAUSES	785.7	726.8	620.3	833.4	1,005.1	1,134.0
TOTAL - Natural Causes	717.8	655.1	562.8	767.7	929.7	1,053.3
Malignant Neoplasms	175.2	158.1	157.4	175.6	208.2	243.0
Stomach	3.1	3.0	3.5		3.0	4.3
Colon, Rectum and Anus	14.1	12.3	11.8	13.9	18.9	21.3
Pancreas	13.6	11.9	12.2	13.4	18.3	18.1
Trachea, Bronchus, Lung	37.5	31.8	33.8	37.5	45.1	57.8
Breast	11.3	10.4	10.5	11.9	12.3	14.6
Cervix, Uterus, Ovary	8.2	8.8	6.9	6.9	9.3	10.6
Prostate	10.5	9.3	9.7	10.1	13.3	13.7
Non-Hodgkins Lymphoma	7.2	7.4	5.9	7.3	9.1	8.0
Leukemia	7.4	6.3	6.5	7.9	7.9	12.2
Other Malignancies	62.2	56.7	56.5	64.7	70.9	82.4
Diabetes Mellitus	24.7	19.8	20.1	27.2	30.0	43.9
Alzheimer's Disease	45.5	40.7	37.1	55.2	60.3	53.6
Major Cardiovascular	206.1	175.5	158.4	233.2	270.1	328.6
Diseases of the Heart	145.2	116.8	109.0	168.7	197.3	246.0
Essential Hypertension & Hypertensive Renal	12.6	12.9	11.1	12.2	12.1	16.5
Cerebrovascular	40.9	38.3	32.1	44.9	51.4	56.8
Influenza & Pneumonia	39.9	8.6	5.7	9.7	11.2	15.1
Chronic Lower Respiratory Diseases	11.7	32.5	35.8	37.4	51.1	66.0
Chronic Liver Disease and Cirrhosis	9.0	13.0	10.0	11.3	11.8	13.0
Nephritis, Nephrotic Syndrome, and Nephrosis	9.0	8.8	7.2	7.0	12.4	14.1
All Other Diseases	196.8	198.1	131.1	211.2	274.5	276.0
Total Accidents	48.4	52.1	41.5	47.3	52.8	53.8
Motor Vehicle Accidents	7.3	4.1	6.3	8.7	9.6	15.1
Falls	20.9	23.8	19.1	19.7	22.0	18.1
Accidental Poisoning	12.5	18.2	9.5	10.6	10.5	8.7
Intentional Self-Harm (Suicide)	14.2	12.4	12.1	14.3	18.1	21.2
Assault (Homicide)	2.6	4.3	1.4			
Other External Causes	2.7	2.9	2.5	2.3		

<sup>&</sup>lt;sup>1</sup> Rates are per 100,000 rural/urban specific population. Rates not computed for counts <20 due to instability and unreliability.

<sup>&</sup>lt;sup>2</sup> Population denominator data are summed from MN State Demographer's 2019 estimates of population by county: https://mn.gov/admin/demography/data-by-topic/population-data/our-estimates/.

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# **Appendices**

# **Appendix A -- Technical Notes**

# Sources of Data

#### **Vital Events**

Birth and death registration and fetal death reports filed with the Office of the Vital Records, Minnesota Department of Health for calendar year 2019 are the source documents for data on vital statistics of Minnesota residents. Late 2019 vital event certificates may have been filed after preparation of the annual report. Future data obtained from MDH may differ from that which appears in this report due to updates to the data year made after the cutoff date.

Live births and deaths to Minnesota residents that occurred in another state are included in this report insofar as they are reported to the Office of Vital Records. The inclusion of these data is made possible by an agreement for exchange of copies of resident certificates among all registration areas in the United States. Not all of the states participate in the exchange of fetal death reports; thus, this report includes only fetal deaths that occurred in Minnesota.

# **Population Data**

Population estimates for 2019 by county, gender, and age group were obtained from the "Bridged-Race Population Estimates - Data Files and Documentation." Source: National Vital Statistics System. For additional information, see https://www.cdc.gov/nchs/nvss/bridged\_race/data\_documentation.htm.

Population estimates by race/ethnicity are from the bridged-race Vintage 2019 postcensal estimates of the July 1 resident population. These estimates were prepared by the Census Bureau in collaboration with NCHS. Bridged race estimates are created only for the five race or Hispanic categories. Thus, there are no population estimates for other/unknown races. For more information, see: <a href="https://wonder.cdc.gov/wonder/help/bridged-race.html">https://wonder.cdc.gov/wonder/help/bridged-race.html</a>.

