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DEPT. OF HEALTH AND HUMAN SERVICES

Jim Pillen, Governor

December 31, 2023

The Honorable Jim Pillen
Governor of Nebraska
State Capitol Room 2316
Lincoln, NE 68509

Mr. Brandon Metzler
Clerk of the Legislature
State Capitol Room 2028
Lincoln, NE 68509

Subject: State Maternal Death Review Team Annual Report

Dear Governor Pillen and Mr. Metzler:

In accordance with Neb. Rev. Stat. § 71-3407, the Division of Public Health submits this report for the Nebraska Maternal Death Review Team.

The Maternal Mortality Report presents an overview of maternal deaths in the State of Nebraska from 2017-2021 as well as recommendations from the Maternal Mortality Review Committee.

Sincerely,

Charity Menefee

Charity Menefee
Director, Division of Public Health

Attachment

NEBRASKA
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Division of Public Health

State Maternal Death Review Team Annual Report

December 2023

Neb. Rev. Stat. § 71-3407

Executive Summary

Maternal mortality is the death of a woman during pregnancy or within one year after the end of a pregnancy. Maternal mortality is an indicator used to assess the overall health of a country, state, or community. In the pursuit of healthier communities and improved maternal health outcomes, the State of Nebraska is committed to understanding and addressing the critical issue of maternal mortality.

The Nebraska Maternal Mortality Review Committee (MMRC) conducts comprehensive, multidisciplinary reviews of pregnancy associated deaths among Nebraska residents using national technical guidance from the Centers for Disease Control and Prevention (CDC) and CDC's Maternal Mortality Review Information Application (MMRIA).

Key Findings

From 2017-2021, a total of 50 Nebraska residents experienced a pregnancy associated death. An average of 10 pregnancy associated deaths occurred per year, ranging from six deaths in 2017 to 13 deaths in 2019. The five-year pregnancy associated mortality ratio (PAMR) was 42.0 deaths per 100,000 live births. The pregnancy related mortality ratio (PRMR) was 11.6 deaths per 100,000 live births.

Pregnancy Associated Deaths

- Eighty-two percent (82%) of the pregnancy associated deaths were deemed preventable after committee review.
- Most (58%) deaths occurred among those aged 25-34 years. Women ages 40-44 years had the highest PAMR with 211.3 (95% CI: 77.6 – 460.0) deaths per 100,000 live births.
- Two thirds (66%) of pregnancy associated deaths occurred in non-Hispanic White women. Non-Hispanic Black women represented 7.5% of the total live births to Nebraskan residents, but represented 20% of the pregnancy associated deaths and the highest PAMR with 110.2 deaths per 100,000 live births.
- Medical causes were the most common category of death representing 54% of all pregnancy associated deaths (n=27). One in five pregnancy associated deaths was due to a motor vehicle crash.
- Substance use disorders and obesity contributed to 22% and 18% of deaths, respectively.

Pregnancy Related Deaths

- Fourteen (28%) of the 50 deaths were pregnancy related deaths
- Ninety three percent (93%) of pregnancy related deaths were considered preventable.

Key Recommendations

The MMRC developed seven priority recommendation areas and related strategies to reduce preventable maternal mortality, including:

1) Closed loop social support
2) Non-discriminatory practices
3) Behavioral health access
4) Healthcare best practice adoption
5) Domestic violence safety plan development
6) Care continuity
7) Medical care access.

Key Definitions

Pregnancy associated death

A pregnancy associated death is the death of a woman while pregnant or anytime within one year of pregnancy regardless of cause. (Review to Action, 2021).

Pregnancy related death

A pregnancy related death is a maternal death due to a pregnancy complication. More specifically, these deaths occur during pregnancy or within a year of the end of a pregnancy and are due to a chain of events initiated by the pregnancy or the aggravation of an unrelated condition by the physiologic effects of pregnancy (Review to Action, 2021).

Pregnancy associated, but not related death

The death of a woman while pregnant or within one year of the end of pregnancy, due to a cause unrelated to pregnancy.

Pregnancy associated, but unable to determine pregnancy relatedness

The death of a woman while pregnant or within one year of pregnancy, due to a cause that could not be determined to be pregnancy related or not pregnancy related.

Pregnancy associated mortality ratio (PAMR)

The number of pregnancy associated deaths per 100,000 live births.

Pregnancy related mortality ratio (PRMR)

The number of pregnancy related deaths per 100,000 live births.

Chance to alter outcome

The review committee determination if there was no chance, some chance, or a good chance “of the death being averted by one or more reasonable changes to patient, family, community, provider, and/or systems factors.”

Preventability

A death was considered preventable if the committee determines that there was at least some chance of the death being averted.

Contributing factor

Factors identified by the review committee that contributed to the death. These are steps along the way that, if altered, may have prevented the woman’s death. The factors may be related to the patient, health care providers, facilities/hospitals where the woman sought care, or the systems that influence the lifestyle, care, and health services for the woman.

Introduction

In the pursuit of healthier communities and improved maternal outcomes, the State of Nebraska is committed to understanding and addressing maternal mortality. The Nebraska Maternal Mortality Report serves as a resource in understanding the trends, challenges, and progress in safeguarding the lives of expectant and new mothers across the state. The report explores factors contributing to maternal mortality, identifies disparities, and presents recommendations for action to prevent maternal deaths. Through a comprehensive examination of the data, we aim to quantify the issue and humanize it, recognizing that behind each statistic is a unique, irreplaceable life.

Background

Maternal Mortality in the United States

According to the Commonwealth Fund, the US has the highest mortality ratio compared to other developed countries. Many factors contribute to the high number of maternal deaths in the US, including too few maternity care providers and lack of access to comprehensive postpartum support (Tikkanen et al, 2020). Key national findings from Hoyert, 2023, included:

- The number of maternal deaths rose from 754 in 2019 to 1,205 in 2021.
- In 2021, the maternal mortality ratio for non-Hispanic Black women was 2.6 times the ratio for non-Hispanic White women.
- Individuals who were 40 or more years old at the time of pregnancy had a maternal mortality ratio that was 6.8 times higher than that of women under age 25.

