REPORT TO THE THIRTY- SECOND LEGISLATURE

STATE OF HAWAIʻI

2023

PURSUANT TO ACT 203, S.B. 2317, (SLH 2016 § AT 621-622)

REQUIRING THE DEPARTMENT OF HEALTH TO PROVIDE AN ANNUAL REPORT ON CHILD DEATH REVIEW AND MATERNAL MORTALITY REVIEW ACTIVITIES

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2023 REPORT TO THE HAWAIʻI STATE LEGISLATURE

SUMMARY

The information within this report emphasizes the importance of continued Hawaiʻi fatality reviews of child and maternal deaths to reduce and limit future deaths. The identification of preventative interventions and strategies greatly assist and support the medical and public health communities in providing critical information to sustain healthy and safe environments for the residents and visitors of Hawaiʻi.

These fatality reviews assist in identifying trends and patterns, valued cultural practices, what is working within the service and support system, failure or needed oversight in care, properly classifying causes of death, and needed system improvements including the need to change, approve, or modify existing laws. There is also great emphasis placed on continuing positive preventative interaction between public health agencies that work together with health care providers, communities, and other interested public and private agencies.

Within the Hawaiʻi Department of Health, Healthy Hawaiʻi 2020 “A Community Health Plan” continues to pave the way to reducing and eliminating health disparities. Health disparities are frequently linked to social, economic, environmental, and historical inequities.

In Hawaiʻi, disparities are often characterized by race/ethnicity and geography. The goals and strategies identified in the Community Health Plan are rooted in the idea that prevention is foundational to population health. Successful approaches to ensure healthy and safe environments need to also include preventative strategies of health risk factors in order to move towards sustaining thriving communities for the residents and visitors of Hawaiʻi.

In addition to the preventative work of many Hawaiʻi public and private professionals to preserve life and greatly reduce and limit preventative child and maternal deaths, the Centers for Disease Control and Prevention (CDC) has been instrumental in conducting scientific research to assist in the dissemination of improved information on medical and public health practices necessary to promote healthy and safe lifestyles for families, women, and children.

CHILD DEATH REVIEW

A. Overview of the Child Death Review Process

The Child Death Review (CDR) is a multidisciplinary and multiagency review of individual child deaths intended to help communities understand why children die and to equip families and stakeholders with effective preventable resources and supports to reduce future fatalities. The following further describes the child death review process:

1) Goals and objectives of the child death review committee meetings are to reduce preventable child deaths through systematic, multidisciplinary, and interagency review of all child deaths, from birth to under age 18, in the State of Hawaiʻi.
2) Hawaiʻi Child Death Review System objectives are to establish and maintain a State Collaborative Review where multiple fatality review coordinators meet.
3) Local Child Death Review Teams (Honolulu County, Kauaʻi County, Hawaiʻi County, and Maui County).
4) Describe issues, trends, and patterns of child death in Hawaiʻi.

5) Analyze the causes and circumstances surrounding child deaths.
6) Recommend the development of policies, strategies, and resources to prevent future child deaths based on risk factors.
7) Coordinate training sessions to reduce preventable child deaths.
8) Promote community prevention education activities through collaborative partnerships to prevent child deaths.
9) Infant reviews include deaths by:
    a) Homicide
    b) Accident
    c) Natural deaths are those attributed to disease-process-related causes, such as congenital anomalies, genetic disorders, cancers, serious infections, sudden infant death syndrome (SIDS), sudden unexpected infant death (SUIDS), pneumonia, and respiratory failure
    d) Undetermined is intended for cases that are difficult to establish with reasonable medical certainty, the circumstances of death after thorough examination
    e) Unintentional Injury is precipitated by events such as motor vehicle crashes, falls, poisonings, drowning, fires, burns, suffocation, choking, strangulation, electrocutions, agricultural injuries, accidental firearms use, and other accidents. These events take place without any intention to cause harm

History of the Child Death Review with Legislative Supports

1) The Legislature passed Senate Bill (SB) 1589, CD l, which became Act 369 upon the Governor's approval on July 3, 1997. Act 369 was codified into Sections §321-341 through §321-346, Hawai‘i Revised Statues.
2) In 2016, the Legislature passed Act 203, S.B. 2317 authorizing comprehensive multidisciplinary reviews of child deaths and adding the review of maternal deaths with the submission of an annual report to the Legislature. The stated purpose of these reviews is to understand risk factors and prevent future child and maternal deaths in Hawai‘i.
3) HRS §321-343 also provides access to information from all providers of healthcare, social services, and state and county agencies for the use of child death reviews upon written request from the Director of Health. HRS §321-346 provides for immunity from liability and states that all agencies and individuals participating in the review of child deaths shall not be held civilly or criminally liable for providing the information required under this part.
4) The 1997 Legislation assigned the Child Death Review responsibility to the Hawai‘i State Department of Health (DOH). This provided the DOH the authority to develop and implement a data-driven policy and make recommendations for system changes to reduce preventable child deaths. §321-341 designates the DOH Family Health Services Division, Maternal and Child Health Branch to implement these multidisciplinary and multiagency reviews of child deaths.
5) The DOH Family Health Services Division (FHSD) is committed to continuously working towards improving the availability of and access to preventive and protective health services for individuals and families by providing leadership in collaboration with communities and public-private partners. These services are carried out by the administrative staff of the Division office and through three branches: Children with Special Health Needs Branch (CSHNB); Women, Infants, and Children (WIC); and Maternal and Child Health Branch (MCHB).
6) A core aspect of MCHB is the administration of services to reduce health disparities for

women, children, and families of Hawai‘i. One key element of administering preventive public health services directed by MCHB is through three fatality reviews: child death, maternal mortality, and domestic violence. The Division's three branches work in collaboration, sharing information to assist in identifying critical facts to prevent and reduce future similar deaths.

