

Preventing Maternal Mortality and Morbidity

Preventing Maternal Mortality and Morbidity among American Indian, Alaska Native and Native Hawaiian People

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EXECUTIVE SUMMARY

American Indian/Alaska Native (AI/AN) and Native Hawaiian (NH) people who are pregnant or postpartum experience persistently elevated maternal mortality and severe maternal morbidity (SMM) compared to their Non-Hispanic White (NHW) counterparts, with preventable causes such as hemorrhage, hypertension disorders, cardiovascular disease, perinatal mental health conditions, substance use and violence (including interpersonal violence and Missing Murdered Indigenous People, or MMIP) as major drivers. Wide preventability gaps such as: systemic underfunding, poor access to culturally anchored care, and rural maternity care shortages, coupled with major data obstacles including under counting, racial misclassification, data aggregation and viewing this population as a “small numbers” population obscure the full scope of disparities, leading to policy blind spots.

However, when carefully reviewed, we see large disparities in the data. In 2021, 13.5% of pregnancy-related deaths among AI/AN women occurred during pregnancy, 18.9% on the day of delivery or within the first week postpartum, and 67.5% between 7 days and 1 year postpartum (CDC, 2025). Mental health conditions were the leading cause of death, followed by infection with 100% of AI/AN pregnancy-related deaths were determined by 36 maternal mortality review committees to be preventable, with more than half of the recommendations aimed at system-level change (CDC, 2025). Among NH disaggregated data, we see higher rates of pregnancy-related mortality (62.8 per 100,000) compared to their Non Hispanic-White (NHW) counterparts (14.1 per 100,000) (Ndugga et al., 2024).

Additional findings from the Maternal Mortality Review Committee (MMRC) show that over half of the NH deaths were preventable, with hemorrhage and hypertensive disorders as leading causes (Maykin et al., n.d.). State and Tribal analyses and federal reporting converge on the same themes which affect understanding of the scope of disparities, as well as preventing thriving maternal health and include: (1) under-counting and misclassification of AI/AN and NH populations in vital statistics and surveillance systems; (2) disproportionate burdens of chronic disease, mental health conditions, hemorrhage, and cardiometabolic risks; (3) compounding risks from rural service closures and under-resourced systems; (4) high exposure to interpersonal violence (including homicide) and the overlapping Missing and Murdered Indigenous Women/Girls/People (MMIWGP) crisis among the AI/AN population; and (5) harmful carceral practices during pregnancy and postpartum. MMRCs consistently find that more than 80% of pregnancy-related deaths are preventable, and in 2021 MMRCs identified 100% of AI/AN maternal deaths were preventable (CDC, 2025), with targeted policies able to close gaps.

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Top Legislative Actions

1. Require adoption of the 2024 OMB race/ethnicity data standard (combined question; detailed reporting for AI/AN and NH) across all state health programs, contractors, and grantees; fund Tribal/state data-sharing MOUs that honor Tribal data sovereignty. Disaggregation is particularly critical in Hawai'i, where combined Asian/Pacific Islander reporting has historically masked the disproportionately high rates of gestational diabetes and postpartum hemorrhage among Native Hawaiian women (Chang et al., 2015).
2. Mandate MMRC, Pregnancy Risk Monitoring System (PRAMS), Maternal Mortality Review Information App (MMRIA) and the Enhancing Reviews and Surveillance to Eliminate Maternal Mortality (ERASE MM) enhancements which include: Tribal representation, Tribal Epidemiology Center (TEC) partnerships, and Indian Health Service (IHS) linkage to reduce AI/AN misclassification on birth/death records, as well as Tribal Consultation to be a part of this process from data collection to analysis.
3. Guarantee 12-month Medicaid/CHIP postpartum coverage and expand coverage for doulas, certified midwives, certified professional midwives, lactation, and culturally-rooted perinatal supports (including at IHS/Tribal and NH communities).
 - a. Medicaid Postpartum 12-Month Expansion
 - i. Wisconsin is the only state that **does not** provide 12-month Medicaid postpartum coverage
 - ii. The U.S. Virgin Islands **is the only** U.S. territory which guarantees 12-month Medicaid postpartum coverage; American Samoa, Guam, Puerto Rico and the Northern Mariana Islands **do not** have 12-month Medicaid postpartum coverage.
 - iii. Medicaid covers the majority of NH births, making extended postpartum coverage and culturally rooted perinatal care—such as Native Hawaiian traditional birthing practices and community-based doula services—key levers for reducing preventable mortality .
 - b. Reimbursement for Doulas
 - i. As of September 15, 2025, only 21 states and the District of Columbia have implemented Medicaid coverage for doula services through approved State Plan Amendments with CMS. These states include: Oregon; Minnesota; Florida; New Jersey; Virginia; Nevada; Maryland; Rhode Island; Washington DC; California; Michigan; Oklahoma; Massachusetts; New York; Kansas; Colorado; Arizona; Missouri; Ohio; Delaware; and Illinois.
 - c. Reimbursement for Midwives
 - i. All 50 states provide Medicaid reimbursement for Certified Nurse Midwives (CNMs).
 - ii. **Only three U.S. Territories provide** Medicaid reimbursement for Certified Nurse Midwives (Guam, U.S. Virgin Islands, Commonwealth

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of Northern Mariana Islands); American Samoa and Puerto Rico **do not** provide Medicaid reimbursement for CNMs.

- iii. As of September 15, 2025, **only** 18 states provide Medicaid reimbursement for Certified Professional Midwives (CPMs) and Certified Midwives (CMs).
- iv. As of September 15, 2025 only 20 states provide some sort of Medicaid reimbursement to Certified Professional Midwives; and only 3 of the 20 provide payment at parity with Certified Nurse Midwives (National Association of Certified Professional Midwives, n.d.).
- v. As of September 15, 2025 only 13 states provide some sort of Medicaid reimbursement for Certified Midwives (National Academy for State Health Policy, 2023).

d. Lactation Services

- i. Lactation services are not specifically mentioned in the Medicaid statute or Federal Medicaid regulations, nor do all States separately reimburse lactation services as pregnancy-related services. There is wide variation in how each State provides coverage for lactation services across timelines (e.g. prenatal, postpartum and infant care), as well as location (in patient vs out-patient) and across services (e.g. breast pumps, lactation classes; and direct service) (Department of Health and Human Services, 2012).

e. Culturally Rooted Perinatal Support

- i. Culturally rooted perinatal care is a holistic, person-centered approach that integrates the person's cultural background, beliefs, and values into their pregnancy, childbirth and postpartum care, with goals to build trust, improve communication and address historical trauma in order to reduce health disparities for historically marginalized communities (Egger et al., 2024). Culturally rooted perinatal care may include: access to perinatal care services desired by the patient; group perinatal care; comprehensive perinatal services (e.g. enhanced services that includes health education, nutrition, psychosocial support in a culturally attuned manner); home visiting; whole person care (e.g. addressing social needs and mental health); and access to traditional cultural practices.

4. Invest in maternal safety and quality such as: the Alliance for Innovation on Maternal Health (AIM bundles), ObRED (Obstetric Readiness in the Emergency Department) and for maternity care deserts which would include rural maternity access stabilization and telehealth support .

5. Enact comprehensive interpersonal violence (IPV) and Missing Murdered Indigenous Women, Girls and Persons (MMIWGP) maternal-safety provisions which would include: (1) mandatory pregnancy and postpartum fields in missing-persons system; (2) seamless data sharing with MMRCs; (3) domestic violence lethality assessments; (4) mandate routine IPV screening in pregnancy and postpartum time period; and (5) fund victim services and safe housing.

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6. Require that all federally and state funded prisons and jails universally screen for substance use disorders, offer medication assisted treatment for opioid treatment, and offer universal training for correctional employees on: a) trauma informed care; b) substance use disorder; c) medication assisted treatment for opioid use disorder; and d) stigma reduction (Skogset et al., 2025; United States Government Accountability Office, 2024; and National Association of Counties, 2023).
7. Ban shackling and solitary confinement in pregnancy and postpartum in all carceral settings; require evidence-based perinatal standards of care and continuity of Medicaid coverage pre- and post-release (ACOG, 2021; United States Government Accountability Office, 2024).

LEGISLATIVE ROADMAP

Preventing maternal mortality among AI/AN and NH people requires coordinated action at the federal, state, and Tribal levels. The following roadmap highlights upstream, midstream and downstream legislative levers that, if enacted, would directly reduce preventable deaths and advance equity.

Federal (Congress/HHS/DOJ/CMS)

- **Data equity & sovereignty:** Codify adoption of OMB's 2024 SPD-15 standards across federally funded health datasets; require detailed AI/AN and NH reporting, allow Tribal affiliation fields, and fund TECs to co-govern Indigenous data, with explicit recognition of Tribal data sovereignty. Pair this with sustained CDC-IHS data linkages to correct AI/AN misclassification in the National Vital Statistics System (NVSS) and mortality surveillance. Evidence from Hawai'i shows that failing to disaggregate Pacific Islander subgroups masks critical disparities, for example, elevated gestational diabetes among Native Hawaiian women, higher obesity among Samoan women, and late/no prenatal care among Micronesian women (Chang et al., 2015).
- **MMRC infrastructure.** Reauthorize and fully fund Maternal Mortality Review (MMR) activities with required Tribal representation, MMRIA adoption, and formalized TEC partnerships for AI/AN and NH data. Tie grants to preventability review capacity and timely implementation reporting.
- **Coverage & benefits.** Make 12-month Medicaid and the Children's Health Insurance Program (CHIP) postpartum coverage permanent nationwide including across U.S. territories; create a federal floor for doula/midwifery reimbursement and perinatal mental health/substance use benefits; include parity at IHS/638 facilities and urban Indian organizations.
- **Quality & access.** Fund AIM patient-safety bundles, ObRED training for maternity care deserts, and rural stabilization (emergency obstetric readiness, telehealth, transport). Require states to report rural access metrics disaggregated for AI/AN and NH.