Sociodemographic data are obtained from the American Community Survey, 1-year and 5-year estimates, which are produced by the United States Census Bureau. The 1-year estimates for the preceding year are available in late summer. The 5-year estimates are based on pooled data from the preceding five years and are typically available in December. Five-year estimates are more reliable because they are based on a larger sample size. The 1-year and 5-year estimates are not typically dramatically different from one another.

Estimates of the total populations for Minneapolis, Edina, Bloomington, Richfield, St. Paul, and Duluth were also obtained from the U.S. Census Bureau. However, no age or race-specific data are available for cities.

# Rates

Absolute counts of health-related events do not readily lend themselves to comparison between years or across various geographic areas because of population differences and, in

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some cases, the small number of reported events. These demographic differences include total numbers of events and of the population, age and sex distributions, and ethnic and/or racial composition. In order to assess the health status of a particular population at a specified time, the absolute number of events is converted to a relative number such as a rate, a ratio, or an index. In cases where there are a small number of birth or death events, rate calculations and sometimes counts, are suppressed (see description at the end of the section). Some of the most common rates are described below. Additional definitions are provided in Appendix B at the end of this document.

### **Crude Rates**

A crude rate is a good measure of the overall magnitude of an event (e.g., birth or death) in a population. The crude rate is useful information for some purposes, such as planning for the delivery of health care services. One should be cautious when comparing crude rates over time or across other geographies such as a county or another state. Notably, differences in crude rates may be due to a substantially younger or older population.

A crude birth or death rate is simply the number of events divided by the total population (the denominator), multiplied by some constant so that the result is not a fraction. For birth rates and death rates, 100,000 is the most commonly used multiplier, resulting in rates per 100,000 total population.

Other frequently reported rates include crude fertility rates, pregnancy rates, and abortion rates, all of which use the population of women ages 15 to 44 years as the denominator. Fertility rates are the number of <u>births</u> divided by the population of women ages 15 to 44 years. Pregnancy rates are the number of <u>pregnancies</u> divided by the population of women ages 15 to 44 years. Abortion rates are the number of <u>abortions</u> divided by the population of women ages 15 to 44 years.

# **Age-Specific Death Rates**

An age-specific death rate is useful in understanding the influence each age group has on the overall crude death rate. Mortality Table 4 shows age-specific death rates for the state of Minnesota using nine age groups.

An age-specific death rate is the number of deaths to an age group divided by the population for that age group, often multiplied by some constant so that the result is not a fraction (for death rates, 100,000 is the most commonly used multiplier). Not surprisingly, the death rates are many times higher in the oldest age groups.

#### **Infant Death Rates**

Because infant deaths are strongly associated with characteristics of their birth mothers, the standard is to use a linked birth/infant death data set, which comprises infant death records linked with their individual birth records. This allows for a more thorough examination of maternal demographic, pregnancy, or labor and delivery characteristics, and birth outcomes.

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This also allows for a more relevant denominator, namely the number of live-born infants rather than the total population of infants.

The national standard for reporting infant mortality is an annual period rate. Annual period rates are based on the linked birth/infant death records for all infants who die in a given year (period) using all live births from that same period as the denominator. Cohort rates are also used in infant mortality research, although they are not reported here (see Infant Mortality in Appendix B for additional information). The <u>infant mortality rate</u> is then defined as the number of infants born alive in a given year that die within the first year of life for every 1,000 live births in that same year.

Additional details about several other infant death-related measures are included in the appendix. This includes fetal deaths, neonatal deaths, and postneonatal deaths.

# **Data suppression**

In cases where there are fewer than 20 birth or deaths in a specific geography or by a certain characteristic, data may be suppressed in this report. There is a range of different suppression rules used by different agencies. However, we are reporting vital statistics data, so we use the rules from the National Vital Statistics System. Suppression of data serves two purposes: 1) to protect confidentiality and 2) to ensure statistical reliability when calculating rates. Local public health agencies may request unsuppressed counts by sending a request to HealthStats@state.mn.us.

Suppression rules for <u>confidentiality</u> are based on both the size of the geographic area and the number of events. For example, a county can be an area that is sparsely populated or it can have a large population but small cells still occur when stratifying outcomes by other factors such as small ethnicity groups and small age groups. In these cases, there is risk of deductive disclosure. In other words, with the combination of variables, it may be possible to identify a specific person and deduce something about their private health information. In national reports, small counts are sometimes reported (but not a corresponding rate). However, these counts are for VERY large geographic areas, so there is no risk of deductive disclosure. Risk of deductive disclosure only applies to data that include protected health information, most commonly birth or fetal death data.