Surveillance of Maternal Mortality in Nebraska

The Nebraska Revised Statute § 71-3404 – § 71-3411, also referred to as the Child and Maternal Death Review Act, defines the legal basis for the Maternal Mortality Review Committee (MMRC). Review of all maternal deaths in the state began in 2014. The review of deaths that occurred in 2014-2016 were conducted under contract by the Nebraska Medical Association (NMA). In 2018, the MMRC was added as a subcommittee of the Child and Maternal Death Review Team (CMDRT) and, in 2022, changes to the Child and Maternal Death Review Act clarified separation of the work of the MMRC and CDRT.

Nebraska's MMRC conducts reviews of pregnancy associated deaths among Nebraska residents using national technical guidance from CDC. It uses CDC's Maternal Mortality Review Information Application (MMRIA), a data system designed to support the functions of MMRCs through common data (reviewtoaction.org). The first maternal morbidity and mortality report in Nebraska was released in September 2021 and included deaths that occurred from 2014-2018. This report includes deaths that occurred from 2017-2021. Deaths which occurred in years 2017 and 2018 are included in both reports so that a five-year reporting period can be maintained. A rolling average over the five-year reporting period allows the MMRC the ability to meaningfully report on the relatively small number of maternal deaths that occur in the state.

Nebraska's MMRC meets quarterly and reviews all pregnancy associated deaths among Nebraska residents. The process includes 1) case identification, 2) record request, 3) case abstraction, 4) standardized review, and 5) making recommendations to prevent future deaths.

MMRC staff identify pregnancy associated deaths using the following methods: 1) the pregnancy checkbox on the death certificate (a death is a case if any of these three boxes are checked: “Pregnant at time of death,” “Not pregnant, but pregnant within 42 days of death,” or “Not pregnant, but pregnant 43 days to 1 year before death”), 2) cause of death codes on the death certificate related to obstetric events, 3) linking the decedent’s name on the death certificate to maternal name on live birth certificates within one year of the date of death, and 4) linking the decedent’s name on the death certificate to maternal name on fetal death certificates within one year of the date of death. This process is conducted quarterly throughout the calendar year and again after Nebraska’s Vital Records Office finalizes annual birth and death datasets approximately nine months after the end of the calendar year. A de-identified case number is then produced for each pregnancy associated death.

For the identified cases, MMRC staff request prenatal care, hospital, police, autopsy, Child and Family Services, crash report, and any other records of interest where appropriate. When sufficient records are received or attempts to obtain records have been exhausted, the case moves into the abstraction phase.

All pertinent information is abstracted from the records received by MMRC staff. The information is entered into the MMRIA system and a detailed case summary is produced. Fully abstracted, de-identified cases are sent to committee members for review.

The MMRC reviews and completes the MMRC Decisions Form. The form seeks to answer six core questions:

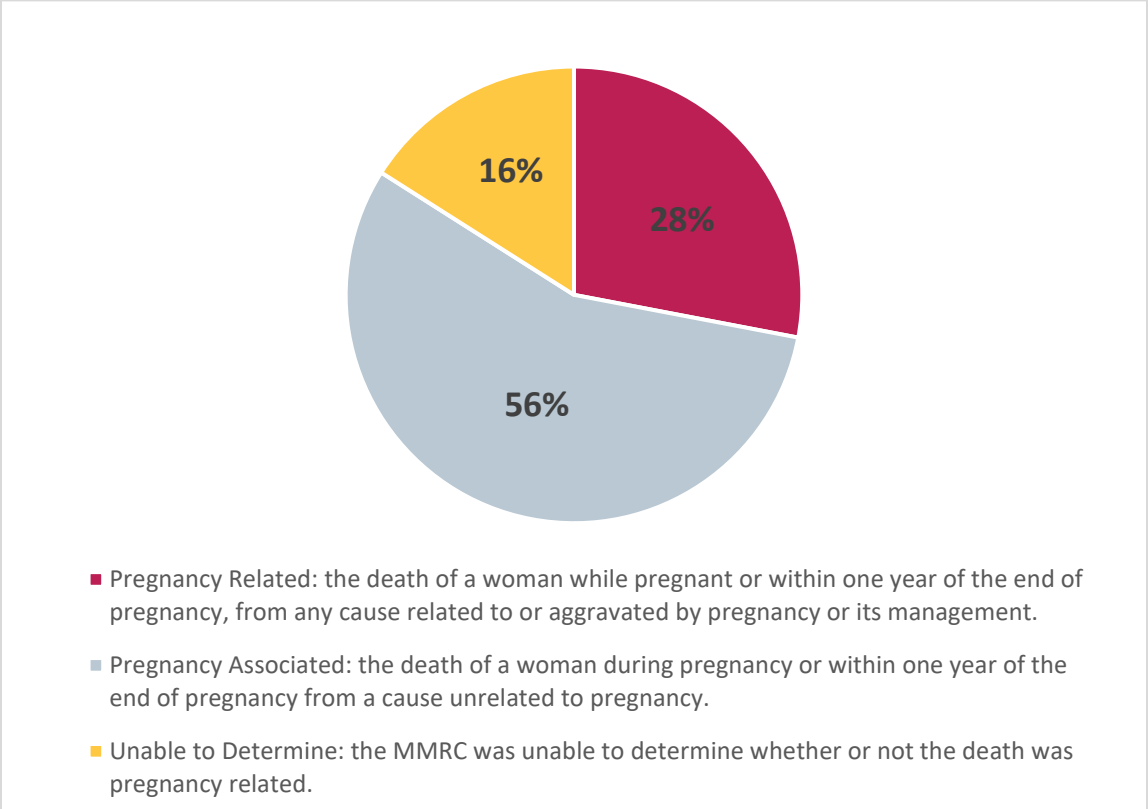
1. Was the death pregnancy related?
2. What was the cause of death?
3. Was the death preventable?
4. What were the critical contributing factors to the death?
5. What are the recommendations and actions that address those contributing factors?
6. What is the anticipated impact of those actions if implemented?