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- **Violence prevention.** Fully implement Savanna’s Act and the Not Invisible Act Commission recommendations (“Not One More”). Specifically: (1) require entry into NamUs (National and Missing Unidentified Persons System); (2) improve cross-jurisdiction data (Tribal–state–federal); (3) integrate both the National Violent Death Reporting System (NVDRS) and MMRC system for cross referenced variables such as pregnancy, postpartum and IPV; and (4) fund culturally specific victim services.
- **Carceral health.** Incentivize states/counties to adopt American College of Obstetricians and Gynecologists (ACOG) standards in carceral settings; condition grants on anti-shackling, prenatal nutrition standards, medication-assisted treatment access, breastfeeding accommodation, and continuity of Medicaid pre-release/post-release.

State & Tribal Governments

The following recommendations are meant to align state and tribal governments working synergistically on joint advocacy and alignment to improve maternal mortality.

- **Adopt OMB 2024 standard** statewide; add Tribal affiliation and NH subgroup options on vital records and perinatal data systems; execute data-sharing MOUs with Tribes/TECs (with governance and consent clauses).
- **Strengthen MMRCs.** Add designated Tribal seats; fund family interview components; improve MMRIA data quality on these topics: pregnancy status, IPV, substance use disorder (SUD), mental health; and publish disaggregated AI/AN and NH results annually.
- **Finish the coverage map.** Enact 12-month postpartum coverage (if not already), doula reimbursement, and continuity for Tribal and rural providers; align with CMS’s Transforming Maternal Health (TMaH) model. Only one state (Wisconsin) has not expanded postpartum coverage to 12 months; and only one U.S. territory (U.S. Virgin Islands) has expanded postpartum coverage to 12 months (KFF, 2025). As of September 15, 2025 only 21 states and the District of Columbia have implemented Medicaid coverage for doula services through approved State Plan Amendments with CMS. These states include: Oregon; Minnesota; Florida; New Jersey; Virginia; Nevada; Maryland; Rhode Island; Washington DC; California; Michigan; Oklahoma; Massachusetts; New York; Kansas; Colorado; Arizona; Missouri; Ohio; Delaware; and Illinois.
- **Rural access.** Stabilize rural units via targeted payments, transport protocols, and telehealth; ensure emergency departments meet obstetric readiness where units have closed.
- **IPV/MMIWGP.** Require pregnancy/postpartum flags in missing-person forms, integrate MMRC and MMIW task forces, and fund culturally grounded prevention.

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- **Carceral protections.** Pass comprehensive laws banning shackling and solitary confinement in pregnancy and postpartum. Require standardized reporting of pregnancy outcomes in custody. Fund culturally based reentry supports to ensure continuity of care postpartum.

DETAILED BACKGROUND & POLICY RECOMMENDATIONS

The stated goal for what to do with the Indigenous people "discovered" inside the borders of what is now the US since the early 1800s, under the auspices of the new US government was to "get rid of the Indian problem" (Deloria, 1988). This was planned through either outright killing, forced removal, termination of rights and unconsented assimilation. These actions were formalized into Federal Indian Policy Periods. This strategic, persistent and targeted campaign has resulted in severe health issues manifested in social, structural, political (Dawes, 2020) and Indigenous Determinants of Health (Redvers et al, 2023). This then includes maternal health outcomes.

Historical Trauma & Ongoing Repercussions

Indigenous Peoples have experienced pervasive and cataclysmic collective, intergenerational massive group trauma and compounding discrimination, racism, and oppression.

-Yellow Horse Braveheart, & Chase, 2016

Historical Trauma

Historical Trauma, defined as being trauma that is multigenerational and cumulative over time; distinguishing it from Post Traumatic Stress Disorder (PTSD) which is trauma experienced as an individual in their lifetime. Historical Trauma extends beyond the life span (Duran et al, 1998). PTSD is an anxiety disorder that develops in relation to an event which creates psychological trauma in response to actual or threatened death, serious injury, or sexual violation. The exposure must involve directly experiencing the event, witnessing the event in person, learning of an actual or threatened death of a close family member or friend, or repeated first-hand, extreme exposure to the details of the event (APA, 2013). Importantly, many AI/AN and NH women have a collision of Historical Trauma and PTSD.

Both the AI/AN and NH people have experienced trauma which has impacted not only individual level health outcomes, but family and community wide health and wellbeing. Prior to 1492 Indigenous peoples of the Americas had complex civilizations, extensive trade and political relationships, and robust health and cultural beliefs and practices. Following First Contact with Europeans, Indigenous peoples of the Americas lives changed first by devastation from western disease such as smallpox, measles and pertussis and later by warfare, enslavement, forced removal from traditional lands, intergenerational forced boarding school attendance, and displacement of traditional forms of healing and religious practices.

Treaties between Tribes and European rulers outlined nation-to-nation relationships and were continued following the American Revolution as the newly formed United States came into being following British colonial rule. These special trust relationships, treaties, laws and

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policies shaped and defined the government-to-government relationship the US had with Tribal nations and was later codified in the US Constitution.

However, the last treaties between the US and Indian tribes were in 1868. The Fort Laramie Treaty of 1868 and the Navajo Treaty of 1868 were both signed in 1868. The practice of signing treaties with tribes was ended by Congress in 1871. This also ended the policy period-The Treaty Making Era (1778-1871) (Dept of Indian Affairs, 2025). Several overlapping and subsequent US Federal Indian Policy Periods to the end of treaty-making moved forward with detrimental effects on the Indigenous population. The US Dept of Indian Affairs notes these policies as:

The Removal Era (1830-1850)
The Reservation System (1850-1891)
The Allotment and Assimilation Era (1887-1934)
The Reorganization Policy (1934-1953)
The Termination Era (1953-1968)
The Self-Determination Era (1968 to 1994)
Self-Governance (1994 to present)

During the late 19th century, in exchange for ancestral lands and resources, the federal government entered into treaties and made promises to promote Tribal self-governance, provide medical services, education and protect Tribal lands and resources with those Tribes signing treaties with the US federal government. US federal policy with Tribal nations changed over time, moving from extermination and removal to assimilation, to our current era of self-governance. Many tribes were coerced into surrendering their children to attend federally funded boarding schools in an attempt to assimilate Tribal nations. Within these boarding schools, children were prevented from practicing their cultural practices, beliefs and speaking their native languages.

A well-known report on federally run boarding schools undertaken by Secretary Deb Haaland found evidence that the boarding school was intentionally weaponized as a tool to promote the breakdown of Tribal families and communities, as these children often experienced physical, psychological, sexual and emotional violence (United States Secretary of the Interior, 2022).

The Federal Indian boarding school system deployed systematic militarized and identity-alteration methodologies to attempt to assimilate American Indian, Alaska Native, and Native Hawaiian children through education, including but not limited to the following: (1) renaming Indian children from Indian to English names; (2) cutting hair of Indian children; (3) discouraging or preventing the use of American Indian, Alaska Native, and Native Hawaiian languages, religions, and cultural practices; and (4) organizing Indian and Native Hawaiian children into units to perform military drills.

[United States Secretary of the Interior, 2022,
pg. 56]

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As boarding schools fell out of favor as a way to assimilate native children, modern day assimilation and cultural disruption continued when children were placed into foster care and/or adoption out of their community (Udall, M., 2005; US Department of the Interior Indian Affairs, n.d.). In the 1950s the federal government enacted the relocation and termination policies. Federally sponsored propaganda enticing AI/AN families to relocate to urban centers like Chicago, Los Angeles, New York, and San Francisco often left families stranded in unfamiliar cities and communities without the promised resources (e.g. housing and jobs), leading to a bolus of urban dwelling AI/AN people (Dunbar-Ortiz, 2019). Some tribes were terminated and no longer federally recognized, which erased some Tribal nations' claims to resources secured through treaties. AI/AN women were especially targeted for their reproductive capabilities at federally funded Indian Health Service clinics and hospitals. A federally sponsored sterilization campaign targeted women from non-white racial backgrounds and those who were deemed to be mentally unfit and/or impoverished, and a conservative estimate of 25 % of the AI/AN childbearing population was sterilized during this time (Cackler et al., 2016; General Accounting Office, 1976; Lawrence, 2000).

