MATERNAL AND CHILD DEATH REVIEW PROGRAM

2019 QUARTERLY REPORT & RECOMMENDATION SUMMARY (APRIL - JUNE)

ABOUT THE PROGRAM

The Alaska Maternal and Child Death Review (MCDR) program resembles the nationally recommended evidence-based model for systematically and comprehensively reviewing deaths using a multi-disciplinary decision making approach. Built on the public health approach, this model specifically aims to identify causes and contributing factors to maternal, infant, and child deaths in Alaska and develop recommendations to prevent future deaths. This goal is accomplished through expert committee reviews of medical records, autopsy reports, death scene investigation reports, and other relevant information that is compiled for every death.

MCDR committee members serve on a voluntary basis and are approved by the Department of Health and Social Services (DHSS) Commissioner and State of Alaska Medical Board. Committee membership include professionals with expertise in the field of maternal and child health and injury prevention, including pediatricians, neonatologists, obstetricians, and nurses as well as social workers, public health professionals, emergency response workers, and child protection workers.

ABOUT THIS REPORT

This report is limited to the deaths of children aged 0 to 17 years that were reviewed by the MCDR Committee during the second quarter of 2019 (April – June) (n=25). This report does not include information on maternal mortality as those deaths were not reviewed during this quarter. The MCDR Committee reviews case files when all applicable records related to the death have been received, which can be several months following a fatality. Therefore, the information presented in this report does not represent the incidence or trend of child deaths in Alaska during this timeframe, but does describe the characteristics and prevention recommendations of those deaths reviewed.

This report is based only on the recommendations of services and public health efforts known to committee members who were present at the review meetings, and may not reflect all prevention/service efforts in place at the time of death or currently available.

Suicides are described within their own section as this is a priority area for prevention in Alaska. This report contains all recommendations generated by the committee for all 25 deaths reviewed during this quarter (both preventable and non-preventable).

INFANT DEATHS (UNDER 1 YEAR OF AGE) (APRIL-JUNE 2019)

- The committee reviewed 11 infant deaths. 4 deaths were due to unintentional asphyxia. 6 deaths were due to medical causes and 1 death had an undetermined cause.
- The undetermined death and the 4 deaths due to unintentional asphyxia were all classified as Sudden Unexpected Infant Deaths (SUID) by the MCDR committee using the Centers for Disease Control and Prevention (CDC) classification guidelines.
- 3 deaths occurred in the neonatal period. 8 deaths occurred in the postneonatal period.
- The review committee generated 10 recommendations related to the 11 infant deaths reviewed, and determined that 6 of the deaths could have been prevented (55%).

Table 1. Prevention recommendations: Infant injury deaths

Cause of injury *n = number of cases with recommendations	Committee Recommendations
Unintentional Asphyxia/SUID (n=4)	After delivery, the umbilical cord segments of infants whose mother had a reported or documented drug history should be tested; Caregivers should follow safe sleep recommendations and risk reduction techniques; Require toxicology testing for all caregivers directly involved in sudden unexplained infant death.
	Educate parents about safe sleep guidance and risk reduction techniques, with particular emphasis on how exhaustion and substance impairment are associated with higher risks of SUID while co-sleeping and breastfeeding; Require toxicology testing for all caregivers directly involved in sudden unexplained infant death.
	OCS should be more involved when the mother has multiple reports of harming children; Hospitals/OCS/Vital Records should implement birth-match program to ensure that OCS is notified when an identified high risk mother delivers; Implement a review of hospital discharge practices/policies; Provide LARC's to high-risk mothers; Provide mental health support for mothers actively involved with OCS during pregnancy; The Medical Examiner should request the SUIDI Form from law enforcement even when the infant is medically transported after a sleep related incident and later dies at the hospital.
	Develop a system where child welfare or child advocacy centers notify primary care providers (PCP) of investigations/reports of abuse/neglect similar to the military's system (maybe implement a policy where PCPs are always contacted as collaterals during investigations); Always get toxicology testing on all caregivers present when a child dies; State Medical Examiner should conduct additional SUID death scene

	investigation trainings; Conduct research for possible connection between prenatal use of mental health medications and SUID/SIDS; Continue safe sleep education, including risk reduction techniques, and ensure that education includes parental obesity as a risk factor; Always check for channelopathies and retinal hemorrhages in all SUID cases.

Table 2. Prevention recommendations: Infant Medical/Undetermined deaths

Cause of death *n = number of cases with recommendations	Committee Recommendations
Medical (n=5)	Consider earlier SYNAGIS dosing for premature infants prior to discharge from hospital when Respiratory Syncytial Virus (RSV) season is approaching; Women of childbearing age with active substance use disorders should be offered immediate postpartum LARCs; PSA about the risk of placental abruption and premature delivery when substances are used during pregnancy.
	Genetic testing should be offered to all parents whose child died due to a congenital anomaly with genetic predisposition; Early and appropriate palliative care should be offered even if the child's medical condition is not viable.
	Ensure that at least one person in the delivery room has received PALS (Pediatric Advanced Life Support) training to treat SVT (Supraventricular Tachycardia) when the neonatal resuscitation program (NRP) is not working ; Healthcare providers should consider an earlier blood transfusion when a sinusoidal fetal heart rate pattern is observed during examination; Healthcare providers should also, in addition to the routine test, order "TORCH" test (toxoplasmosis, other agents, rubella, cytomegalovirus, herpes simplex) which, if positive, could affect and harm the unborn baby.
	When a child brought to the clinic/hospital is clearly sick, lethargic and with abnormal blood cultures, healthcare providers should immediately think of Haemophilus influenza and treat appropriately until proven otherwise; Strict monitoring of the child's condition for an early recognition of stroke/seizures and antiepileptic drugs should be initiated; Develop state-wide protocols for possible Haemophilus influenza type a (Hia) and Haemophilus influenza type b (Hib) cases; All consulting providers should appropriately document their consult in the patient's chart; Add Hia to guide of AK specific conditions/disorders and better train locums (YKHC's wiki is a great starting point yk-health.org); Treatment of infections in infants younger than 90 days in rural areas in