Demographic information presented in this report on pregnancy related deaths, which are deaths due to a chain of events initiated by the pregnancy or the aggravation of an unrelated condition by the physiologic effects of pregnancy, is limited due to the small number of individuals in most categories (counts between 1 and 5) and the inability to share the data without potential identification of individuals.

Findings

From 2017-2021, 50 deaths occurred to Nebraska residents when pregnant or within a year after the end of a pregnancy. Among the 50 pregnancy associated deaths, 14 (28%) were pregnancy related, 28 (56%) were pregnancy associated but not related, and for 8 cases (16%) the committee was not able to determine pregnancy relatedness (*Figure 1*).

Figure 1. Pregnancy Associated Deaths (N=50) by Pregnancy Relatedness, Nebraska 2017-2021.



Source: Nebraska Vital Records Office and Nebraska Maternal Mortality Review Committee.

National and State Ratios and Definitions

Published estimates of maternal mortality vary by data source and definition of maternal death. The Pregnancy Mortality Surveillance System (PMSS) definition differs from the definition used by the World Health Organization and the National Center for Health Statistics (NCHS) as shown in

Table 1. PMSS is a national pregnancy related mortality surveillance system conducted by CDC to better understand the risk factors for and causes of pregnancy related deaths in the United States.

Table 1 shows PMSS (2017-2019, United States), NCHS (2018-2021, United States) and Nebraska (2017-2021) ratios using the same definitions.

Table 1. Maternal Mortality, United States and Nebraska, 2017-2021.

	Maternal Mortality Rate, National Center for Health Statistics, United States	National Center for Health Statistics-Nebraska (n=21)	Pregnancy Related Mortality Ratio, Pregnancy Mortality Surveillance System, United States	Pregnancy Related Mortality Ratio-Nebraska (n=14)
Definition	Death while pregnant or within 42 days of the end of pregnancy by any cause related to pregnancy excluding accidental causes, based on underlying cause of death from death certificate	Death while pregnant or within 42 days of the end of pregnancy by any cause related to pregnancy excluding accidental causes, based on underlying cause of death from death certificate	Death while pregnant or within a year of the end of pregnancy by any cause related to pregnancy, based on linked death, birth, and fetal death records	Death while pregnant or within a year of the end of pregnancy by any cause related to pregnancy as determined by the MMRC, based on linked death, birth, and fetal death records and supplemental records
Rate/Ratio	Deaths per 100,000 live births	Deaths per 100,000 live births	Deaths per 100,000 live births	Deaths per 100,000 live births
2017		0.0	17.3	4.0
2018	17.4	16.3	17.3	16.3
2019	20.1	21.0	17.6	16.8
2020	23.8	34.2	-	12.8
2021	32.9	16.9	-	8.5
Source	Hoyert DL. (2023). Maternal mortality rates in the United States, 2021. National Center for Health Statistics Health E-Stats.	Nebraska Vital Records Office. 2017-2021.	Centers for Disease Control and Prevention. (2023). Pregnancy Mortality Surveillance System.	Nebraska Vital Records and Nebraska Maternal Mortality Review Committee (MMRC). 2017- 2021.

"- " Value was undefined or unavailable for this reporting year.