Federal policies targeted AI/AN populations often left Tribal nations in geographic isolation affecting access to high quality health care resources. Indian Health Service, the agency responsible for providing service is both a health care delivery service but also payor agency and is the “last resort payor”, meaning that if a pregnant Native woman has Medicaid and is also eligible to use Indian Health Service, Medicaid resources and funds will be used first, and IHS pays lastly. It is well known that IHS has never been fully funded both for service delivery and in resources such as health care facilities, provider staffing and tools needed for healthcare evaluation. Case in point, a 2011 IHS facilities report demonstrated that IHS facilities were an average age of 31 years, with 14 of the 35 IHS hospitals were older than 40 years of age, with a long wait list for [remodeling], we are now 14 years later with an even older IHS infrastructure (United States Government Accountability Office, 2016). Additionally, IHS funding relies upon annual congressional appropriation, meaning that when timely decisions are not made, thousands of IHS patients do not receive timely health care.

Turning to the Urban AI/AN population, if we define “urban” to mean a town’s population of 2,500 people, as the US Census Bureau defines “urban,” then roughly 75% of the AI/AN population resides in an urban area. However, many of these “urban” areas are still quite rural and it is more accurate to state that 54% of AI/AN people live in rural or small-town locations and 68% live on or nearby Tribal homelands (Dewes & Marks, 2017).

Hawaii and surrounding islands are believed to have been settled by Polynesian voyagers, later establishing Hawaiian rule. Native Hawaiians have struggled for sovereignty since the arrival of Captain James Cook in 1778. In the aftermath of his visit, the Hawaiian people suffered through devastating western diseases such as smallpox, whooping cough and measles which ended in a dramatic drop in the Hawaiian population. Christian missionaries arrived in 1820 and eventually contributed to overthrowing the traditional kapu system, a governing structure of societal rules and religious beliefs. In 1810 King Kamehameha unified the islands into a single kingdom with formal treaties. In 1893 American businessmen, along with US military force, staged an illegal coup overthrowing Hawaiian Queen Lili’uokalani.

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Following the coordinated effort to depose Hawaiian sovereignty, the Hawaiian language was banned from being taught and Hawaiian culture practices were discouraged. Hawaii was annexed in 1898 by the US as a territory and later became the 50th state. Today, Hawaiian language and culture are celebrated.

ONGOING INTERGENERATIONAL PERINATAL EFFECTS

The intersection of historical trauma and the perinatal experience profoundly impacts AI/AN perinatal health (Heck et al., 2021; Maxwell et al., 2022; Owais et al., 2019; Palacios & Portillo, 2008). Historical trauma is linked to mental and social health concerns such as substance abuse, intimate partner violence (IPV), and somatic expressions of postpartum depression (PPD) among AI/AN women (Maxwell et al., 2022). Mothers expressed that their PPD experience was deepened by recalling historical trauma, viewing their AI/AN motherhood as an act of resistance, and feeling that the denial of their cultural mothering practices was a reminder of what happened to their ancestors. This historical context, including forced removal, cultural erasure, and disenfranchisement, is interwoven into the unique challenges of becoming a mother for AI/AN women and contributes to PPD (Maxwell et al., 2022). This is a significant social determinant of health for AI/AN people, resulting from cumulative exposure to traumatic events from like wars, massacres, boarding schools, and forced removal, an. It manifests in subsequent generations as depression, substance use, diabetes, and other adversities that damage social determinants of health (Heck et al., 2021; Palacios & Portillo, 2008).

Maxwell et al, (2022) posit that historical trauma and ongoing disenfranchisement among AI/AN women continues to threaten the health and well-being of AI/AN women, especially around the perinatal period resulting in: lack of access to traditional cultural birth and perinatal practices; inadequate perinatal care resulting from provider bias favoring intervention among pregnant AI/AN, continued lack of mistrust with medical system and providers; and high rates of postpartum depression and associated perinatal mental health concerns. Maxwell et al, (2022) points out that suicide is identified as the leading cause of maternal death one year post-childbirth, and suicide rates among AI/AN women are 3 to 5 times higher than for any other racial and ethnic group of women in the US.

From 2012 to 2015, the incidence of severe maternal morbidity and mortality (SMM) was twice as high among Indigenous women compared with White women (Kozhimannil et al., 2020). The pregnancy-related mortality ratio (PRMR) for non-Hispanic AI/AN women was 26.5 per 100,000 live births between 2007 and 2016, and worsened to 32.0 in more recent data, consistently higher across all age groups, particularly for those aged 35 to 40 years (Sharma et al., 2023). Even AI/AN women with some college education have a higher PRMR than non-Black women with less than a high school diploma.

Medical Conditions Accelerating Maternal Mortality & Morbidity

Major drivers for severe maternal morbidity and mortality include: hemorrhage, hypertensive disorders/cardiovascular disease, infection, mental health, substance use disorder, and cardiometabolic risk which includes gestational diabetes.

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1. Mental Health Challenges- Particularly Postpartum Depression (PPD) and Substance Use Disorder (SUD):

- **Increased Rates:** AI/AN women experience significantly higher rates of PPD, ranging from 14% to 29.7%, compared to the overall U.S. rate of 11% (Heck, 2020), but also experience risk factors for PPD such as: lower educational attainment, lower income, unintended pregnancy, lack of social support, unemployment, IPV experience and a newborn not going home with the mother.
- **Compounding Risk:** Traumatic stressful life events, such as IPV and adverse childhood experiences (ACEs), are strongly associated with an increased risk of PPD (Heck, 2020).
- **Lack of social support:** Lack of social support increases risk for postpartum depression, and young AI/AN women are at a higher risk for poor perinatal mental health (Heck, 2021). Indigenous women, especially young mothers, are at an increased risk of psychopathology during the perinatal period (Owais et al., 2019).
- **Health Care Utilization:** Cultural factors, including mental health stigma, language barriers, and a lack of culturally competent providers, can hinder the utilization of mental health services and the accurate reporting of depression symptoms among diverse populations, potentially leading to underestimation (Go et al., 2024).
- **Suicide:** Suicide among AI/AN people is higher than all other racial/ethnic groups. Mental illness, including depression, is a leading cause of U.S. maternal mortality (Heck, 2021).
- **Substance Use:** Adverse mental health conditions and substance use disorders significantly impact maternal cardio-vascular health. Indigenous women in rural counties face a higher risk for substance use disorders (Kozhimannil et al., 2020). Toxic stress from poverty, inequality, and substance abuse leads to poor health outcomes across the life course (Sharma et al., 2023). While specific data on AI/AN pregnancy-associated maternal mortality from substance use is lacking, AI/AN women have markedly elevated risks of smoking, alcohol, and illicit drug use during pregnancy compared to White women (Heck, 2021).
- **Comorbidities:** Mental health conditions and substance use increase the likelihood of maternal morbidity and mortality (Heck, 2021).
- **Gaps in Literature:** Significant gaps exist in the PPD literature for AI/AN women, with inconsistent screening instruments and a lack of reported cultural influences, risk, or protective factors specific to this population (Heck, 2021).

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- 2. Gestation Diabetes Mellitus (GDM) and Related Metabolic Risks:** AI/AN mothers have significantly elevated odds of GDM compared to White individuals (adjusted odds ratio = 1.48) (Go et al., 2024). Elevated Body Mass Index (BMI), particularly obesity, is a critical driver of GDM risk across all groups, and disproportionately affects Native mothers. Structural inequities, such as limited access to preventive care and socioeconomic disadvantages, contribute to the higher burden of GDM among Native populations. High gestational diabetes risk across several NH groups necessitates disaggregated surveillance and targeted prevention. Elevated GDM rates and obesity are found in Native Hawaiian and Samoan women, which underscores the need for sub-group specific data and interventions (Chang et al., 2015).
- 3. Pre-Existing Health Conditions and Cardiovascular Disease (CVD):** CVD is the leading cause of pregnancy-related death in the U.S., and AI/AN individuals are 50% more likely to be diagnosed with premature CVD than their White counterparts. CVD is the second leading cause of death for AI/AN women, after cancer. Over 60% of AI/AN women entering pregnancy have suboptimal cardiovascular health (CVH), a figure that worsened between 2011 and 2019. Suboptimal CVH during pregnancy is linked to adverse maternal and fetal outcomes and future CVD development (Heck et al., 2021; Sharma et al., 2023).
- 4. Hypertension:** Common in AI/AN women, especially with Type 2 Diabetes (T2D) and obesity, and a strong predictor of CVD. Hypertensive disorders of pregnancy contribute to maternal death, and underlying obesity increases the risk of preeclampsia.
 - **Diabetes:** T2D is the predominant CVD risk factor in AI/AN women, with prevalence as high as 72% in some communities, and is three times higher than in White women, starting in childhood. AI/AN women are 1.4 times more likely to be diagnosed with gestational diabetes than NHW women.
 - **Obesity:** Affects almost half of AI/AN women, contributing to increased risk for cardiovascular disease and related conditions like hypertension, type 2 diabetes, sleep apnea, and cardiomyopathies.
 - **Cardiomyopathy:** Accounted for 14.5% of AI/AN pregnancy-related maternal deaths, a higher proportion than in any other racial/ethnic group. Black and AI/AN women have greater odds of developing peripartum cardiomyopathy compared with White women.
 - **Infections:** AI/AN women also have a significantly higher likelihood of developing infections, postpartum hemorrhage, and preeclampsia compared to NHW women.
 - **Other Complications:** Postpartum hemorrhage and uterine atony are significantly higher in AI/AN women than White women. Anesthesia

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complications are also more common in Native American women (Heck et al., 2021).