	Alaska should not follow the national standards, but should be Alaska-specific/more aggressive; Develop Hia immunization.
	Conduct research on the possible link between prenatal mental health medication use and Sudden Unexpected Infant Deaths (SUIDs); Continue work on safe sleep education and risk reduction techniques already implemented.
Undetermined/SUID (n=1)	Give out free carbon monoxide detectors to new parents; After delivery, umbilical cord segments of infants whose mother had a reported or document positive drug history should be tested; All caregivers should be CPR verified within 30 days of placing the children; Encourage appropriate vaccinations of all babies; Practice handwashing and boiling water when preparing baby formula; Educate parents about safe sleep guidance and risk reduction techniques.

CHILD DEATHS 1-17 YEARS (EXCLUDING SUICIDE) (APRIL-JUNE 2019)

- The committee reviewed 11 deaths of children ages 1-17 years. 9 child deaths were due to medical causes. 1 death was due to injury (firearm) and 1 death was undetermined.
- Of the 11 child deaths reviewed this quarter, the review committee generated prevention recommendations for 9 cases and determined that 3 of the deaths could have been prevented (27%).

Table 3. Prevention recommendations: Child injury deaths

Cause of injury *n = number of cases with recommendations	Committee Recommendations
Assault, weapon (n=1)	When there are three or more reports of harm that have been investigated, OCS should conduct a robust assessment and consider an appropriate intervention. Create a differential response program to provide targeted services to high-risk families who have multiple contacts with CPS but do not meet the threshold for CPS intervention.

Table 4. Prevention recommendations: Child Medical/Undetermined deaths

Cause of death *n = number of cases with recommendations	Committee Recommendations
Medical (n=7)	All clinical providers caring for children should receive PALS training and support from administration to complete trainings; Consider implementing system for OR (operating room) staff to have PICU staff lead codes for

	children; hospitals should do simulations for codes in the operating room; Root Cause Analysis and/or M&M (Morbidity and Mortality) should be performed at hospitals for any unexpected death; Training should be conducted on code documentation and using an auto populating EHR (Electronic Health Record) system).
	At risk populations (immunocompromised) should receive an annual influenza vaccination; G-tube dependent children should have an annual nutritional evaluation
	Broaden criteria for approved use of prescription medication that is used to help prevent respiratory syncytial virus (RSV) in children.
	Medically complex children (fragile) should especially receive all age-appropriate vaccines; In rural settings, healthcare providers should receive additional training on intraosseous (IO) needle placement to allow immediate resuscitation in case of pediatric emergencies when there is no or inadequate IV access.
	Provide training for OCS workers on understanding medical terminology and suspicious injuries (designate some workers as consultants for these types of cases); Improve screening for foster homes-implement checks in the system to ensure that workers are not friends with families they are investigating; expand access to pediatric palliative care services; Any child taken into OCS custody with medical needs, even minor, should have a transfer of care appointment set up before foster parent takes the child home or as soon as possible.
	Develop a publicly available vaccine against adenovirus using the already available pills for those joining the military boot camp for trials.
	Increase staffing for home nursing provider (children/families are not getting as many hours as they are approved for due to staffing shortages); Increase access to pediatric hospice care; long-term home nurses should receive grief support when their patients pass away.
Undetermined (n=1)	OCS and all mental health providers should include questions about future pregnancy plans to clients when mental health is negatively impacting them or their children, for example “Would you like to become pregnant in the next year?” and then make appropriate referral; Increase public awareness about safe surrender program in the community and all birthing and prenatal facilities.

ADOLESCENT SUICIDE (APRIL-JUNE 2019)

- The committee reviewed 3 adolescent suicide death. The review committee determined that all these three deaths could have been prevented and generated prevention recommendation for the three cases.

Table 5. Prevention recommendations: Adolescent suicide

Cause of death *n = number of cases with recommendations	Committee Recommendations
Firearm (n=3)	Expand education on limiting access to firearms, safe firearm storage and proper firearm handling/use statewide. Implement school supports for teens (those in crisis, with multiple social stressors, known suicide ideation, etc.). Increase care coordination and communication between primary care provider and mental health providers, especially related to multiple prescriptions; Remove barriers to sharing information between health care providers; Initiate a Home Health visitation program for suicidal teens.
	Implement a policy requiring medical examiner and law enforcement officers to automatically report any suicide to OCS for welfare checks of any other children in family; Improve community education and family response to adolescent suicidal indicators and risk factors such as prior attempts, bullying, gender identity, social isolation, etc. Make regular well child visits that include depression screenings, even at problem-based visits; If child hasn't been to doctor in a while, and child comes for problem visit, providers should also do depression screening; OCS workers should include depression screening (PHQ-4 when visiting with adolescent clients; Injury prevention programs should emphasize parent education on securing firearms with children in the home, especially if child is displaying suicidal ideation, depression or any mental health issues; Conduct public education and media campaign on firearm storage and safety socially acceptable in Alaska, to include specific statistics on child deaths by firearms.
	Provide education to parents, teachers and teens to not minimize statements by teens that could be suicidal; Implement peer-to-peer support groups to prevent teen suicides; Expand education on limiting access to firearms, safe firearm storage and proper firearm handling/use statewide. Provide free gunlocks to new parents and encourage teaching gun safety early; Provide elders with additional training to counsel families after suicide.