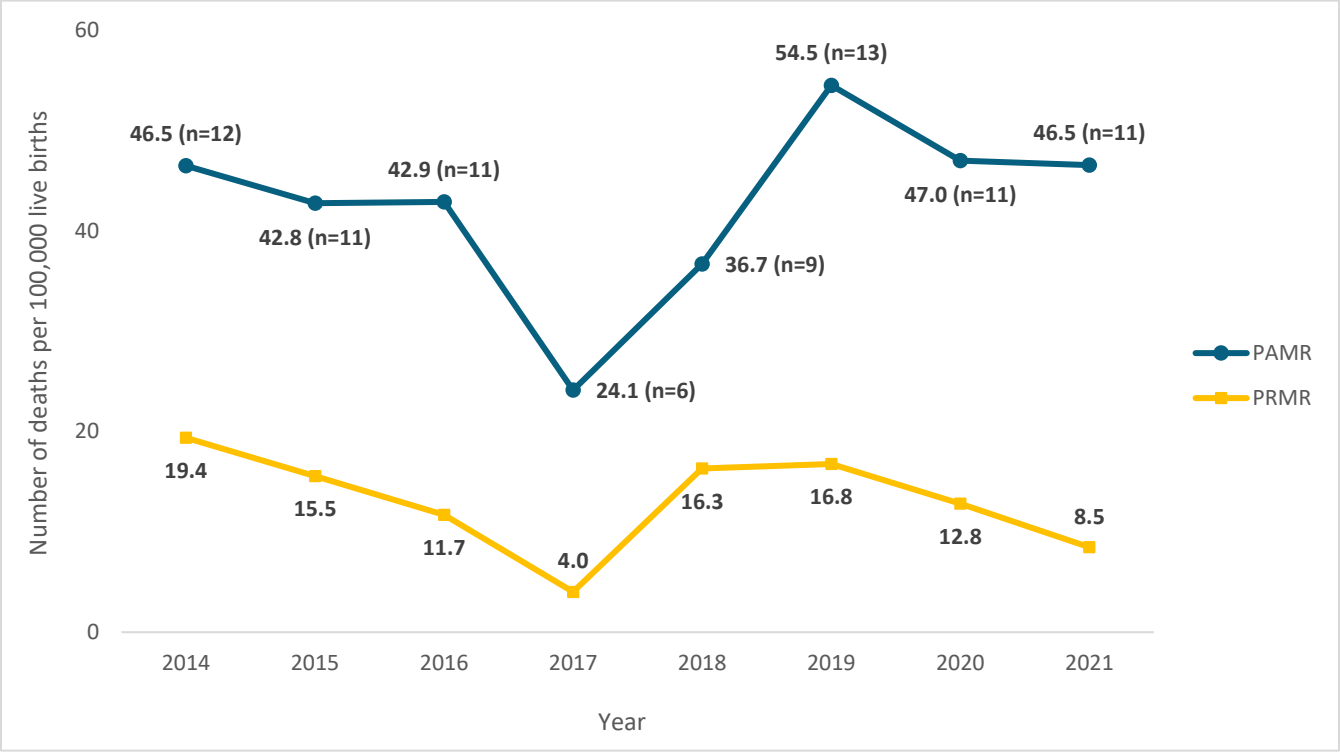
Pregnancy Associated Deaths

Maternal Mortality Trends

Between 2014 and 2016 the pregnancy associated mortality ratio (PAMR) was steady before a decrease in 2017 and increases in 2018 and 2019. The decrease from 2016-2017 and the increases from 2017-2018 and from 2018-2019 were not statistically significant. In 2020 and 2021, the PAMR was approximately 47 deaths per 100,000 live births (*Figure 2*).

The rolling average PAMR for Nebraska residents from 2014-2018 to 2017-2021 was 37.3 deaths per 100,000 live births (95% CI = 27.6, 49.3) to 41.6 deaths per 100,000 live (95% CI = 30.9, 54.8). The difference was not statistically significant.

Figure 2. Pregnancy Associated Mortality Ratio (N=84) and Pregnancy Related Mortality Ratio (n=26), Nebraska 2014-2021.



PAMR = Pregnancy Associated Mortality Ratio; PRMR = Pregnancy Related Mortality Ratio
Source: Nebraska Vital Records Office and Nebraska Maternal Mortality Review Committee.

Demographics

Demographic characteristics of those with pregnancy associated deaths in Nebraska from 2017-2021 are shown in *Table 2* on the next page.

Most (58.0%) decedents were 25-34 years old. Women 25-29 years old had the lowest PAMR (23.3 per 100,000 live births). The age group that experienced the highest PAMR was 40-44 years (211.3 per 100,000 live births), and this ratio was statistically significantly higher than the ratio for the age group 25-29 ($p<0.001$).

The PAMR for non-Hispanic Black women (110.2 per 100,000 live births) was 2.8 times that of non-Hispanic White women (38.9 per 100,000 live births), a statistically significant difference ($p=0.007$).

Almost all (92.0%) pregnancy associated deaths occurred in women who had a high school diploma or more. The highest pregnancy associated mortality ratio was seen in high school graduates without further education (95.3 deaths per 100,000 live births) and this ratio was statistically significantly higher than those with college credit or degree ($p<0.001$).

The PAMR among women with Medicaid coverage (46.6 per 100,000 live births) was higher than the ratio of women with private insurance (24.1 per 100,000 live births), but the difference was not statistically significant. Eight maternal deaths occurred among women for whom insurance status could not be confirmed.

There were no statistically significant differences in maternal mortality by geographic unit. Women who were obese before pregnancy had a higher PAMR than women of healthy weight, however, this difference was not statistically significant (*Table 2*).

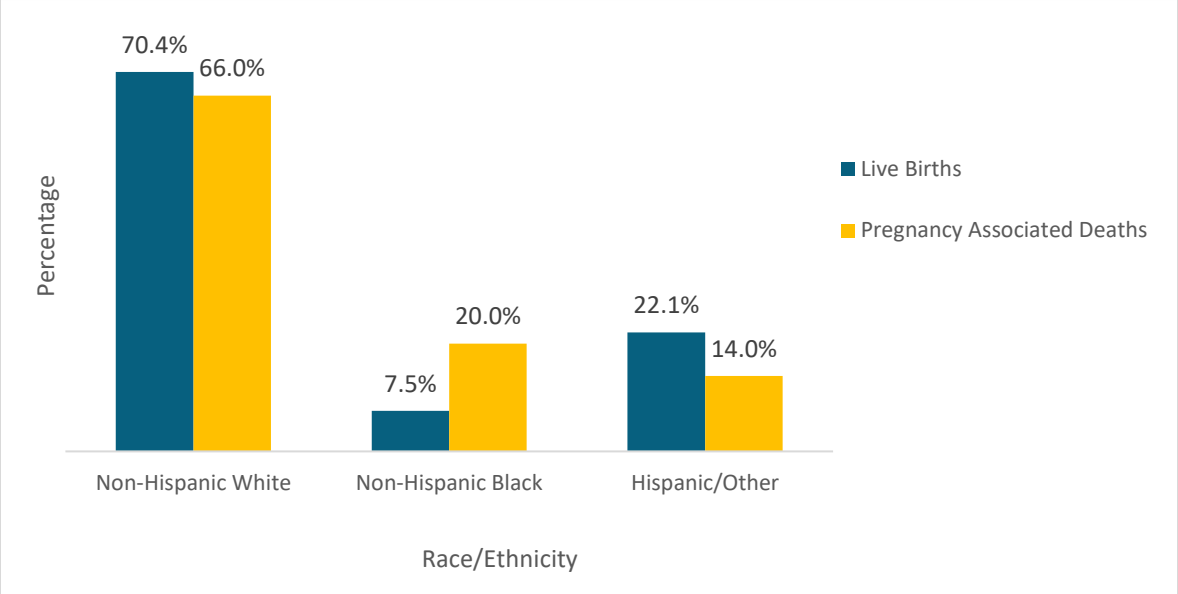
Table 2. Pregnancy Associated Deaths by Selected Demographics, Nebraska 2017-2021 (Pregnancy associated deaths n=50. Total live births N=120,348).