Timing and causes of AI/AN pregnancy related deaths underscore both the timing and preventability of pregnancy-related deaths among AI/AN women. In 2021, 13.5% of deaths occurred during pregnancy, 18.9% on the day of delivery or within the first week postpartum, and 67.5% occurred between 7 days and 1 year postpartum, making the extended postpartum period the most vulnerable time (Center for Disease Control, 2025a). Mental health conditions were the leading cause of death, followed by infection (Center for Disease Control, 2025b). Strikingly, 100% of AI/AN pregnancy-related deaths were deemed preventable by Maternal Mortality Review Committees. More than half (51.1%) of the prevention recommendations targeted the system level, defined as the interacting entities that support services before, during, or after pregnancy, ranging from healthcare systems and payors to public services and programs (Center for Disease Control, 2025c). These findings highlight both the urgency of postpartum support and the structural reforms needed to close persistent equity gaps.

Past unethical medical research and medical practices involving Indigenous groups have fostered mistrust in non-Indigenous researchers and health care systems, potentially leading to underreporting of health problems and reluctance to participate in care or research studies, but also a general mistrust in government and health care systems (Owais et al., 2019; Sharma et al., 2023). Identifying rates of maternal mortality and severe maternal mortality have not only been complicated by lack of trust in the medical system, wherein people may avoid the health care system, but also through consistent means of tracking AI/AN data and a high rate of misclassifying this race in the medical system, which impacts state and national reports.

Ongoing Effects of Historical Trauma

Ongoing effects from historical on the AI/AN and NH populations are still felt today and manifest in differential health outcomes reflective of sociological health risks among communities, families and individuals such as: access to health care, education, economic growth, housing, electricity, clean water, broadband internet, paved highways, food, and ongoing daily stress and associated behavioral health risks employed to relieve accumulating pressures. However, this is not the end or full story, for both the AI/AN and NH population have cultural practices and community strengths that contribute to individual, family and community-wide resilience.

1. Systemic Barriers and Lack of Access to Culturally Tailored Care

- **Rural Residence:** The highest incidence of SMM and mortality is among Indigenous women residing in rural counties, with 2.3% experiencing SMM during childbirth hospitalizations (Kozhimannil et al., 2020). Approximately 40% of AI/AN individuals live in rural, reservation, or frontier communities with limited access to healthcare, screening, and diagnostic tools (Sharma et al., 2023).

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- **Poverty and Economic Disadvantage:** Two-thirds of Indigenous women in rural counties live in areas with median incomes in the bottom national income quartile, and three-quarters of their childbirth hospitalizations are paid for by Medicaid (Kozhimannil et al., 2020). AI/AN people experience long-standing poverty at much higher rates and have the lowest educational attainment in the nation (Heck et al., 2021; Sharma et al., 2023). Poor perinatal outcomes are associated with poverty, lack of education, and neighborhood-level factors (Heck et al., 2021).
- **Lack of Access to Care:** Only 60.4% of AI/AN women in Urban Indian Health Program service areas sought prenatal care in the first trimester, compared to 81.6% of non-Hispanic White women (Sharma et al., 2023).
- **Lack of Culturally Safe Care and/or Lack of Cultural Humility:** American Indian women frequently report feeling stigmatized, stereotyped, and dismissed by the conventional medical system, which can deter them from seeking essential maternal health services (US Commission on Civil Rights, 2021). Hospitals often do not accommodate traditional birthing ceremonies, leading to cultural and spiritual harm for families. Healthcare systems framed by Western ideals can infringe upon indigenous women's cultural practices, creating "culturally-biased systems" that fail to understand or support traditional birthing practices.
- **Lack of Choice in Birthing Options:** There is a significant lack of accessible birthing centers for those living in vastly rural or frontier states, such as AI/AN women living on reservations within South Dakota, North Dakota, Montana, Idaho, Wyoming, New Mexico, Arizona and Alaska, posing transportation barriers for many AI/AN women. Similarly, Native Hawaiian women are often transferred to a larger hospital on Oahu to deliver. Postpartum mental health services are also inadequate, with existing programs often narrowly focused on suicide prevention rather than comprehensive maternal mental health support (US Commission on Civil Rights, 2021).
- **Indian Health Service (IHS) Limitations:** The IHS, established to provide health care to federally recognized tribes, suffers from resource deficiency and underfunding, leading to inadequate numbers of providers and dwindling hospitals (Heck et al., 2021). Not all AI/AN tribes are federally recognized, and urban AI/AN residents often lack access to IHS services.

2. Bias and Mistrust in Health Care

- **Historical Trauma:** The structured discrimination generated long-standing barriers to health and wellbeing for AI/AN people (Palacios & Portillo, 2008). Institutional and structural bias are recognized as having cascading effects on health outcomes, contributing to poor treatment and health disparities (Heck et al., 2021).
- **Unconscious Bias:** Provider unconscious bias contributes to maternal mental health challenges and can lead to the denial of reproductive rights, such as not being able to birth in desired ways or receive desired perinatal testing (Maxwell et al., 2022).

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- **Mistrust:** Historical trauma and past unethical medical research have fostered mistrust in non-Indigenous researchers and health care systems, impacting willingness to disclose health issues and participate in studies (Heck et al., 2021).
- **"Weathering Hypothesis":** Cumulative stress from bias and socioeconomic disadvantage produces a "weathering effect" on health, degrading health across the lifespan and making it more difficult for AI/AN women to enter pregnancy in optimal health (Heck et al., 2021; Palacios & Portillo, 2008).

POLICIES TO ADDRESS HISTORICAL TRAUMA & ONGOING HEALTH RISKS

To adequately address the ongoing health risks affecting AI/AN and NH people, families and communities, five major areas for federal policy to focus on to make improvements: providing a culturally responsive health care and workforce; addressing historical trauma and ongoing health risks; improving data collection aligned with Tribal sovereignty; enhance prevention and improve care models; and invest in resources with secured funding.

1. Culturally Responsive Health Care and Workforce Development:

- **Increase Culturally Responsive Providers:** Increase the number of maternal mental health specialists and providers who are culturally responsive. This includes appropriating funds for culturally derived care and appropriate responsive practices for AI/AN women (Maxwell et al., 2022).
- **Educate Health Care Professionals:** Mental health and health care education should increase focus on maternal mental health within human behavior coursework and practice classes (Maxwell et al., 2022).
- **Recruit AI/AN Professionals:** Schools educating professionals should prioritize recruiting AI/AN students and provide training and internships within their home communities to increase access to culturally aware maternal mental health providers (Maxwell et al., 2022).
- **Integrate Traditional Healing:** Perinatal providers (social workers, doulas, midwives, OBGYNs, nurses, pediatricians) should integrate culturally respondent care. This includes supporting autonomy over birth choices and respecting cultural and spiritual practices, such as placenta burying, which can act as buffers against maternal mental health disorder (Maxwell et al., 2022).
- **Increased Use of Nurse Midwives and Certified Midwives:** Promoting the widespread use of nurse midwives and certified midwives can significantly improve the quality of care and perinatal outcomes (Heck et al., 2021), while also providing a workforce that can be trained faster than obstetricians and gynecologists and be placed in healthcare maternity deserts.

2. Resource Allocation and Infrastructure:

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- **Strategic Investment:** Investing in participatory research approaches and community-driven programs to improve early access to quality health care warrants further attention in diverse rural and urban tribal communities to optimize AI/AN maternal health. This includes addressing the underfunding of IHS facilities and ensuring access for all AI/AN individuals, including those in urban areas (Heck et al., 2021).

In order to understand the current context for elevated rates of maternal mortality and morbidity among both groups, as well as key factors related to health outcomes such as the rate of violence and victimization, homicide, incarceration, and mental health concerns that often lead to substance use disorder, it is essential to understand the associated shared historical trauma.

Violence in Maternal Health

Intimate partner violence (IPV) has profound effects on: 1) health seeking behavior (women suffering from IPV are less likely to pursue timely prenatal/postnatal care); 2) mental health; substance use; 3) suicidal ideation; and 4) birth outcomes such as birth weight (Steele-Baser et al., 2024). Both AI/AN (Giacci et al., 2022) and NH (Vergara et al., 2018) pregnant women and postpartum mothers experience a disproportionate amount of IPV when compared to NHW women. A 2018 report, found that 8.8% of Native Hawaiian mothers who had recently given birth (between 2012-2015) had experienced IPV, compared to 3.6% among NHW women (Hawaii State Department of Health, 2018).

Pervasive Violence and Victimization:

AI/AN people, particularly women and girls, are disproportionately affected by violence. A staggering 84% of AI/AN women and 82% of AI/AN men report experiencing violent victimization in their lifetime, significantly higher than non-Hispanic White individuals, while AI/AN children are also more likely to experience abuse and trauma (National Congress of American Indians, 2021). AI/AN women face the highest lifetime prevalence rates for rape (34.1%), and also experience significantly higher lifetime rates of intimate partner violence (38.2% compared to 29.3% for White women) (Rosay, 2016). The 2010 National Intimate Partner and Sexual Violence Survey (NISVS) found that 84% of AI/AN women experienced violence in their lifetime, and 40% in the past year. Specifically, 56% experienced sexual violence and 56% experienced physical violence by an intimate partner in their lifetime (Rosay, 2016). Lifetime and 12-month prevalence rates of IPV are consistently higher for AI/AN women (47.5%) than White women (37.3%), representing the highest reported prevalence among all racial/ethnic groups (Heck, 2021). IPV is often associated with maternal deaths attributable to homicide and suicide (Heck, 2021). Despite IPV and sexual violence rates high among AI/AN women, there are very few prevention programs (Rollman et al., 2024).