B. Child Death Review Summary

1) Child death reviews provide essential information needed to identify strategies to improve child health and safety. The goal is to understand the causes, circumstances, and incidences of these deaths in Hawai‘i and identify objectives, recommendations, and outcomes to reduce the number of preventable child deaths. Information is then shared with the public.
2) The child death categories selected for review in Hawai‘i have been defined by the National Center for Fatality Review and Prevention and supported by the U.S. Department of Health and Human Services, Health Resources and Administration, Maternal and Child Health Bureau to include child abuse and neglect, homicide, suicide, undetermined, natural, and unintentional injury.
3) Child death reviews in Hawai‘i are reviewed one year after the death occurs and public and private members of the community examine the circumstances surrounding a child's death.
4) Interagency collaboration assists team members in understanding why children die and promotes the development of interventions to protect other children and prevent future deaths.
5) Data is then analyzed, and recommendations are made in order to assess which deaths may be preventable.
6) Public and private agencies collaborate to ensure prevention strategies and recommendations are available for families, parents, and the entire community.
7) The National Center for Fatality Review and Prevention is funded in part by a Cooperative Agreement from the U.S. Department of Health and Human Services (HHS), Health Resources and Services Administration (HRSA), Maternal and Child Health Bureau and provides continued support to Hawai‘i in the following areas:
    a) Ensures consistent reporting of the cause and manner of death within the National Fatality Review Case Reporting System that is available to the Hawai‘i Child Death Review team
    b) Encourages the improvement of communication and linkages among local and state agencies enhancing the coordination of efforts
    c) Provides webinars, training, data support, and resource development to Hawai‘i

C. Federal Funds for Child Death Review Support through the DOH FHSD/ MCHB

1) Within MCHB, there are program areas that develop continued strategies with public and private partners to assist in limiting and reducing preventive child deaths. These program areas, promote healthy lifestyles for children using federal and state funds, including:
    a) Community-Based Child Abuse Prevention (federal grant) – focuses on prevention programs and activities designed to strengthen and support families to prevent child abuse and neglect

b) MCHB Domestic Violence Sexual Assault Special Fund – uses a public health approach to incorporate the special funds, implementing strategies and activities to prevent, reduce, and eliminate sexual violence and domestic intimate partner violence

c) Maternal, Infant, and Early Childhood Home Visiting Program (MIECHV) (federal grant) – voluntary, evidence-based home visiting service for at- risk pregnant women and families with children through kindergarten entry. MIECHV provides:

i. Home visiting professionals that are paired with families who have limited supports and resources
ii. Promotion of positive birth outcomes for pregnant women with referrals for other needed services
iii. Parenting education on child development, maternal and child health, and preparing children for school readiness
iv. Services that are also available for homeless/houseless families

2) Personal Responsibility Education Program (federal grant) – supports organizations and communities to reduce the risk of youth homelessness, adolescent pregnancy, and domestic violence.
3) Rape Prevention and Education Program (federal grant) – guides the implementation of sexual violence prevention efforts, which includes stopping sexual violence before it begins; reducing risk factors; and using the best available evidence when planning, implementing, and evaluating prevention programs.
4) MCHB also utilizes funds through FHSD's Title V Maternal and Child Health (MCH) Block Grant authorized in 1935 as part of the Social Security Act. Title V's mission is to improve the health and well-being of the nation's mothers, infants, children, and youth, including children and youth with special healthcare needs and their families. The program is funded through the Health Resources and Services Administration's Maternal and Child Health Bureau and administered by FHSD.
5) Contracts with statewide providers in Hawai'i to provide Family Planning Services and Reproductive Health supports to the underinsured and uninsured while working in partnership with private and public agencies such as Essential Access Health, administrator of Title X services; healthcare agencies; and the Hawai'i State Department of Human Services.

Pertinent Data

1) Total number of child deaths for 2021 was 97. There were 31 non-natural deaths and 66 natural deaths.
    a) Cause of death for non-natural deaths: accidents (9); suicide (3); homicide (1); undetermined (1); and pending (17) (manner of deaths are pending).
    b) Natural deaths are those attributed to disease process related causes, such as congenital anomalies, genetic disorders, cancers, serious infections, Sudden Infant Death Syndrome, Sudden Unexpected Infant Death, pneumonia, and respiratory failure.
2) Number of children deaths in state custody (Department of Human Services, Social Services Division, Child Welfare Services) for 2021.
    a) There were no deaths for children in state custody.
3) Trends – Data gathered through DOH Vital Records
    a) More than half of the non-natural child death cases were in Honolulu – 22
        i. Hawai'i County – 8

ii. Maui County – 1

b) For most of the non-natural causes of death for children in Honolulu, the death manner was pending with not enough information to make a determination (14), accident (5), homicide (1), suicide (1), and undetermined (1).

c) There were three (3) suicide cases, two (2) in Hawai'i County and one (1) in Honolulu. All three children were in 15-17 age group.

d) Out of fourteen (14) non-natural infant deaths, two (2) were accident, one (1) was undermined death, and eleven (11) had pending death manner.

4) Recommendations for System Changes

a) Continue to develop partnerships with health and youth service providers to promote adolescent health and annual wellness visits of youth ages 12- 17.

b) Continue to increase prevention strategies for promoting child and adolescent wellness, including developing social media and other online content that is mobile responsive for both parents and adolescents.

c) Continue to provide opportunities for youth to be a part of decision-making for suicide and motor vehicle preventive strategies.