Demographics	Count	%	PAMR*	95% CI	Total Live Births
Age group					
20 - 24	9	18.0	42.1	19.2 – 79.9	21,386
25 - 29	11	22.0	23.3	10.6 – 44.2	38,694
30 - 34	18	36.0	49.4	29.3 – 78.1	36,414
35 - 39	6	12.0	37.6	13.8 – 81.9	15,941
40 - 44	6	12.0	211.3	77.6 – 460.0	2,839
Race and ethnicity					
Non-Hispanic White	33	66.0	38.9	26.8 – 54.7	84,731
Non-Hispanic Black	10	20.0	110.2	52.9 – 202.7	9,071
Hispanic	-	-	-	-	20,510
Other	-	-	-	-	6,036
Education					
12th Grade or Less	-	-	-	-	13,653
High school Graduate	22	44.0	95.3	61.1 – 141.8	23,087
College credit or degree	24	48.0	28.7	18.4 – 35.7	83,494
Unknown	-	-	-	-	114
Health insurance					
Private Insurance	17	34.0	24.1	14.0 – 38.6	70,509
Medicaid	19	38.0	46.6	28.1 – 72.8	40,766
Other	6	8.0	78.7	28.9 – 171.3	7,624
Unknown	8	16.0	-	-	1,449
Geographic unit					
Metropolitan	34	68.0	45.8	31.7 – 64.1	74,164
Micropolitan	9	18.0	29.8	13.6 – 56.6	30,206
Rural	7	14.0	43.8	17.6 – 90.3	15,978
BMI					
Underweight	-	-	-	-	3,136
Healthy Weight	11	22.0	21.8	10.9 – 39.0	50,448
Overweight	-	-	-	-	31,791
Obese	11	22.0	33.4	16.7 – 59.8	32,915
Unknown	16	32.0	-	-	2,058

Source: Nebraska Vital Records Office and Nebraska Maternal Mortality Review Committee.
* Ratios based on counts less than 20 should be interpreted with caution. Cells with counts of 1-5 are suppressed to maintain individual confidentiality.
"-" Values have been suppressed due to small numbers and privacy protection.
CI = Confidence Interval, calculated using a factor based on a Poisson variable of the number of deaths (CDC, 2003).
Body mass index (BMI) was calculated based on the woman's weight before pregnancy, as on the newborn's birth certificate.
Other race included Asian, American Indian or Alaska Native, Native Hawaiian or Pacific Islander, and other.
Health insurance information was from the newborn's birth certificate, or the woman's emergency room visits and hospitalizations, if applicable, other medical office visits, or prenatal care visits.
Other source of payment included self-pay, Indian Health Service, CHAMPUS/Tricare, other government insurance, and other.

While non-Hispanic Black women represented 7.5% of the women who gave birth during the reporting period, 20.0% of the pregnancy associated deaths occurred among non-Hispanic Black women, a statistically significant difference (p = 0.004) when comparing the proportion of those who were non-Hispanic Black among those who had a live birth and lived and among those who experienced a pregnancy associated death (*Figure 3*). Non-Hispanic White women and those among the combined group of individuals who were Hispanic or of another race were similarly represented among live births who lived and pregnancy associated deaths.

Figure 3. Proportion of Live Births (N=120,348) and Pregnancy Associated Deaths (N=50) by Race/Ethnicity, Nebraska 2017-2021.



Source: Nebraska Vital Records and Nebraska Maternal Mortality Review Committee.

Category of Death

The committee determined that medical causes were the most common category of death representing 54.0% (n=27) of the total (N=50) pregnancy associated deaths. Among deaths with a medical cause, approximately one quarter each were related to cardiovascular conditions, infections, and cancer. The remaining quarter were due to other medical conditions which included neurologic or neurovascular conditions (excluding cerebral vascular accident), hemorrhage (excluding aneurysms), and pulmonary conditions (excluding acute respiratory distress syndrome) (*Table 3*).

One in five pregnancy associated deaths was due to a motor vehicle crash. Motor vehicle crashes were the most frequent cause of accidental deaths, but poisonings, accidental overdoses, and fire/burns also occurred during the reporting period.

Deaths due to suicide and homicide occurred less frequently than medical and accidental deaths, with 7 of 50 cases categorized as such (14%) (*Table 3*).

Table 3. Pregnancy Associated Deaths by Category, Nebraska 2017-2021 (N=50).

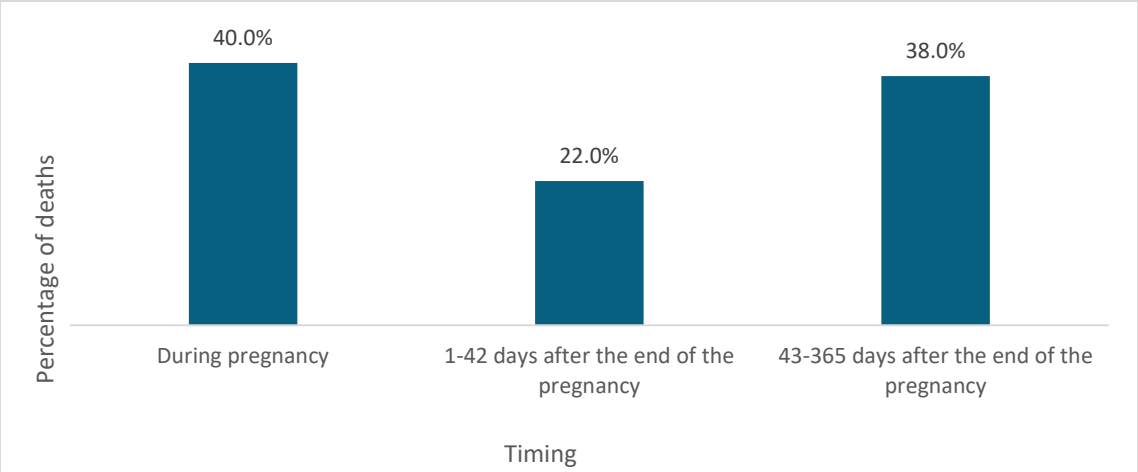
Accidental (32.0%; n=16)		**Homicide/Suicide (14.0%; n=7)**		**Medical (54.0%; n=27)**	
Cause	Column percent, n	Cause	Column percent, n	Cause	Column percent, n
Fire or burns	-	Firearm	-	Cancer	22.2%; n=6
Motor vehicle crash	62.5%; n=10	Hanging	-	Cardiovascular condition	25.9%; n=7
Poisoning or overdose	-	Sharp instrument	-	Infection	22.2%; n=6
				Other medical condition	29.7%; n=8

"-" Values have been suppressed due to small numbers and privacy protection.
Source: Nebraska Vital Records Office and Nebraska Maternal Mortality Review Committee.