Homicide was the leading cause of death for AI/AN people across all ages and sexes in 2020, and the 5th leading cause for those aged 20-44 years (CDC, 2020). Firearms were the most common cause of death in homicides for AI/AN victims (59%) (*Missing and Murdered Indigenous People (MMIP): Overview of Recent Research, Legislation, and Selected Issues for Congress*, 2023). Homicide remains a leading cause of pregnancy-associated injury deaths in

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the United States, and disparate numbers of missing and murdered Indigenous women suggest it may be responsible for more AI/AN pregnancy-associated deaths than recognized (Heck, 2021). While not explicitly stated as a *maternal* mortality cause in this context, homicide is a known leading cause of pregnancy-related death in other populations, making this a critical factor for AI/AN people. Likewise, AI/AN women and men are significantly more likely to be victimized by perpetrators from other racial groups. For instance, 96% of AI/AN victims of sexual violence experienced it at the hands of an interracial perpetrator (*Missing and Murdered Indigenous People (MMIP): Overview of Recent Research, Legislation, and Selected Issues for Congress, 2023*). Victimization leads to significant safety concerns (67% of AI/AN women), physical injuries (41%), and missed work or school (41%). Crucially, 49% of AI/AN women reported needing services (most commonly medical care), but 38% were unable to access them, and AI/AN women were significantly less likely to receive services compared to non-Hispanic White women (*Missing and Murdered Indigenous People (MMIP): Overview of Recent Research, Legislation, and Selected Issues for Congress, 2023*).

Violence in Maternal Health has dire consequences for the mother, infant and family unit in general, but when coupled with unmet service needs, barriers to seeking help, gaps in services for Urban AI/AN mothers, and overall lack of community engagement found within Federal initiatives, this problem can easily become overwhelming.

Unmet Service Needs: A significant proportion of AI/AN women (49%) and men (20%) reported needing services due to victimization, with medical care being the most commonly needed. However, 38% of AI/AN women and 17% of AI/AN men were unable to access the services they required, and AI/AN women were significantly less likely to receive services compared to non-Hispanic White women (*Missing and Murdered Indigenous People (MMIP): Overview of Recent Research, Legislation, and Selected Issues for Congress, 2023*).

Lasting Health Impacts: Exposure to violence has profound and lasting effects on physical and mental health, including depression, anxiety, substance use, chronic and infectious diseases, and diminished life opportunities such as educational attainment and employment (Rollman et al., 2024).

Barriers to Seeking Help: Victims of domestic violence face significant barriers, including geographic isolation, lack of law enforcement, fear of being identified, fear of retaliation from abusive partners or community members, and a lack of trust between victims and local law enforcement (Parker et al., 2024).

Gaps in Services for Urban Native Americans: The majority of Native Americans reside in urban areas, yet federal policies and resources aimed at reducing violence often focus on tribal lands, leaving a significant portion of the AI/AN population underserved and without access to specific programs (*Missing and Murdered Indigenous People (MMIP): Overview of Recent Research, Legislation, and Selected Issues for Congress, 2023*).

Lack of Community Engagement in Federal Initiatives: Federal efforts like Operation Lady Justice have been criticized for insufficient participation from and communication with affected families and grassroots organizations, as well as barriers to access (e.g., lack of

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internet in tribal communities for virtual meetings) (*Missing and Murdered Indigenous People (MMIP): Overview of Recent Research, Legislation, and Selected Issues for Congress*, 2023). This highlights a systemic failure to genuinely engage and empower AI/AN communities in solutions.

Finally, the **funding landscape** to meet service needs such as screening and referrals for treatment when violence and/or victimization are identified within the Indian Health Service (IHS) is nearly non-existent. The Indian Health Service is drastically underfunded, wherein per capita health care expenditure for IHS is \$3,332, which is approximately one-third of the national per capita health care expenditure (\$9,207) and less than half of what is spent on inmates in the Federal Bureau of Prisons (\$8,602) (Parker et al., 2024). This intentional underfunding contributes to persistent health disparities, including mental and behavioral health conditions (Parker et al., 2024).

POLICIES TO ADDRESS & PREVENT VIOLENCE IN MATERNAL HEALTH

The policies to address and prevent violence in maternal health among AI/AN communities will need to address both the cause (trauma) and effect (violence) through comprehensive and culturally responsive approaches, while simultaneously improving data collection methods and promoting sovereignty among Tribal nations.

1. Addressing Violence and Trauma through Comprehensive and Culturally Responsive Approaches:

- **Improve IPV Screening:** A universal IPV screening protocol is needed, which would include a standardized IPV screening tool, universal screening times (e.g. # prenatal and postpartum screenings); instances wherein screening would take place (e.g. prenatal clinic visit, postpartum visit, well child-check up etc.); and a cohesive system for referral and resources (Wong et al., 2024).
- **Inadequate Screening for IPV:** Criticism for culturally inadequate methods of screening, as well as provider/staff under screening for IPV masks the true rate of IPV. Additional factors contributing to inadequate IPV screening among pregnant and postpartum women include: a) absent universal IPV screening protocol; b) limitation to healthcare worker's knowledge and training on IPV; and c) varied patient understanding and acknowledgement of IPV experiences (Wong et al., 2024).
- **Culturally Inappropriate Evaluation:** Standard evaluation procedures may fail to capture short-term effects that tribes prioritize, such as community involvement, adoption of cultural customs, improved understanding of culture and history, healthier policies, and "evidence-based practices" built on traditional knowledge (Rollman et al., 2024).
- **Trauma-Informed Systems:** Policies should mandate the implementation of trauma-informed approaches across all health care, social services, and justice systems that interact with AI/AN people. This includes guidelines for communication with victims' families and cooperative, trauma-informed

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approaches between jurisdictions (*Missing and Murdered Indigenous People (MMIP): Overview of Recent Research, Legislation, and Selected Issues for Congress, 2023*).

- **Equitable Access to Services for Urban Natives:** Federal policies and funding for violence prevention and victim services must be expanded to adequately serve AI/AN populations residing in urban areas, not just tribal lands, to address the existing service gaps (*Missing and Murdered Indigenous People (MMIP): Overview of Recent Research, Legislation, and Selected Issues for Congress, 2023*).
- **Empowering Community-Led Solutions:** Policies should prioritize and fund grassroots, community-led initiatives for violence prevention and support. This requires ensuring genuine participation and communication with affected families and organizations, addressing barriers like internet access for tribal communities, and providing sufficient time for testimony and input (*Missing and Murdered Indigenous People (MMIP): Overview of Recent Research, Legislation, and Selected Issues for Congress, 2023*).

2. Strengthening Data Collection and Tribal Sovereignty in Health:

- **Underreporting and Lack of Evaluation:** There is a need for more work to identify promising violence prevention practices and to conduct evaluations for effectiveness in AI/AN communities. Many programs are not evaluated, or their evaluations suffer from methodological challenges like small study populations or convenience samples (Rollman et al., 2024).
- **Improved Data Collection:** Support legislation and programming to improve data collection on violence and maternal health outcomes for Native Americans, ensuring accuracy and disaggregation by tribal affiliation where appropriate (*Missing and Murdered Indigenous People (MMIP): Overview of Recent Research, Legislation, and Selected Issues for Congress, 2023*).
- **Tribal Involvement in Data and Policy:** Policies should ensure that AI/AN tribes have access to health-related data from their communities and are actively involved in the development and implementation of policies and programs that affect their populations. This includes ensuring their participation in task forces and review committees (*Missing and Murdered Indigenous People (MMIP): Overview of Recent Research, Legislation, and Selected Issues for Congress, 2023*).

Missing Murdered Indigenous People (MMIP) and Maternal Health

The MMIP epidemic is a serious concern, with AI/AN individuals representing a disproportionate percentage of missing persons (3.5% of NamUs missing persons compared to 1.1% of the U.S. population) (*Missing and Murdered Indigenous People (MMIP): Overview of Recent Research, Legislation, and Selected Issues for Congress, 2023*). Violence during pregnancy is strongly associated with preterm birth, low birthweight, stillbirth and missed

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prenatal care and maternal death. MMIP reflects systemic failures in prevention, data, jurisdiction and response; these same gaps harm pregnant and postpartum people and their infants. The Not Invisible Act Commission 2023's report lays out specific federal fixes now ready to implement. This report documents systemic failures across criminal-justice and health data systems and calls for mandatory use of NamUs, interoperable data, survivor-centered services, and collaboration with Tribal authorities. Aligning MMRCs with MMIP task forces will close critical data gaps within the perinatal status among missing or murdered people and inform prevention.