5) Legislative Recommendations

a) The Honolulu Child Death Review team recommends amending the current Hawai'i Revised Statues, Title 19 Health 321-341 Child Death Review Statue, which currently addresses deaths of prematurely born infants as young as 24 weeks gestation to now include all fetal deaths over 20 weeks of gestation. Amendment under discussion with the prospect of a pilot review to evaluate the team capacity and needs.

b) Proposal of new legislation to require homes, private residences, and vacation rentals to install childproof fencing and self-latching gates for swimming pools. This will prevent drownings and deaths, especially of young children. The proposal is a work in progress with the support of the Child Death Review committee team, lawful personnel, and the Red Cross partnership.

c) The Child Death Review team will continue to work on advocating for identifying specific actions required to create a Fetal and Infant Mortality Review for Hawai'i.

i. Differences in child death and fetal death reviews is that fetal reviews include family member interviews and abstraction of deaths by clinicians. There is also more of an emphasis on prematurity factors.

D. Preventive Program Activities

1) DOH continues to launch media campaigns on Safe Sleep and Sudden Infant Death Syndrome (SIDS) to educate parents and caregivers on how to keep infants safe while sleeping. The hope is to increase awareness of safe sleep practices with clear and practical steps for parents, families, and caregivers. Other efforts by the DOH include offering parents and caregivers education on the importance of ensuring infants have their own beds to reduce risks of sudden infant death syndrome (SIDS). The DOH distributed cribs to families encouraging safe sleep practices.

2) DOH continues to offer forums for members of public and private fatality reviews. Collaborative Fatality Review team members have agreed with community recommendations to conduct a death and birth certificate training by physicians for

physicians. A death certificate training was held in January 2022 with the DOH Vital Records representatives and City and County medical examiners and other pathologists. There are ongoing efforts to make the death certificate training video available to other physicians and to the medical school in Hawai'i, John A. Burns School of Medicine. Data utilized from birth and death certificates are critical pieces of information reviewed to be able to reduce and limit preventive child and maternal deaths.

3) The DOH continues to contract with local television and radio stations to utilize media for public service announcements on safe sleep education and the importance of prenatal care before birth and during pregnancy to target women and mothers 18-40 years of age. Media initiatives by the DOH also place emphasis on perinatal care during pregnancy, labor, delivery postpartum, and neonatal periods.
4) The DOH also continues to contract with the Child & Family Service for the administration of the "Parent Line," a DOH/MCHB-funded program that is a resource on child behavior, child development, parenting, caregiver support, and other community resources.
5) Coordination of domestic violence and rape prevention workshops and seminars for families and public and private agencies.

Child Death Review Implementation of Recommended Activities (January 2022 – December 2022)

Honolulu County

1) The DOH hired a new Child Death Review registered nurse Coordinator in November of 2021 that was able to provide statewide supports and resources in 2022 to registered nurses who are Child Death Review facilitators in Kaua'i, Maui, and Hawai'i counties. Conducted a virtual Hawai'i County Child Death Review in June 2022 as the Hawai'i County registered nurse position was vacant.
2) Created an infographic Child Death Review document for public and private agencies following recommendations from the 2021 John Hopkins School of Public Health through a seven-month participation in a pilot group to improve the prevention of child deaths and injuries.
3) DOH hosted the Healthy Outcomes from Positive Experiences (HOPE) sessions in Hawai'i created by the Tufts Medical Center, a paradigm shift in how professionals and families can see and talk about positive experiences that support children's growth and development into healthy resilient adults.
4) Hosted an Implicit Bias Training session from a Hawai'i cultural viewpoint with speakers from the John A. Burns School of Medicine with emphasis on Native Hawaiian and Pacific Islanders positive health outcomes**.**
5) Contracted with a pediatrician from the Hawai'i Children's Hospital, Kapi'olani Medical Center for Women and Children to embark on a pilot project where more comprehensive infant reviews were discussed with other neonatal physicians and other medical professionals.
6) Continued with the implementation of the Child Death Review recommendations of addressing drowning prevention measures, supports, and strategies with private and public agencies, City and County pool directors, American Red Cross, and Department of Education administrators.

Maui County (Maui, Lanaʻi, Molokaʻi)

1) Held two (2) DOH pediatric cardiac clinics this year to assist in keeping families healthy.
2) April 2022 - Contracted for services and resources on child abuse and neglect prevention activities.
3) Led a nutrition clinic for children with special health needs.
4) Conducted a Sudden Unexpected Infant Death (SUID) enactment “doll training” for agency professionals and first responders to provide tools and pertinent preventative information for those working with infants and children.
5) In collaboration with other DOH agencies, domestic violence training sessions were held statewide for stakeholders and included other public and private agencies and first responders.

Hawaiʻi County

1) The DOH hired a new registered nurse to assist in conducting the child death reviews in Hawaiʻi County with assistance, training, and support from the Oahʻu Child Death Review registered nurse statewide facilitator.
2) Ongoing efforts for staff recruitment and training of new staff continues.
3) September 2022 - Employee Health Fair held in West Hawaiʻi, including education on child restraint systems, COVID 19 vaccinations available for children, and heat stroke prevention sessions for children.
4) September 2022 - Presentation to second graders in North Hawaiʻi on buckling-up and the importance of booster seat usage. Disseminated information to parents on the new car passenger safety law in Hawaiʻi.
5) September 2022 - Provided a car passenger safety course in West Hawaiʻi in partnership with “Safe Keki Coalition” and the Judiciary that included Kona Community Hospital staff, with three police officers becoming certified car passenger safety technicians, allowing them to conduct training sessions to the public.
6) In partnership with the “Police and Safe Keiki Coalition,” provided a community car seat check-up event in East Hawaiʻi.

Kauaʻi County

1) Contracted with the “Kauaʻi Planning and Action Alliance“ for a Kauaʻi community health worker coordinator and a migrant community health worker specifically serving Pacific Islanders.
2) Purchased and distributed safety items for child death and injury prevention available for low-income and high-risk communities, car seats, children’s bike helmets, and children’s life jackets. Duffle bags for children in foster care were also purchased.
3) The DOH supported and assisted with “Tropic Care” where the military provides free medical, dental, and optical care for a week to families living in Kauaʻi.
4) Car seat inspections event held to disseminate information on safe and appropriate usage of car seats for children. Working on recruiting and providing certification for more car seat safety inspectors on Kauaʻi.