Timing of Death

Over half (62%, n=31) of pregnancy associated deaths occurred during pregnancy or within 42 days after the end of the pregnancy (*Figure 4*). The remaining 38% of pregnancy associated deaths occurred between 43 days and 1 year of the end of a pregnancy.

Figure 4. Timing of Pregnancy Associated Deaths, Nebraska 2017-2021 (N=50).

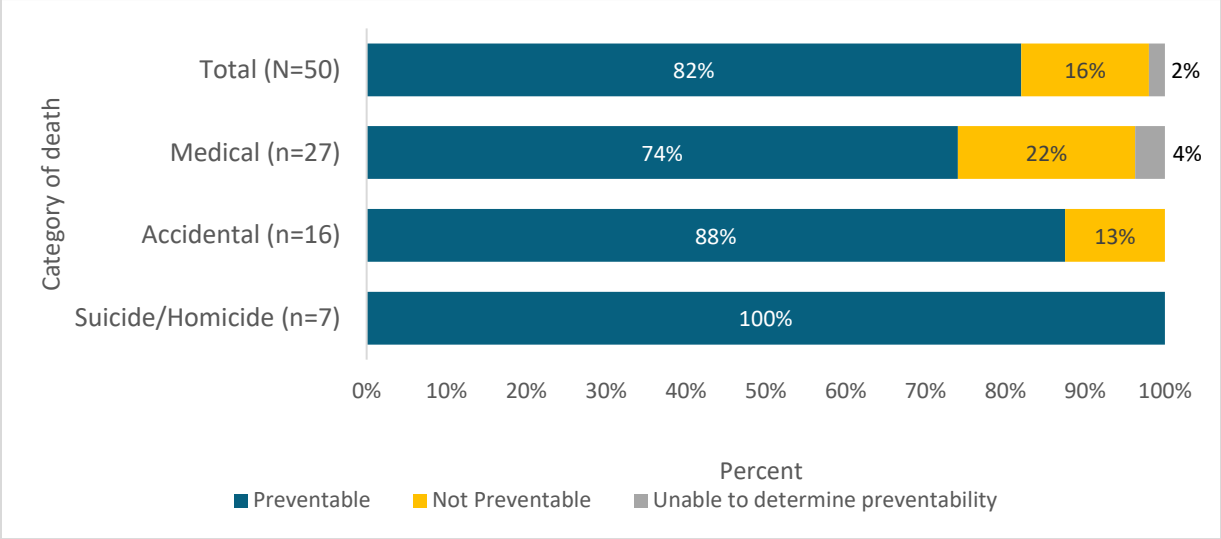


Source: Nebraska Vital Records Office and Nebraska Maternal Mortality Review Committee.

Preventability

The MMRC determines a pregnancy associated death was preventable if they find there was at least some chance of preventing the death by one or more reasonable changes to the circumstances of the patient, provider, facility, systems, or community factors contributing to the death. The MMRC determined there was at least some chance for preventability in 82% (n=41) of pregnancy associated deaths (N=50) in the 2017-2021 reporting period (*Figure 5*).

Figure 5. Preventability by Category of Maternal Death, Nebraska 2017-2021 (N=50).

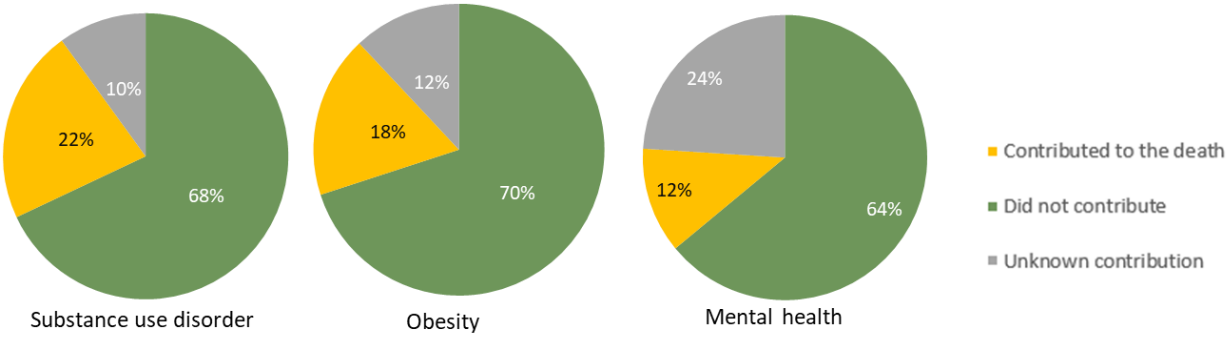


Source: Nebraska Maternal Mortality Review Committee.

Circumstances Surrounding Death

Nebraska MMRC reviews determined substance use disorder contributed to one in five pregnancy associated deaths. Marijuana and other drugs were the most frequent contributing substances (*Figure 6*).

Figure 6. Circumstances Contributing to Pregnancy Associated Deaths, Nebraska, 2017 – 2021 (N=50).



Source: Nebraska Maternal Mortality Review Committee.

A determination related to discrimination contributing to the maternal death was added to the Committee Decision Form in July 2020, so not all cases reviewed in this reporting period have a determination related to discrimination. These data will be included in future versions of the Maternal Mortality Report.

Pregnancy Related Deaths

A pregnancy related death is that which is due to a chain of events initiated by the pregnancy or the aggravation of an unrelated condition by the physiologic effects of pregnancy. The MMRC determined 14 (28%) of the 50 cases reviewed during the reporting period to be pregnancy related.