POLICIES TO ADDRESS MMIP AND IMPROVE MATERNAL HEALTH

1. Fully funding and implementing VAWA 2022 Tribal Provisions:

- **Ensure sustainable resources** for tribes exercising Special Criminal Jurisdiction (STCJ) over the full list of covered offenses (domestic/data violence, sexual violence, sex trafficking, child violence, stalking, obstruction of justice, assault on tribal justice personnel) and prioritize technical assistance.
- **Execute the Not Invisible Act Commission Roadmap:** The “Not One More” report (2023) details operational steps: 1) annual MMIP regional outreach reporting; 2) mandatory and sustained funding for MMIP coordinators and system navigators; and 3) measurable implementation of Savanna’s Act guidelines across districts. Congress and DOJ Interior should adopt these acts.
- **Execute Savanna’s Act with Oversight:** DOJ, FBI and partner agencies must finalize and publicly report on protocols, data standards and cross-jurisdictional coordination for MMIP; Congress should require regular annual progress reports.
- **Reduce Firearm Risk:** Build on the Bipartisan Safer Communities Act (closes the boyfriend loophole), with permanent, comprehensive firearm prohibitions for dating/partner abuses and swift removal procedures; expand funding for tribal lethality assessment programs.
- **State MMIP “Turquoise/Feather” Alerts:** Encourage or require states to adopt Indigenous-specific alerts (as is done in CA, WA, NM and CO), with integration into tribal policy and 911 systems.

2. Make Maternal-infant Health Systems Violence Informed:

- **Codify & Finance Universal IPV Screening & Warm Hand-Offs:** Implement the updated United States Preventative Service Taskforce (USPSTF) B-Grade recommendation (screen all women of reproductive age, explicitly during pregnancy/postpartum period), with reimbursements in

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Medicaid/CHIP/IHS/Tribal Health, and add performance incentives for documented referral to culturally safe services.

- **Enforce CMS Hospital Safety Standards in OB Care:** Use CMS’s 2024 Conditions of Participation updates to require OB units to have protocols for IPV risk, firearm safety counseling, safe-discharging planning, and MMIP-aware social work linkage. These recommendations may be tied to hospital survey readiness and quality measures.
- **Expand Tribal Home Visiting (MIECHV) and Perinatal Support:** Protect and grow the 6% Tribal MIECHV set-aside reauthorized in 2022, targeting doula care, safe housing linkages, and IPV services for pregnant and postpartum families.
- **Sustain ERASE MM and Enable Tribal MMRCs:** Reauthorize and fully fund MMRCs via the Preventing Maternal Deaths Reauthorization Act of 2025 and explicitly fund tribally led MMRCs with data sharing that respects tribal sovereignty and integrates homicide/suicide/overdose and MMIP data.

3. Fix Data, Surveillance & Sovereignty

- **Accurate Identification and Linkage Surveillance:** Require and fund race/ethnicity data quality improvements (AI/AN misclassification fixes), link maternal and infant/child data, integrate MMRC (MMRIA) with MMIP case data under tribal data governance agreements. Expand CDC MMRC tools and guidance to include violence/MMIP modules.
- **Tribal Data Sovereignty:** Direct CDC/DOJ/DHHS to use Tribal IRB/MOUs for data access and publication; fund tribal epidemiology centers to lead indigenous evaluation methods for survivor services.

4. Fund the Trust Responsibility

- **Stabilize and Increase IHS & Urban Indian Health Funding:** Maintain advanced appropriates and increase IHS base and Urban Indian Health line items; insulate violence-prevention, behavioral health and maternal programs from federal rescissions or “back-door” cuts, as well as protect from congressional appropriations and government shutdowns.
- **Lock in Victims of Crime Act Tribal Set-Aside:** Make the 5% Tribal set aside from the Crime Victims Fund permanent, with streamlined multi-year awards for tribal victim services including perinatal IPV programs and safe housing

Incarceration During Pregnancy/Postpartum

Native women are disproportionately impacted by incarceration: AI/AN women are incarcerated at a rate of 173 per 100,000 compared to 40 per 100,000 for White women (United States Government Accountability Office, 2024). Incarcerated pregnant women

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commonly report substance use before or during pregnancy, yet carceral settings often fail to provide adequate substance use treatment (Steely Smith, 2023). ACOG recommends comprehensive, trauma-informed pregnancy and postpartum care in carceral settings and opposes shackling and solitary confinement due to risks of hemorrhage, hypertensive crises, preterm labor, and psychological harm. Policies to prohibit restraints, guarantee prenatal nutrition and lactation support, provide medications for opioid use disorder and mental-health care, and ensure Medicaid continuity pre-release/post-release should be pursued.

1. Inadequate Healthcare within the Carceral System:

- **Disproportionate Incarceration:** While not explicitly stated in these documents, AI/AN individuals are disproportionately represented in the carceral system, making the issues faced by incarcerated pregnant people highly relevant to AI/AN maternal health (Fox et al., 2022; Prison Policy Initiative, n.d.).
- **Substandard Care in Custody:** Incarcerated pregnant and postpartum individuals often receive inadequate and undignified care, lacking comprehensive reproductive health services, including contraception, cancer screenings, respectful maternity care, and treatment for mental illness and substance use disorders (ACOG, 2021).
- **Shackling and Barriers to Care:** The practice of shackling during pregnancy, labor, and postpartum periods is a significant concern (ACOG, 2021).
- **Expensive Copays for Health Care:** Copays for health care while in custody create financial barriers to essential services for pregnant women (ACOG, 2021).
- **Lack of Continuity of Care:** There are challenges in ensuring continuity of care for incarcerated individuals after their release, which can lead to gaps in crucial maternal health support (ACOG, 2021).

POLICIES TO REFORM PERINATAL HEALTHCARE WHILE INCARCERATED

Measures to reform perinatal health care while incarcerated include widespread policies that emphasize human practices and recognize healing can take place while incarcerated. These measures include: mandating comprehensive reproductive health care; ban shackling; eliminate health care copays while incarcerated; improve continuity of care; dignify childbirth experiences; and reduce incarceration rates.

Reforming Reproductive Healthcare for Incarcerated Individuals:

- **Mandate Comprehensive Reproductive Health Care:** Recommendations should promote that prisons, jails, and detention facilities provide comprehensive reproductive health, pregnancy, and postpartum care. (ACOG, 2021).

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- **Ban Shackling:** Advocate for and enforce policies and laws that restrict or eliminate shackling during pregnancy, labor, and the postpartum period (ACOG, 2021).
- **Eliminate Health Care Copays:** Policies should eliminate copays for incarcerated individuals to access health care while in custody, removing financial barriers to essential services (ACOG, 2021).
- **Improve Continuity of Care:** Create and participate in continuous Medicaid coverage in systems that improve continuity of care for incarcerated individuals after their release, ensuring a smooth transition to community-based health services (ACOG, 2021).
- **Dignified Birthing Environments:** Foster safe and dignified birthing environments for incarcerated patients, both within facilities and when they are treated at community clinics and hospitals (ACOG, 2021).

Tracking AI/AN & Native Hawaiian Maternal Data & Misclassification

Misclassification (especially outside IHS service areas) obscures true risk and hinders prevention. Misclassification of AI/AN on death certificates lead to underestimation; CDC/NCHS addresses this through IHS linkages and methodological guidance—these linkages materially change mortality rates and trend interpretation (Haozous et al., 2014; Jim et al., 2014). AI/AN people are often labeled under “other” or captured as Hispanic, while NH are often grouped in with Asian & Pacific Islanders (API), which masks true rates of maternal mortality and morbidity.

OMB’s 2024 race/ethnicity standard (combined question; explicit NH category and detailed reporting) sets a new federal floor states should adopt to improve fidelity for AI/AN and NH populations. Native Hawaiian maternal deaths may be undercounted in vital statistics, leading to underestimated mortality ratios and masking true risk. Outside Hawai’i, several states have begun disaggregating NH maternal outcomes. For example, the California Department of Public Health found that NH women had the highest severe maternal morbidity rate among all racial groups in 2021 (California Department of Public Health, 2025). These findings reinforce the need for nationwide adoption of OMB 2024 standards to capture NH outcomes accurately across all states.

The AI/AN population is a highly mixed population, moving from single race categories, and including multiple races as well as Hispanic ethnicity, and up-coding “American Indian/Alaska Native” identity may yield a wider net when looking for data among this population, as was found by the CDC’s review of maternal mortality review committees across 36 states, which nearly doubled the number of AI/AN maternal mortality cases from 9 to 17 (CDC, 2022). Remedies include adopting OMB-2024, implementing IHS linkages, and formalizing Tribal data sovereignty (collection, use, and sharing governed by Tribes/TECs). ACIMM (2022) explicitly recommends adopting AI/AN Data Sovereignty and resourcing Tribal/urban inclusion in HHS systems and studies.