G. Collaborative Efforts

MCHB works in collaboration with community agencies (public and private) to assist in providing preventive strategies to reduce child deaths.

1) The DOH continues to support the Hawai‘i Maternal & Infant Health Collaborative, an influential public-private agency that assists in improving maternal and infant health outcomes and enhancing systems and supports for families and communities in Hawai‘i. Specific workgroups with community members place emphasis on preventive activities to reduce and limit preterm babies' deaths.
2) In partnership with public and private agencies, the DOH Family Health Services Division, Children with Special Health Needs Branch, working with the Hawai‘i Department of Human Services and Early Learning and other interested stakeholders, conducted a statewide conference with early childhood family care providers. State administrative rules were presented and there were also discussions on COVID-19 safety and precautions as the pandemic continues.
    a) A presentation on Developmental Milestones and "How to Learn the Signs" to act early with needed supports promoting independence for the child and family was held during grand rounds at the Kap‘iolani Medical Center for Women and Children with a developmental pediatrician and a speaker from the DOH.
    b) The DOH Early Intervention Section convened an Early Intervention Stakeholder Meeting in September 2022 with emphasis placed on two performance indicators: timely services and a Multidisciplinary Evaluation & Initial Individual Family Support Plan.
    c) The DOH attended the 2022 Hawai‘i Health Workforce Summit that offered sessions on access to care and addressing workforce shortages. The theme of the summit placed emphasis on focusing on solutions.

H. State Collaboration

1) The Maternal and Child Health Branch continued discussions with public and private agencies to provide a wide array of services, education, and supports to the many communities within Hawai‘i. Some of the topics included strategic and action planning for domestic violence, child abuse and neglect prevention, family planning services, adolescent health services, home visiting services, fatality review prevention, and rape prevention education.
2) Collaborative Fatality Review meetings continue to be facilitated by the FHSD/MCHB with public and private agencies to discuss system supports for fatality reviews and strategies to reduce and limit preventable deaths in Hawai‘i. Some topic areas discussed are:
    a) Recommendations from the team including possible legislative requests to improve state fatality systems.
    b) Strategies to reduce and limit preventable deaths for the residents and visitors of Hawai‘i.
    c) Identification of training/educational needs for fatality review stakeholders and the public.
    d) Supporting existing relationships with agencies that provide information to fatality reviews (e.g., medical examiners, vital records, medical, and other specialty reports).
    e) Establishing new relationships within the community to support preventive recommendation implementation for the public.

I. National Collaboration

1) Continued consultation with the National Center for Fatality Review and Prevention for technical support and use of the Case Reporting System.
2) The DOH in September 2022 sponsored staff, families, providers, and other stakeholders to attend the national annual CityMatCH conference held in Chicago, Illinois. The theme of the CityMatCH Conference was to strengthen public health leaders and organizations to promote equity and improve the health of urban women, families, and communities. Sessions emphasized family involvement to understand and govern their own services. Staff were also exposed to national trends and recommendations for implementing public health services and supports with referrals to medical services amid the COVID-19 pandemic. Strategies were also introduced at the conference to rebuild workforces, resources, and services while keeping staff and families safe. There were also multiple sessions on increasing and revitalizing graphic designs to get out information to families, public, and private agencies.
3) The DOH Women, Infants, and Children (WIC) Supplemental Nutrition Program participated in the Food and Nutrition Service Western Regional Office review to evaluate the operations and performance of the Hawai‘i WIC nutrition service policies, regulatory requirements, quality standards, and monitoring activities. Information gathered through the evaluation process included staff interviews, documentation reviews, and case file reviews.

MATERNAL MORTALITY REVIEW

The Department of Health (DOH) provides an annual report on the maternal mortality review activities conducted by the department, trends, and recommendations for system changes, and any purposed legislation. As experts in providing maternal guidance to all 50 states, the Centers for Disease Control and Prevention (CDC) describes positive pregnancy outcomes as healthy pregnancies that begin before conception and continue with regular prenatal care.

In Hawai‘i, healthcare providers are instrumental in helping women prepare for pregnancy and for any potential problems that may arise during pregnancy. Early initiation of prenatal care by pregnant women and continuous monitoring of pregnancy by health providers are important in helping to prevent and treat severe pregnancy-related complications.

A. Background and Purpose

Maternal mortality rates in the United States are higher than many other developed countries, and social factors may contribute to this difference. In Hawai‘i, approximately 10 to 12 women across the state die each year as a result of pregnancy or pregnancy-related complications. More than half of those deaths were deemed preventable. However, maternal morbidity and mortality do not affect all mothers equally. Native Hawaiian and Pacific Islander women experience maternal deaths at a higher rate, even though they make up a smaller proportion of women in the state, showing the persistent ethnic disparities. Moreover, combined data from the MMRIA system (Maternal Mortality Review Information Application-CDC) show that mental health disorders and substance use played an important role in maternal mortality in Hawai‘i.

The MMRIA system provides the following:

- A repository for the collection of clinical and non-clinical information surrounding a woman’s life and death, which can facilitate review by a jurisdiction based MMRC.
- Documentation of committee deliberations on:
    1. Whether the death was related to pregnancy
    2. If it could have been prevented
    3. Factors that contributed to the death
    4. Recommendations to prevent future deaths
- Quantitative and qualitative fields collecting information relevant to most pregnancy-related deaths that can be used for surveillance, monitoring, and examining maternal mortality.

Standardized data collection is the first step toward fully understanding the causes of maternal mortality and eliminating the preventable pregnancy-related deaths. Efforts to review maternal deaths are not a novel practice. The Hawai‘i Maternal Mortality Review Committee (HMMRC) was established in 2016 and held its first review of maternal deaths in 2017. The purpose of the Hawai‘i Maternal Mortality Review is to determine the causes of maternal mortality and identify public health and clinical interventions to improve systems of care and prevent future maternal deaths.