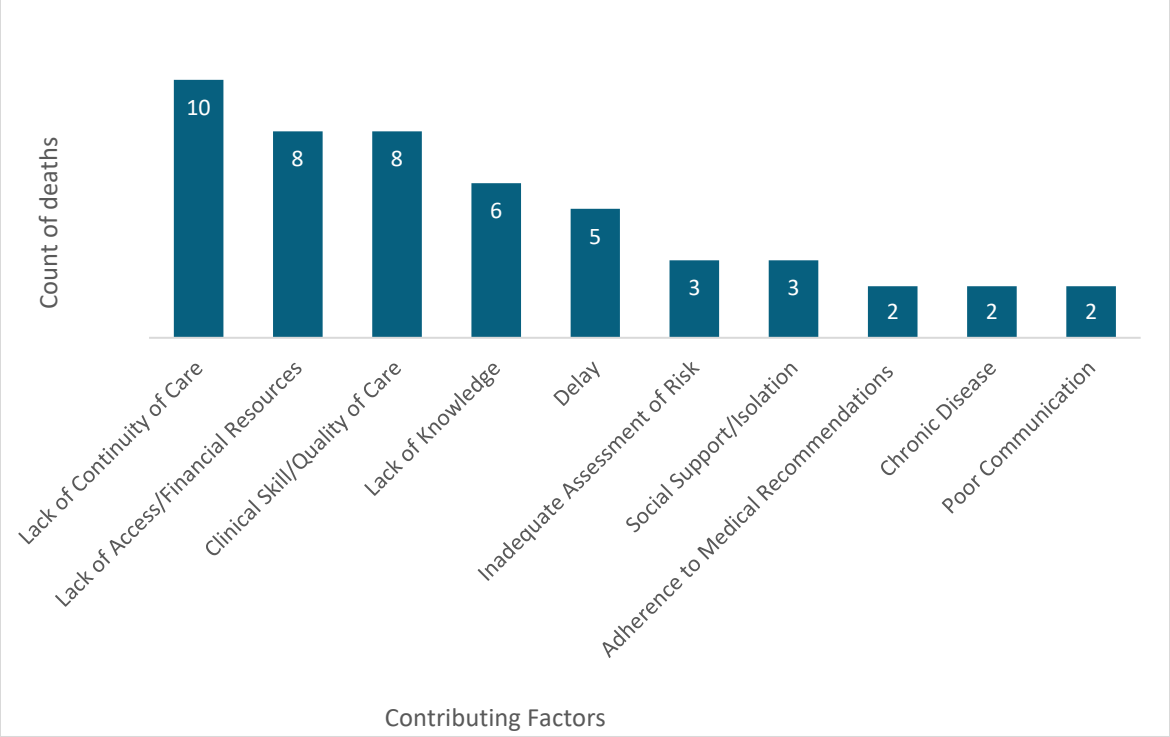
The PRMR from 2017-2021 was 11.6 deaths per 100,000 live births (95% CI=6.9, 18.3), a decrease of 18% in comparison to the previous reporting period of 2014-2018 (13.7 deaths per 100,000 live births; 95% CI= 7.5, 23.0), but the ratios were not statistically significantly different. The PRMR was higher in non-Hispanic Black women than in non-Hispanic White women, 22.0 (95% CI= 2.7, 79.5) and 11.8 (95% CI= 5.7, 21.7) respectively, but the difference was not statistically significant.

Contributing Factors

The MMRC identifies community-, system-, facility-, provider-, and patient-/family-level factors that contributed to each maternal death. The committee develops recommendations to address those factors to prevent future deaths. Multiple contributing factors can be identified for each maternal death.

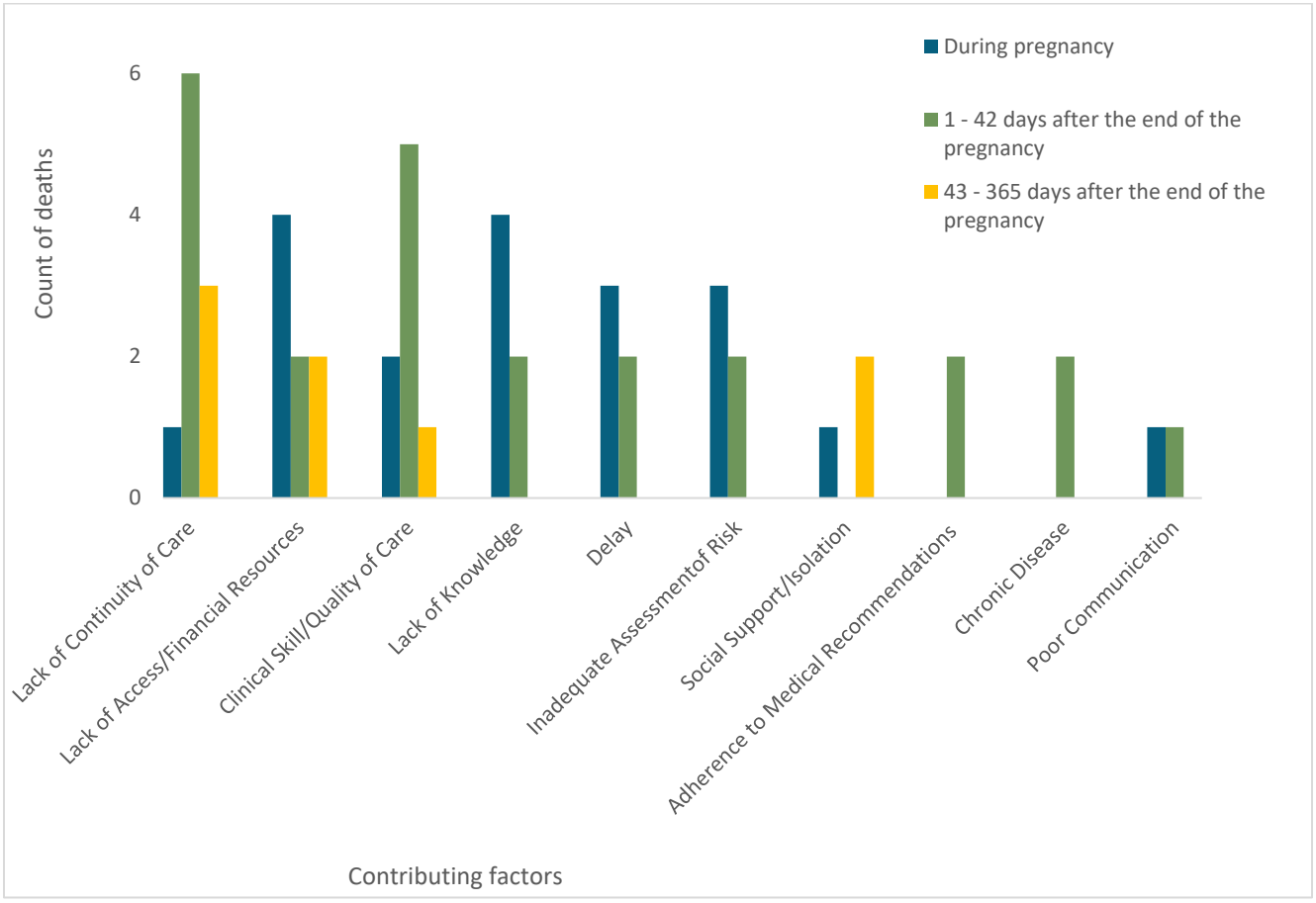
Lack of continuity of care was the most frequent factor identified as contributing to pregnancy related deaths, as shown in **Error! Reference source not found.**. The next most frequently identified contributing factors included lack of access or financial resources and clinical skill or quality of care. Lack of knowledge, delay in referral or access to care, and inadequate assessment of risk also contributed to the deaths.