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1. Data Limitations:

- a. **Racial Misclassification:** AI/AN maternal deaths are often classified in an "Other" racial/ethnic category, or misclassified as another race (up to 45% of deaths), leading to underreporting and compromised estimates of mortality (Haozous et al., 2014; Heck et al., 2021). This prevents a clear understanding of true incidence and prevalence and obstructs intervention development.
- b. **Small Sample Sizes:** The absolute number of AI/AN pregnancy-related and pregnancy-associated deaths is small (e.g., 117 in PMSS 2007–2016), leading to cases being discussed together to protect confidentiality, further obscuring specific data (Heck et al., 2021). Many studies suffer from methodological limitations, such as convenience sampling, small sample sizes, and recruitment from tertiary care centers, which limit the representativeness and generalizability of findings for AI/AN communities (Owais et al., 2019).
- c. **Lack of Disaggregated Data:** Aggregated data often masks significant intra-group differences, hindering a nuanced understanding of risk factors and effective interventions for diverse AI/AN populations (Heck et al., 2021). Aggregated data on diverse populations (like Asian and Native Hawaiian/Other Pacific Islander) often masks significant intra-group differences, hindering a nuanced understanding of risk factors and effective interventions (Go et al., 2024). This principle applies equally to the diverse AI/AN population.

State and Tribal sources underscore data gaps and preventability: Washington's American Indian Health Commission (AIHC)-supported MMR effort found AI/AN maternal mortality ratios higher than any group and ~60% of deaths preventable. The Intertribal Council of Arizona's TEC (Tribal Epidemiology Center) report confirms consistently higher severe maternal mortality rates for AI/AN across Arizona, Nevada, and Utah and details data barriers and action items. South Dakota's 2024 American Indian Health Data Book illustrates the feasibility of disaggregated state reporting and points to overlapping infectious-disease burdens and social vulnerability in Tribal counties.

POLICIES TO IMPROVE DATA COLLECTION & METHODS:

To improve AI/AN and NH maternal mortality, better data collection and research methods are needed, just as culturally responsive evaluation is also needed to improve health outcomes.

Improving Data Collection:

- Providing Tribes and NH communities with access to data from their respective communities can empower them to better address the issues facing their populations. Require Tribal consultation or data use and collection.

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- Require all grantees and hospitals to use the OMB-2024 combined race/ethnicity question and to include Tribal affiliation and NH subgroup fields on vital records, PRAMS, MMRIA, and claims.
- Build standing MMRC–TEC–IHS linkages (with Tribal data governance) and fund data quality audits; ACIMM (2022) urges using MMRIA/NFR-CRS and centering AI/AN leadership in mortality reviews.
- Report annually on AI/AN (on/off reservation) and NH outcomes, with urban Indian/NH breakouts where sample sizes allow.

CONCLUSION

Preventing maternal mortality and severe maternal morbidity among American Indian, Alaska Native, and Native Hawaiian people requires more than clinical interventions, it demands upstream, midstream, and downstream action that addresses the structural, systemic, and social forces driving these inequities. The evidence is clear: most pregnancy-related deaths in these communities are preventable, and the solutions are already within reach. By committing to robust data equity standards, investing in culturally rooted models of care, expanding access to comprehensive perinatal services, and ensuring accountability across health, justice, and social service systems, lives can be saved and long-standing gaps in maternal outcomes can be closed.

Centering Tribal sovereignty, community leadership, and Indigenous knowledge is essential to achieving this vision. These approaches not only improve health outcomes but also repair trust, address historical and intergenerational trauma, and build systems that truly serve the needs of Indigenous families. With coordinated Federal, State, Tribal, and local action, we can create a future where pregnancy and birth are safe, supported, and celebrated for every American Indian, Alaska Native, and Native Hawaiian person.

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BIBLIOGRAPHY

- ACOG. (2021). *Reproductive Health Care for Incarcerated Pregnant, Postpartum, and Non Pregnant Individuals*. Committee Opinion Number 830. <https://www.acog.org/-/media/project/acog/acogorg/clinical/files/committee-opinion/articles/2021/07/reproductive-health-care-for-incarcerated-pregnant-postpartum.pdf?rev=75201d59f4d34d44a281ae110e86f423&hash=51CC5C4862A1E059B3B925514B67328A>
- ACIMM. (2022). Making Amends: Recommended Strategies and Actions to Improve the Health and Safety of American Indian and Alaska Native Mothers and Infants. Report submitted December, 2022 to Health and Human Services Secretary Xavier Becerra. Accessed online at: <https://web.archive.org/web/20241120215213/https://www.hrsa.gov/sites/default/files/hrsa/advisory-committees/infant-mortality/birth-outcomes-AI-AN-mothers-infants.pdf>
- APIGBV. (2021). *Domestic Violence, Sexual Violence, and Human Trafficking in Native Hawaiian Communities*. <https://api-gbv.org/wp-content/uploads/2021/08/DVFactSheet-Native-Hawaiians-Aug-2021.pdf>
- Behrendt, M.C. (2022). Settler colonial origins of intimate partner violence in Indigenous communities. *Sociology Compass*, 16(9), e13019. <https://doi.org/10.1111/soc4.13019>
- BraveHeart, M. Y. H. & Chase, J. (2016). Historical trauma among indigenous peoples of the Americas: Concepts, research, and clinical considerations. *Wounds of History*, 270-287.
- Cackler, C. J. J., Shapiro, V. B., & Lahiff, M. (2016). Female Sterilization and Poor Mental Health: Rates and Relatedness among American Indian and Alaska Native Women. *Women's Health Issues*, 26(2), 168–175. <https://doi.org/10.1016/j.whi.2015.10.002>
- California Department of Public Health. (2025, July 25). *Severe Maternal Morbidity*. <https://www.cdph.ca.gov/Programs/CFH/DMCAH/surveillance/Pages/Severe-Maternal-Morbidity.aspx>
- Center for Disease Control. (2020). *CDC works to address violence against American Indian and Alaska Native people*. National Center for Injury Prevention and Control. Online: <https://www.cdc.gov/injury-tribal/media/pdfs/2025/06/Violence-Against-Native-Peoples-Fact-Sheet.pdf>

Preventing Maternal Mortality and Morbidity

Center for Disease Control. (2022). *Pregnancy Related Deaths: Data from Maternal Mortality Review Committees in 36 States, 2017-2019*.

Center for Disease Control. (2025a). *Pregnancy-Related Deaths Among American Indian or Alaska Native Women by Timing of Death in Relation to Pregnancy, 2021. Data from Maternal Mortality Review Committees*. Online: https://www.cdc.gov/maternal-mortality/php/data-research/mmrc/aian.html?CDC_AAref_Val=https%3A%2F%2Fwww.cdc.gov%2Fmaternal-mortality%2Fphp%2Fdata-research%2F2017-2019-aian.html&cove-tab=1

Center for Disease Control. (2025b). *Underlying Causes of Pregnancy-Related Deaths Among American Indian or Alaska Native Women, 2021. Data from Maternal Mortality Review Committees*. Online: https://www.cdc.gov/maternal-mortality/php/data-research/mmrc/aian.html?CDC_AAref_Val=https%3A%2F%2Fwww.cdc.gov%2Fmaternal-mortality%2Fphp%2Fdata-research%2F2017-2019-aian.html&cove-tab=1

Center for Disease Control. (2025c). *Pregnancy-Related Deaths Among American Indian or Alaska Native Women: Data from Maternal Mortality Review Committee. Level of Contributing Factor and Recommendation Level- Contributing Factors, 2021*. Online: https://www.cdc.gov/maternal-mortality/php/data-research/mmrc/aian.html?CDC_AAref_Val=https%3A%2F%2Fwww.cdc.gov%2Fmaternal-mortality%2Fphp%2Fdata-research%2F2017-2019-aian.html&cove-tab=4

Chang, A. L., Hurwitz, E., Miyamura, J., Kaneshiro, B., & Sentell, T. (2015). Maternal risk factors and perinatal outcomes among pacific islander groups in Hawaii: a retrospective cohort study using statewide hospital data. *BMC Pregnancy and Childbirth*, 15(1). <https://doi.org/10.1186/s12884-015-0671-4>

Dawes, D. E. (2020). *The political determinants of health*. JHU Press.

Deloria, V. (1988). *Custer died for your sins: An Indian manifesto*. University of Oklahoma Press.

Department of Health and Human Services. (2012). *Center for Medicaid and CHIP Services Medicaid Coverage of Lactation Services Issue This issue brief sets forth current levels of State Medicaid coverage for lactation services and explores how CMS can encourage and assist States in increasing access to such services*. https://www.medicare.gov/medicaid/quality-of-care/downloads/lactation_services_issuebrief_01102012.pdf

Preventing Maternal Mortality and Morbidity

Dept. of Indian Affairs (2025) Federal Law and Indian Policy Overview: History of Indian Law and Policy.

<https://www.bia.gov/bia/history/IndianLawPolicy#the-allotment-and-assimilation-era-1887-1934-2>

Dewes, S., & Marks, B. (2017). *Twice Invisible: Understanding Rural Native America* [National Indigenous Resource Center].

https://www.niwrc.org/sites/default/files/files/reports/2017%20Twice%20Invisible%20-%20Research%20Note_0.pdf

Dunbar-Ortiz, R. (2019). *An Indigenous Peoples' History of the United States*. Beacon Press.

Egger, E. E., Basile Ibrahim, B., Nyhan, K., Desibhatla, M., Gleeson, D., & Hagaman, A. (2024). Patient-Defined Cultural Safety in Perinatal Interventions: A Qualitative Scoping Review. *Health Equity, 8*(1), 164–176.