Maternal Mortality Review Process

In 2022, a new chairperson was appointed for the HMMRC and the Hawai‘i Maternal and Mortality Review policy and procedure manual that was developed in 2016 was also revised. The manual identifies that the Hawai‘i Maternal Mortality Review Committee reviews all maternal deaths in Hawai‘i. The process for a maternal mortality review in Hawai‘i is as follows:

1) A DOH Maternal and Child Health Branch (MCHB) research statistician works in collaboration with the DOH Vital Records Office to gather information on maternal deaths.
2) A DOH Maternal and Child Health Branch (MCHB) registered nurse abstractor trained by the CDC then reviews the available medical and other specialty reports to create case summaries discussed during the committee reviews.
3) The multiagency and multidisciplinary team reviews the case summaries.
4) A determination is made as to whether the death is pregnancy related or pregnancy associated.
    a) Pregnancy-related deaths are those that result from complications of pregnancy, the chain of events initiated by the pregnancy, or aggravation of an unrelated condition by the pregnancy.
    b) Pregnancy-associated deaths of a woman are from any cause while she is pregnant or within one year of termination of pregnancy.
5) Following the review of each maternal death, recommendations are made by the Hawai‘i Maternal Mortality Review Committee to create plans of action that address preventive strategies for pregnant women to limit and reduce future deaths. The committee members have access to de-identified clinical and non-clinical information, including medical records, social service records, and vital records to fully understand the drivers of maternal mortality, complications of pregnancy, and associated disparities. All this information serves as a foundation for developing impactful, targeted interventions.

According to the CDC, “A maternal death is defined as the death of a woman while pregnant or within 1 year of the end of a pregnancy–regardless of the outcome, duration or site of the pregnancy–from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes.”

The CDC collected data to support that over 700 women die from pregnancy-related complications each year in the United States, and in Hawai‘i, 80% of pregnancy-related deaths were found to be preventable. Moreover, mental health conditions are one of the leading causes of pregnancy-related death. In addition, while a mental health condition (including substance use disorder) may not have caused the death, it may have contributed to the death. The association between illness and mortality is complicated because mental illness does not directly kill women. It serves as an underlying factor that may result in suicide, accidental death, and death due to accidental drug intoxication or homicide.

Amid the current coronavirus pandemic, the CDC continues to advise that pregnant people are at an increased risk for severe illness from COVID-19 as compared to non-pregnant people.

The CDC recommends the COVID-19 vaccination for everyone 6 month of age and older, including people who are trying to get pregnant now or might become pregnant in the future and their partners. Those who are fully vaccinated have a lower risk of severe illness, hospitalization, and death from COVID-19. Moreover, updated COVID-19 boosters can help restore protection that has decreased since previous vaccination. The boosters provide added protection against the most recent Omicron subvariants that are more contagious than the previous ones. The most recent subvariants, BA.4 and BA.5, are very closely related to the original variant, Omicron, with very small differences between itself and the original variant.

Professional medical organizations serving people of reproductive age, including adolescents, emphasize that there is no evidence that the COVID-19 vaccination causes a loss of fertility.

These organizations also recommend COVID-19 vaccination for people who may consider getting pregnant. According to the CDC, COVID-19 vaccination and boosters are recommended for people who are pregnant, breastfeeding, trying to get pregnant, or might become pregnant in the future.

The World Health Organization also recommends strong surveillance and testing of pregnant women to ensure well-being and that pregnant women should take the same precautions to avoid COVID-19 infection as others: frequent hand washing; avoid crowed places; maintain distance from others; get tested for COVID-19 if needed; stay home if you have suspected of confirmed COVID-19; seek treatment if you have COVID-19 and are at high risk of getting very sick; improve ventilation; and wear a mask or ventilator (for example N95). Note: When wearing a mask or respirator, it is most important to choose one that you can wear correctly, fits closely to the face over the mouth and nose, provides good protection, and is comfortable.

The increased focus on maternal mortality during the pandemic has exacerbated the need for continuous collaboration between Hawai‘i public health agencies and medical healthcare organizations as these groups have mostly worked independently, which impedes standardized data collection and information-sharing between committees. The rising rates of maternal deaths despite medical advances highlight the need for accurate data collection, standard definitions across review committees, and the inclusion of information regarding access to care in addition to race and ethnicity to implement strategies that effectively reduce maternal mortality.

Program Activities

The activities below were completed in 2022:

1) Continued to follow the national and local recommendations from the Centers for Disease Control and Prevention (CDC) and the Hawai‘i State Department of Health (DOH) on the guidelines for COVID-19 prevention and other related health information amid the pandemic. The CDC is always updating its resources and tools to help pregnant and recently pregnant people, breastfeeding people, and new parents caring for infants protect their health and to help people who serve these communities communicate with them. For instance, when a person is pregnant or was recently pregnant, this person is more likely to get severely ill from COVID-19 compared to people who are not pregnant. Pregnancy causes changes in the body that could make it easier to get very sick from respiratory viruses like the one that causes COVID-19. These changes in the body can continue after pregnancy. Severe illness means that a person with COVID-19 may need: hospitalization, admission into an intensive care unit (ICU), or a ventilator or special equipment to help them breathe. Other factors can further increase the risk for getting very sick from COVID-19 during or recently after pregnancy, such as:

    a) Having certain underlying medical conditions
    b) Being older than 25 years
    c) Living or working in a community with high numbers of COVID-19 cases
    d) Living or working in a community with low levels of COVID-19 vaccination
    e) Working in places where it is difficult or not possible to keep at least 6 feet apart from people who might be sick
    f) Being a part of some racial and ethnic minority groups, which have been put at increased risk of getting sick from COVID-19 because of the health inequities they face

According to the CDC systematic review process, Covid-19 can have certain effect on pregnancy outcomes as people with COVID-19 during pregnancy are more likely to experience complications that can affect their pregnancy and developing baby compared to people without COVID-19 during pregnancy. For example, COVID-19 during pregnancy increases the risk of delivering a preterm (earlier than 37 weeks) or stillborn infant. The CDC continues to learn about COVID-19 and associated underlying medical conditions that put people ages 18 years and older at higher risk of severe illness. The methods used to assess the conditions have changed during the pandemic as the amount of literature and types of studies increased.