Figure 7. Contributing Factors to Pregnancy Related Deaths, Nebraska, 2017-2021 (n=14).



Note: More than one factor could contribute to each death.
Source: Nebraska Maternal Mortality Review Committee.

Figure 8. Contributing Factors to Pregnancy Related Deaths by Timing of Death, Nebraska MMRC, 2017-2021 (n=14).



Note: More than one factor could contribute to each death.
Source: Nebraska Maternal Mortality Review Committee.

Most of the cases that lacked continuity of care were deaths that occurred between 1 and 42 days after the end of pregnancy (*Figure 8*). Lack of access or financial resources was most frequently identified as a contributing factor among people who died during pregnancy while clinical skill or quality of care was most frequently identified as a contributing factor in deaths that occurred between 1-42 days after the end of pregnancy. Lack of knowledge, delay in referral or access to care, and inadequate assessment of risk were identified most frequently among deaths that occurred during pregnancy. The most frequently identified contributing factors for deaths that occurred after 42 days from the end of a pregnancy included lack of continuity of care, lack of access or financial resources, and lack of social support or isolation.

Recommendations

The Nebraska MMRC has made over one hundred recommendations during case reviews, which are reflective of pregnancy associated deaths, pregnancy related deaths, and deaths for which relatedness was unable to be determined. The recommendations, evaluated by MMRC staff using a MMRIA data export, were determined to be wide ranging and comprehensive. However, the recommendations need to be actionable to make progress on the MMRC's goal of reducing preventable maternal mortality.

In early 2022, MMRC staff collaborated with a facilitator to plan a recommendation prioritization process with the full committee. At the April 2022 quarterly MMRC meeting, the committee participated in a facilitated conversation, which resulted in identification of seven priority recommendation topic areas: closed loop social support, non-discriminatory practices, behavioral health access, healthcare best practice adoption, domestic violence safety plan development, care continuity, and medical care access. These seven priority recommendation areas were further defined with actionable implementation strategies for each recommendation, developed by committee members through an online survey.

For the purposes of this report, the Nebraska MMRC has grouped the recommendations into the seven priority recommendation topic areas, with specific strategies related to each priority area (*Table 4*). Discussion about recommendation priorities continues at MMRC quarterly meetings and are expected to be vetted through community focus groups in 2024. The MMRC aims to develop actionable implementation strategies that include the appropriate timing and entity responsible for each action.

Conclusion

Maternal mortality is a matter of profound concern, not only for healthcare professionals and policymakers, but for all Nebraskans. By conducting comprehensive reviews leading to the development of actionable recommendations, we hope to take meaningful steps toward a Nebraska where every mother emerges from childbirth healthy, strong, and ready to embrace the joys and challenges of motherhood.

Table 4. Recommendation Topic Areas and Strategies for Action to Reduce Preventable Maternal Mortality, Nebraska, 2017-2021.

Recommendation topic area (listed alphabetically)	Strategies for action
Behavioral health access	Increased access to mental health care Mental health support: screening, access, resources, and follow-up Improve follow-up for patients that screen positive for mental health concerns Substance use disorder screening, referral, and plan of safe care Substance abuse identification, treatment, and follow-up
Care continuity	Transition of care Emergency department phone call within 24-48 hours of discharge
Closed loop social support	Non-Law Enforcement community response team Centralized referral system Universal utility access Access to and availability of community support services
Domestic violence safety plan development	Domestic violence education and resources Domestic violence screening, resources, and follow-up Domestic violence advocates receive training on pregnancy and safety planning Partnerships between hospitals and crisis centers
Healthcare best practice adoption	Provider education and drills Appropriate evaluation at presentation Postpartum care and follow-up Address barriers to education adoption Early identification of high-risk obstetric conditions
Medical care access	Expansion of telemedicine Eliminate barriers to prenatal care Perinatal regionalization
Non-discriminatory practices	Unbiased, equitable treatment for all Awareness, training, and education of structural racism across all fields Universal healthcare

Source: Nebraska Maternal Mortality Review Committee

References

Centers for Disease Control and Prevention. (2004). Vital Statistics of the United States: Motality, 1999.https://www.cdc.gov/nchs/data/statab/techap99.pdf

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