Suppression rules for <u>reliability</u> are based on the production of unstable rate estimates due to the increased amount of variability (standard deviation) around the estimate. This means that the actual rate may be much higher or much lower. Moreover, a change of one or two events more or less can change the rate dramatically, giving the impression that there is a large change when in fact it is due to random variability of the estimates. For example, in a fictitious place where there are 146 births and 2 infant deaths, the infant mortality rate appears to be 13.7 deaths per 1,000 live births. The following year, in this same place, there are 154 births and 3 infant deaths. The infant mortality rate now appears to be 19.5 deaths per 1,000 live births. It is inappropriate to draw any conclusion from these data because the numbers are too small to produce an estimate that is not subject to random variation. More events in a given time and place will produce relatively stable estimates over time, unless there is an actual cause for a change. This situation applies to any vital event that is reported.

# Race/Hispanic Ethnicity Data Collection and Reporting

More than one race may be selected when reporting race of mother and father on a birth record or fetal death report or when reporting the race of decedent on a death record. In 2019, approximately 3.1% of Minnesota resident birth mothers chose more than one race, while approximately 0.7% of resident death records indicated multiple races.

For those who report more than one race, a bridged-race code is generated by the National Center for Health Statistics (NCHS), assigning that individual to one of the four race categories of White, Black, American Indian, or Asian/Pacific Islander, allowing for statistical comparisons to previous years' data. Due to the small number of multi-race persons in Minnesota, this generated code has little or no effect on the percentages and rates by race reported in this report.

Beginning with reporting year 2017, race/ethnicity data reporting changed from reporting race and Hispanic ethnicity separately to reporting each non-Hispanic race group individually. All birth and death events to those identified as Hispanic are included in the Hispanic group regardless of any other reported races. The final set of mutually exclusive groups are now: non-Hispanic White, non-Hispanic Black, non-Hispanic American Indian, non-Hispanic Asian or other Pacific Islander, non-Hispanic Other or Unknown, and Hispanic. These changes are based on National Vital Statistics System (NVSS) and NCHS practices for reporting race and ethnicity.

# **Geographic Allocation**

Vital events are classified geographically in two ways. The first is by place of occurrence, (i.e., the state, county, and city in which the birth or death took place). The second and more customary way is by place of residence, (i.e., the state, county, and city that is the usual residence of the decedent in the case of a death or of the mother in the case of a birth). Fetal deaths and infant deaths in cases where the child was never discharged from the hospital are classified to the residence of the mother. While occurrence statistics are accurate and have both administrative value and some statistical importance, resident statistics are the more useful tool when constructing health indices for planning and evaluation purposes. The statistics provided in this report are residence data unless otherwise stated.

# Rural/Urban Classification

It is often meaningful to examine health differences across the urban/rural continuum. For many health indicators, residents of large suburban metropolitan areas fare better than residents of either urban metro areas or rural areas. In this report, we use the urban-rural classification scheme for counties that was developed by the National Center for Health Statistics. Counties are classified into six urbanization levels (four metropolitan and two nonmetropolitan), and range from most urban to most rural.

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	Urbanization Level	Population	Largest city
_	Large urban metro >= 1,000,000		largest city >= 250,000
Metropolitan	Large suburban metro	>= 1,000,000	largest city < 250,000
Metrol	Medium metro	250,000 - 999,999	N/A
	Small metro	< 250,000	N/A
Nonmetro (rural)	Micropolitan	10,000 - 49,999	urban area >= 2,500
Nonn (rui	Non-core	< 49,999	no urban area > 2,500

# **Appendix B -- Definitions**

# **Abortion (induced termination of pregnancy):**

An act, procedure, or use of any instrument, medicine, or drug, which is supplied or prescribed for or administered to a pregnant woman, which results in the termination of pregnancy.

# Age/cause-specific death rate:

Number of deaths due to a particular underlying cause for a specified age group per 100,000 population comprising the same specified age group.

# Age-specific pregnancy rate:

Number of pregnancies (live births plus fetal deaths plus induced abortions) to women of a specified age group per 1,000 females in the population of the same specified age group. The standard pregnancy rate is the number of pregnancies per 1,000 females ages 15-44.

# **Birthweight:**

Birthweight is documented and reported in grams. An infant is considered to have low birthweight if it weighs less than 2,500 grams (5.5 pounds) at birth. Infants defined as macrosomic or high birthweight weigh equal to or more than 4,000 grams (8 pounds, 13 ounces) at birth.

## Cause of death:

Causes of death are classified according to the International Classification of Diseases of the World Health Organization (ICD-10). In this report, the underlying cause of death is used to classify the cause of death. The underlying cause of death is either the disease or injury that initiated the series of events leading directly to death or the accident or violence that produced the fatal injury. Other potentially contributing causes of death are not shown in this report.

#### Crude birth rate:

Number of live births per 1,000 total population.

#### **Crude death rate:**

Number of deaths per 1,000 total population or per 100,000 total population.