2) There were two Hawai‘i Maternal Mortality Review Committee (HMMRC) meetings in June and December to review 2019 and 2020 maternal deaths. Also, it was discussed whether prevention strategies were based on the findings. Fatality review meetings were held via teleconferencing utilizing a secure virtual platform due to the ongoing pandemic.

3) Updated the HMMRC recommendations list by category: system/provider, medical, community based, social support/care, substance abuse/mental health, and cultural recommendations. In 2022, a compilation of hospital centric and public health activities was created based on HMMRC recommendations. Raw notes were compiled into actionable recommendations and shared with the Healthcare Association of Hawai'i (HAH) to line up with the Hawai'i Perinatal Quality Committee (HPQC) initiatives. This recommendation compilation aims to inform and establish future collaborative initiatives/undertakings as HPQC acts as a key stakeholder in translating recommendations to action, as demonstrated by the formation of the AIM HPQC in Spring 2021 and prioritization of quality measures to address obstetric hemorrhage and severe hypertension cases.

DOH's Maternal and Child Health Branch (MCHB) is committed to supporting HPQC in enhancing the state-focused maternal health task force and its activities to address Hawai'i's most recent 5-year Title V Needs Assessment and other existing maternal mortality efforts of the state Title V MCH Block Grant. MCHB is also committed to collaborating with HPQC to improve the state's capacity for generating high quality, valid, timely, and accessible maternal health data, at least in part through sharing pertinent state data and information systems.

4) FHSD continues to administer the Pregnancy Risk Assessment Monitoring System (PRAMS) funded by the CDC, which is a population-based surveillance system that identifies and monitors maternal experiences, attitudes, and behaviors from preconception through pregnancy and into the interconception period. Data reviewed from the Hawai‘i PRAMS is utilized by professionals and public/private agencies to plan for future interventions promoting healthy outcomes for the women and children of Hawai‘i.

5) FHSD/MCHB continued to work with the public health community organization Hawai‘i Children's Action Network to coordinate trainings and build workforce capacity for individuals/agencies that provide services to expectant and new moms. Primary stakeholders include physicians, healthcare providers, and other non-clinical staff.

6) In 2022, MCHB offered a Death Certificate Training and Contextualizing Maternal Health in Hawai'i – Unconscious Bias Training. Some planned training topics for the next year include Alliance for Innovation on Mental Health (AIM), Substance Use Disorder, Screening, Brief Intervention and Referral to Treatment (SBIRT) training, Suicide Prevention Awareness training, and more presentations focused on Implicit Bias, and Death Certificate trainings for new grads in collaboration with the John A. Burns School of Medicine (JABSOM).

7) In November 2021, the CDC released a national call for Maternal Mortality Review Information Application (MMRIA) data for use in aggregate analyses, compiling data from all jurisdictions using MMRIA. That was the CDC's first national call for MMRIA data since the start of the Enhancing Reviews and Surveillance to Eliminate Maternal Mortality (ERASE MM) in 2019. MCHB signed a Data Sharing agreement with the CDC to allow for sharing of HMMR Committee data collected in the CDC's (MMRIA). The CDC utilizes this data to improve data quality, identify technical assistance needs, and perform detailed analyses across MMRIA users regarding maternal deaths.

8) In 2021, FHSD/MCHB co-led the Pre/Inter-Conception Workgroup of the Hawai'i Maternal and Infant Health Collaborative (HMIHC). The Pre/Inter- Conception Workgroup is one of several workgroups of the HMIHC's Early Childhood Action Strategy Team One "Healthy & Welcomed Births." The goal of HMIHC is to improve maternal and infant health outcomes while advancing health equity and reproductive justice by enhancing systems and support for Hawai'i families and communities.

9) FHSD/MCHB continued to provide support and resources for three major projects of the HMIHC Pre/Inter-Conception Workgroup: Statewide One Key Question Certification, Access to Birth Control Methods, and the Pregnancy and Sexually Transmitted Disease Prevention Incentive Project for Adolescents and Young Adults. These projects were implemented in collaboration with a health or community-based organization. All three projects focus on increasing access to birth control methods, family planning, and preventing the spread of STDs and Sexually Transmitted Infections.

10) FHSD/MCHB continued to partner with the community-based organization TeenLink Hawaii under the Coalition for a Drug-Free Hawaii. Teen Links Hawaii is a web-based support for teens that provides youth empowerment, outreach, education, and training on many topics (e.g., relations building, cooking, mental health supports, etc.). TeenLink also provides referral services for teens, parents, caregivers, educators, and the general public.

11) MCHB Family Planning and Perinatal Support Services Programs combined contracts for the underinsured and uninsured to offer an array of clinical and reproductive health services for adolescents, women, and men before, during, and after pregnancy, promoting healthy lifestyles and reproductive health planning.

12) MCHB continued to support and contract with the public health community organization Healthy Mothers, Healthy Babies (HMHB) to assist with the activities listed below:

    a) AIM project – supporting the distribution of blood pressure cuffs, with each hospital receiving an allocation of cuffs for patients to take home as part of AIM's hypertension in pregnancy bundle. Queens Medical Center is currently participating in the project with Kaiser also interested in joining.
    b) Buying equipment for home kits such as drawstring bags, BP machine, doppler, urine dip sticks, measuring tape, flashlight, manual breast pumps, ice pack, pulse oximeter, thermometer, and a fetal monitor for the HMHB mobile clinic.
    c) Supporting to assist with equipment for the second mobile unit that will be located on Hawai'i Island.
    d) Mental Health training/support/webinar/telehealth assistance (postpartum depression, substance use).

Collaborative Efforts – Hawai‘i

1) Trauma-Informed Care approaches are vital to address the impact of trauma that affects every aspect of health. The CDC has reported that there is no single technique to address trauma-informed approaches that benefit staff and clients. However, key elements include safety; trustworthiness/transparency; peer support; collaboration; empowerment; voice and choice; and considering cultural, historical, and gender issues.

In 2022, FHSD/MCHB continued to engage in activities to review and approach the impact of trauma from a public health perspective, including:

   a) Early Identification and Home Visiting contracts contain language requiring providers to “build their capacity” to implement a trauma-informed approach to care.
   b) Forums were created to convene partners engaged in trauma-informed care and related initiatives to share existing work to review what is currently occurring across the state.
   c) The MCHB-administered Maternal, Infant, and Early Childhood Home Visiting Program (MIECHV) grant implemented a model “Healthy Families America” and provided opportunities for virtual attendance at a national conference to support professional development and to obtain information on integrating trauma-informed approaches into parent surveys.

2) FHSD/MCHB continues to arrange for meetings with local experts on trauma-informed care to arrange for future activities, including training for staff and community stakeholders on how to incorporate best practice trauma-informed care approaches, improving client and staff well-being.

3) Collaborative Fatality Review meetings are facilitated by FHSD/MCHB with public and private agencies to discuss system supports for fatality reviews and strategies to reduce and limit preventable deaths in Hawai‘i. Some topic areas discussed are:

   a) Recommendations from the team that included possible legislative requests to improve state fatality systems such as the Fetal and Infant Mortality Review (FIMR) project.
   b) Strategies to reduce and limit preventable deaths for the residents and visitors of Hawai‘i.
   c) Identification of training/educational needs for fatality review stakeholders and the general public.
   d) Supporting existing relationships with agencies that provide information to fatality reviews (e.g., medical examiners, vital records, medical, and other specialty reports).
   e) Establishing new relationships within the community to support preventive recommendation implementation for the general public.

4) The Hawai’i Maternal & Infant Health Collaborative places emphasis on improving maternal and infant health outcomes for families and children of Hawai‘i. The group consists of public-private partners including representatives from MCHB and DOH Office of Planning Policy and Program Development. The group provides announcements,

recommendations, and supports to the partners of the Collaborative.

D. National Collaborative Efforts 2022

1) The State DOH and HMMR team will continue to consult with and attend pertinent trainings from the CDC, Partnerships & Resources Maternal Mortality Prevention Team. This practice will assist and support the HMMR in utilizing best practices, ensuring that quality data and recommendations are in place to prevent and reduce maternal deaths.

    a) Technical assistance is available to the DOH FHSD/MCHB HMMR Committee from the CDC on items related to maternal mortality and morbidity.
    b) Virtual resources and workshops are also offered throughout the year.
    c) In September 2022, the CDC released a data brief on 1,018 pregnancy-related deaths among residents of 36 states from 2017-2019 showing the following:

        i. More than 80% of pregnancy-related deaths were preventable.
        ii. About 53% of pregnancy-related deaths with information on timing occurred between 7 days to 1 year after pregnancy.
        iii. The most frequent underlying cause of death varied by race and ethnicity.
        iv. Cardiac and coronary conditions were the most frequent underlying cause of pregnancy-related deaths among non-Hispanic Black people.
        v. Mental health conditions were the most frequent underlying cause for Hispanic and non-Hispanic White people.
        vi. 8% of pregnancy related deaths were determined to be suicide and 3% to be homicide.
        vii. Hemorrhage was the most frequent underlying cause for non-Hispanic Asian people.

In addition, the CDC released a second brief in October 2022, ***Pregnancy-Related Deaths Among American Indian or Alaska Native Persons: Data from Maternal Mortality Review Committees in 36 US States, 2017–2019***, that provides more specific information on pregnancy-related deaths among American Indian or Alaska Native (AIAN) people, who are disproportionally impacted by maternal mortality. Based on the review of pregnancy-related deaths among AIAN people, mental health conditions and hemorrhage were the most common underlying cause of death, accounting for 50% of deaths with a known underlying cause. Most pregnancy-related deaths of AIAN people were determined to be preventable (93%). About 64% of deaths occurred between 7 days to 1 year after pregnancy.

FHSD/MCHB provided opportunities and paid registration fees allowing for virtual and in-person attendance at national conferences for families, community stakeholders, and FHSD/MCHB staff at the 2022 “Association of Maternal and Child Health Programs” (AMCHP). AMCHP and CityMatCH conferences allow access to MCH leaders and companies working on maternal and child health which facilitates networking with public health officials who share an interest in maternal and child health as well.

    a) Both public and private partners are involved with prevention activities to reduce and limit maternal and child deaths.

b) The AMCHP 2022 Virtual Conference and CityMatCH 2022 in person conference are also informative offering sessions on the basic to intermediary aspects of collecting, processing, and analyzing data pertinent to maternal health wellness for women, children, and families.
c) Of equal importance are the sessions on the new ongoing analytical training for state and local health agencies. These training sessions place great emphasis on enhancing local capacity to provide information to communities on health prevention, data report writing, reprioritizing performance measures, program evaluations, needs assessment and supporting community members in achieving positive health potential and outcomes with no barriers.

2) FHSD/MCHB continues to administer the Community Based Child Abuse Prevention Grant (CBCAP) program that provided supports to assist with ensuring health, safety, and educational resources amid the ongoing pandemic to Pacific Islander and Micronesian families and their children.

    a) Laptops, hot spots, and related technology were purchased to assist children with distance learning and to enable families the opportunities to engage in virtual medical appointments with physicians and other healthcare providers.
    b) Essential packages containing personal health products; dental items; diapers; bathing items; and personal protective equipment (e.g., masks, gloves, sanitizers, etc.) were also distributed to assist families in maintaining optimal health, safety, and hygiene. These packages were also made available and distributed to houseless/homeless families.