# **Fertility rate:**

Total number of live births per 1,000 females ages 15 to 44 years.

#### Fetal death:

Death prior to the complete expulsion or extraction of a product of conception from its mother, irrespective of the duration of the pregnancy. The death is indicated by the fact that, after expulsion or extraction, the fetus does not breathe or show any other evidence of life such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles. All fetal deaths of 20 weeks or more are required by state statute to be reported using the report of stillbirth/fetal death. In the Minnesota Annual reports, only fetal deaths of 20 weeks or more gestation are reported unless otherwise noted.

## Fetal death rate:

Number of fetal deaths per 1,000 live births plus fetal deaths.

# **Gestation or gestational age:**

The period of intrauterine development of the fetus, expressed in completed weeks, defined by the physician's estimate of gestation. Gestational age was previously reported based on documented last menstrual period. Beginning in 2017, gestational age is based on physician's estimate. Comparisons of the classifications are remarkably similar, except physician's estimate has fewer missing cases.

## Infant death:

The death of a live-born infant under one year of age. Infants born with no signs of life are classified as fetal deaths (see Fetal death, above).

# Infant mortality rate:

The national standard for reporting infant mortality is an annual period rate using linked birth/infant death records. Annual period rates are calculated from records for all infants who die in a given year (period) using all live births from that same period as the denominator. In other words, all infants that die in 2019, regardless of whether they were born in 2018 or 2019 are included for annual period rate calculations. The infant mortality rate is then defined as the number of infants born alive in a given year that die within the first year of life for every 1,000 live births in that same year.

#### Live birth:

The complete expulsion or extraction of a product of conception from its mother 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 whether or not the umbilical cord has been cut or the placenta is attached. Each product of such a birth is considered a live birth and is required by state statute to be registered as a live birth, regardless of gestation or length of time living after birth.

#### **Neonatal death:**

The death of a live-born infant under 28 days of age.

#### **Neonatal death rate:**

Number of neonatal deaths per 1,000 live births.

#### Perinatal death:

The death of a fetus after 28 weeks of gestation or a live-born infant under 7 days of age.

#### Perinatal death rate:

Number of perinatal deaths per 1,000 live births plus fetal deaths.

#### Postneonatal death:

The death of a live-born infant between 28 days and 1 year of age.

#### Postneonatal death rate:

Number of postneonatal deaths per 1,000 live births.

# **Prenatal Care (Indices):**

<u>Late prenatal care</u> is defined as a woman entering prenatal care in the third trimester or receiving no prenatal care.

Adequacy of prenatal care can be calculated using a variety of indices. For the Minnesota Annual reports, a new index is being used. In previous years, prenatal care adequacy was assessed using the graduated index (GINDEX). The GINDEX is calculated by combining measures of the month or trimester that prenatal care began, the number of prenatal visits, and the gestational age of the infant/fetus at the time of birth. Starting in 2017, Kotelchuck's Adequacy of Prenatal Care Utilization (APNCU) is being used, in keeping with the standards for national reporting. It should be noted that the APNCU results in a different distribution of the adequacy of prenatal care than provided by the previously used GINDEX; thus, previous years' adequacy measures are not comparable. Specifically, in national data, the APNCU identified both a greater number of intensive and slightly more inadequate PNC users.

The APNCU is also calculated using the month prenatal care began, the number of prenatal visits, and the gestational age of the infant/fetus at the time of birth. However, this measure incorporates an estimate of the expected number of prenatal care visits compared with the actual number of prenatal care visits received. The month prenatal care began is used to calculate the adequacy of entry into prenatal care. The expected number of prenatal care visits given gestational age (defined by the American College of Obstetricians and Gynecologists (ACOG)) is calculated and divided by the actual number of visits to create a ratio of expected to actual visits. This ratio is then combined with the adequacy of entry into prenatal care variable to classify the adequacy of prenatal care as Adequate Plus, Adequate, Intermediate, Inadequate, or None.

Intensive use of prenatal care (adequate plus) is associated with poor birth outcomes, due in most part to more prenatal care needed for high risk pregnancies. Thus, distinguishing those with intensive use of prenatal care from those with adequate/expected prenatal care is meaningful for understanding pregnancy risks and adverse birth outcomes.

## **Residence:**

Residence is the geographic area of the usual place of residence of the mother (in the case of a live birth or fetal death) or of the deceased at the time of death. This means, in general, the place where one lives and sleeps most of the time. However, when the decedent's usual residence is in a nursing home or other institution where a patient resided for receiving care, residence is coded to the place, if known, where the patient lived prior to admission to the institution.

#### **Trimester:**

One third of the total gestational period necessary for a full-term pregnancy (9 months). Thirteen weeks are allotted to each trimester. The count of weeks begins with the first day of the last menstrual period.