3) Domestic Violence & Sexual Assault supports continued in 2022 with the FHSD/MCHB "Domestic Violence Fatality Reviews" enabling public and private agencies to conduct virtual statewide near death and death reviews as related to domestic violence for men, women, and children.

4) FHSD/MCHB continues to administer the Maternal, Infant, Early Childhood, Home Visiting Program grant and completed the following activities contributing to preventive measures for women, families, and children:

    a) Technology was used to support contracted providers in submitting referrals and other required documents in an electronic system, allowing for more staff hours working with families.
    b) Home visiting providers were supported in conducting virtual visits to families, women, and children.
    c) Continued voluntary, evidence-based services and supports empowering families with tools to thrive. Some of these services include providing family strengthening strategies, connections to clinical providers, and referrals to other needed community services.
    d) The MIECHV Program supports home visiting for pregnant women and families with children up to kindergarten entry living in communities at risk for poor maternal and child health outcomes.
    e) Home visits are conducted by nurses, social workers, early childhood educators, or other trained professionals during pregnancy and early childhood to support in improving the lives of women, children, and families

E. Hawai'i Maternal Mortality Review Data

During 2022, the committee reviewed 10 maternal deaths occurring in the calendar year 2019 and started the 2020 review. Information on the deaths were obtained from the DOH Office of Health Status Monitoring (Vital Records).

1) 2020 – There were 12 maternal deaths reported. During the December 2022 meeting, the 2020 cases were started. Information below was abstracted from DOH Vital Records prior to the case reviews by the Hawai‘i Maternal Mortality Review Committee.
    a) Of the 12 maternal deaths, the categories of the manner of death include: accident (4), homicide (1), suicide (1), natural (6)
    b) Trends – Four deaths were accidents.
    c) The age range of the maternal deaths: 23-43 years
    d) Residence County of maternal deaths
        i. Accident – Honolulu (2), Hawai‘i County (2)
        ii. Homicide – Honolulu (1)
        iii. Suicide – Honolulu (1)
        iv. Natural – Honolulu (3), Mainland (1), Hawai‘i Island (1), Maui (1)

2) 2021 – There were 11 maternal deaths reported. Information below was abstracted from DOH Vital Records prior to the case reviews by the Hawai'i Maternal Mortality Review Committee.
    a) Of the 11 maternal deaths, the categories of the manner of death include: accident (1), suicide (2), natural (7), pending (1)
    b) Trends – Two deaths were suicides.
    c) The age range of the maternal deaths: 19-46 years
    d) Residence County of maternal deaths
        i. Accident – Honolulu (1)
        ii. Suicide – Kaua‘i (1), Maui (1)
        iii. Natural – Honolulu (6), Hawai'i Island (1)
        iv. Pending – Honolulu (1)

F. Recommendations and Action

1) DOH FHSD/MCHB will continue to provide trainings for health care professionals on how to properly complete a death certificate as methodological decisions about racial classification can impact the size and characteristics of the population used in an analysis. Understanding differences in the underlying causes of pregnancy-related death by race and ethnicity is important for identifying prevention opportunities to reduce pregnancy-related deaths.

2) DOH FHSD/MCHB will continue to provide blood pressure equipment resources (i.e., some equipment not covered by insurance) and education for postpartum women with hypertension.

3) DOH FHSD/MCHB to participate in discussions and possible decision-making to support recommending implementation from a public health perspective with interested community partners on Hawai‘i-based AIM (Alliance for Innovation on Maternal Health),

a national data-driven, maternal safety, and quality improvement initiative with focus on the care for pregnant and postpartum people with substance use disorder (SUD) bundle.

4) DOH FHSD/MCHB to continue as a committee member on the Hawai‘i Maternal & Infant Health Collaborative and Recommendation Implementation Workgroups: Preterm/Maternal Mortality Review & Pre/Inter-Conception.

5) In recognition of the importance of healthy pregnancies, MCHB will continue to lead the effort to encourage improved coordination of implementing the “One Key Question®” (the power to decide if, when, and under what circumstances to get pregnant and have a child) in hospitals, health centers, and private physician offices and increase the presence of school-based health centers (e.g., college campuses) as a way to improve access to contraception and family planning for younger women.

6) DOH FHSD/MCHB will continue to facilitate meetings with interested private and public stakeholders to discuss plans of action for the implementation of Hawai‘i Maternal Mortality Review recommendations from a public health and medical perspective with focus on educating the community about the importance and realities of mental health care to prevent stigma and to support strategies to diversify the mental health workforce.

7) DOH FHSD/MCHB will continue to offer implicit bias training to increase the cultural competency/humility of the clinical workforce, focusing on the important context of the maternal health disparities observed by public health and other health professionals in their work. Those trainings emphasize historical influences that have contributed to deep rooted social inequities, discrimination, and biases that impact the health and well-being of Native Hawaiians and Pacific Islanders.

8) DOH FHSD/MCHB will explore approaches to increase the number of health navigators and interpreters at clinics/provider’s offices and the development of a women-centered mechanism that provides incentives to women and their families for obtaining preventive services.

9) DOH FHSD/MCHB will support increased access to mental health care through initiatives such as a psychiatric consultation line for primary care providers and telemedicine options for patients that allow prepartum and postpartum people to communicate with providers outside of the office visits.

10) DOH FHSD/MCHB will support strategies that would mitigate the complexity of the healthcare delivery system to make navigating easier, including increased availability of online appointments outside traditional hours; drop-in/walk-in appointments; increased availability of online/phone health care consultation; option to have doulas; and the ability of providers to conduct home visits and/or provide care through mobile clinic sites, especially in rural areas of Hawai’i Island.