<https://doi.org/10.1089/heq.2023.0152>

Fox, D. L., Ciara, D., Hansen, Ann, M., & Miller, J. D. (2022). *OVER-INCARCERATION OF NATIVE AMERICANS:*

ROOTS, INEQUITIES, AND SOLUTIONS. <https://safetyandjusticechallenge.org/wp-content/uploads/2022/07/OverIncarcerationOfNativeAmericans.pdf#:~:text=Several%20factors%20contribute:%20a%20history%20of%20federal,mental%20well%2Dbeing%20of%20Native%20people%2C%20a%20complicated>

General Accounting Office. (1976). *Investigation of Allegations Concerning Indian Health Service* (Government Report HRD-77-3, 18). <https://www.gao.gov/assets/hrd-77-3.pdf>

Giacci, E., Straits, K. J. E., Gelman, A., Miller-Walfish, S., Iwuanyanwu, R., & Miller, E. (2022). Intimate Partner and Sexual Violence, Reproductive Coercion, and Reproductive Health Among American Indian and Alaska Native Women: A Narrative Interview Study. *Journal of women's health (2002), 31*(1), 13–22. <https://doi.org/10.1089/jwh.2021.0056>

Go, M., Sokol, N., Ward, L. G., Anderson, M., & Sun, S. (2024). Characterizing sociodemographic disparities and predictors of Gestational Diabetes Mellitus among Asian and Native Hawaiian or other Pacific Islander pregnant people: an analysis of PRAMS data, 2016–2022. *BMC Pregnancy and Childbirth, 24*(1).

<https://doi.org/10.1186/s12884-024-07034-5>

Haozous, E. A., Strickland, C. J., Palacios, J. F., & Solomon, T. G. A. (2014). Blood Politics, Ethnic Identity, and Racial Misclassification among American Indians and Alaska Natives. *Journal of Environmental and Public Health, 2014*, 1–9. <https://doi.org/10.1155/2014/321604>

Preventing Maternal Mortality and Morbidity

Hawaii State Department of Health. (2018). *Violence Between Intimate Partners in Hawaii Across the Life Span*.

https://health.hawaii.gov/mchb/files/2018/12/IPV-Fact-Sheet_2018.pdf

Heck, J. L. (2021). Postpartum Depression in American Indian/Alaska Native Women. *MCN: The American Journal of Maternal/Child Nursing*, 46(1), 6–13. <https://doi.org/10.1097/nmc.0000000000000671>

Heck, J. L., Jones, E. J., Bohn, D., McCage, S., Parker, J. G., Parker, M., Pierce, S. L., & Campbell, J. (2021). Maternal Mortality Among American Indian/Alaska Native Women: A Scoping Review. *Journal of Women's Health*, 30(2), 220–229. <https://doi.org/10.1089/jwh.2020.8890>

Jim, M. A., Arias, E., Seneca, D. S., Hoopes, M. J., Jim, C. C., Johnson, N. J., & Wiggins, C. L. (2014). Racial Misclassification of American Indians and Alaska Natives by Indian Health Service Contract Health Service Delivery Area. *American Journal of Public Health*, 104(S3), S295–S302.

<https://doi.org/10.2105/ajph.2014.301933>

Missing and Murdered Indigenous People (MMIP): Overview of Recent Research, Legislation, and Selected Issues for Congress, (2023) (testimony of Updated July & Nathan James).

Kozhimannil, K. B., Interrante, J. D., Tofte, A. N., & Admon, L. K. (2020). Severe Maternal Morbidity and Mortality Among Indigenous Women in the United States. *Obstetrics & Gynecology*, 135(2), 294–300. <https://doi.org/10.1097/aog.0000000000003647>

Kramer, R. D., Higgins, J. A., Godecker, A. L., & Ehrenthal, D. B. (2018). Racial and ethnic differences in patterns of long-acting reversible contraceptive use in the United States, 2011–2015. *Contraception*, 97(5), 399–404. <https://doi.org/10.1016/j.contraception.2018.01.006>

Lawrence, J. (2000). The Indian Health Service and the Sterilization of Native American Women. *The American Indian Quarterly*, 24(3), 400–419. <https://doi.org/10.1353/aiq.2000.0008>

Maxwell, D., Mauldin, R., Thomas, J., & Holland, V. (2022). American Indian Motherhood and Historical Trauma: Keetoowah Experiences of Becoming Mothers. *International Journal of Environmental Research and Public Health*, 19(12), 7088. <https://doi.org/10.3390/ijerph19127088>

Maykin M, Tsai SP. Our Mothers Are Dying: The Current State of Maternal Mortality in Hawai'i and the United States. *Hawaii J Health Soc Welf*. 2020;79(10):302-305.

National Academy for State Health Policy. (2023). *Midwife Medicaid Reimbursement Policies by State*.

<https://nashp.org/state-tracker/midwife-medicaid-reimbursement-policies-by-state/>

Preventing Maternal Mortality and Morbidity

National Association of Certified Professional Midwives. (n.d.). *How much do states reimburse CPMs/LMs through Medicaid? CPM Medicaid Reimbursement as a Percentage of Physician Reimbursement.*

Retrieved September 29, 2025, from <https://www.nacpm.org/medicaid-reimbursement-rates>

National Association of Counties. (2023). *Effective Treatment for Opioid Use Disorder for Incarcerated Populations.: A NACo Opioid Solutions Strategy Brief.* Retrieved October 28, 2025, from:

https://www.naco.org/sites/default/files/documents/OSC_Incarcerated%20Pop_Final_Web.pdf

National Congress of American Indians. (2021). *Violence Against AI/AN Women & Girls* [Research Policy Update].

<https://cdn.sanity.io/files/raa5sn1v/production/edf33e8f528a50229887d7534e3943d1852aa65a.pdf>

Ndugga, N., Hill, L., & Artiga, S. (2024). *Key Data on Health and Health Care for Native Hawaiian or Pacific Islander People.* [https://www.kff.org/racial-equity-and-health-policy/key-data-health-and-health-](https://www.kff.org/racial-equity-and-health-policy/key-data-health-and-health-care-for-native-hawaiian-pacific-islander-people/)

[care-for-native-hawaiian-pacific-islander-people/](https://www.kff.org/racial-equity-and-health-policy/key-data-health-and-health-care-for-native-hawaiian-pacific-islander-people/)

Owais, S., Faltyn, M., Johnson, A. V. D., Gabel, C., Downey, B., Kates, N., & Van Lieshout, R. J. (2019). The Perinatal Mental Health of Indigenous Women: A Systematic Review and Meta-Analysis. *The Canadian Journal of Psychiatry*, 070674371987702. <https://doi.org/10.1177/0706743719877029>

<https://doi.org/10.1177/0706743719877029>

Palacios, J. F., & Portillo, C. J. (2008). Understanding Native Women's Health. *Journal of Transcultural Nursing*, 20(1), 15–27. <https://doi.org/10.1177/1043659608325844>

<https://doi.org/10.1177/1043659608325844>

Parker, T., Kelley, A., Redeye, L., & Maviglia, M. A. (2024). Domestic violence in American Indian and Alaska Native populations: a new framework for policy change and addressing the structural determinants of health. *The Lancet Regional Health - Americas*, 40, 100933.

<https://doi.org/10.1016/j.lana.2024.100933>

Prison Policy Initiative. (n.d.). *Native incarceration in the U.S.* Accessed online:

<https://www.prisonpolicy.org/profiles/native.html>

Redvers, N., Reid, P., Carroll, D., Kain, M. C., Kobei, D. M., Menzel, K., ... & Roth, G. (2023). Indigenous determinants of health: a unified call for progress. *The Lancet*, 402(10395), 7-9.

<https://doi.org/10.1016/j.lana.2024.100933>

Rollman, J. E., Thomas, M., Mercer Kollar, L. M., Ports, K. A., Clelland, C., Satter, D. E., & David-Ferdon, C. (2024). American Indian and Alaska Native violence prevention efforts: a systematic review, 1980 to 2018. *Injury Epidemiology*, 8(S2). <https://doi.org/10.1186/s40621-024-00488-3>

<https://doi.org/10.1186/s40621-024-00488-3>

Preventing Maternal Mortality and Morbidity

Rosay, A. B. (2016). *Violence Against American Indian and Alaska Native Women and Men: 2010 Findings From the National Intimate Partner and Sexual Violence Survey* [US Department of Justice].

<https://www.ojp.gov/pdffiles1/nij/249736.pdf>

Sharma, G., Kelliher, A., Deen, J., Parker, T., Hagerty, T., Choi, E. E., DeFilippis, E. M., Harn, K., Dempsey, R. J., & Lloyd-Jones, D. M. (2023). Status of Maternal Cardiovascular Health in American Indian and Alaska Native Individuals: A Scientific Statement From the American Heart Association. *Circulation: Cardiovascular Quality and Outcomes*, 16(6).

<https://doi.org/10.1161/hcq.000000000000117>

Skogseth, E. M., Strong-Jones, S., Brant, K., Quadri, O. H., & Jones, A. A. (2025). Mental Health Care Barriers for Women Involved in the Criminal Legal System With Substance Use Disorders: A Qualitative Study.

Criminal Justice and Behavior, 52(7), 1049-1066. <https://doi.org/10.1177/00938548251326174>

(Original work published 2025)

Steely Smith MK, Wilson SH, Zielinski MJ. An integrative literature review of substance use treatment service need and provision to pregnant and postpartum populations in carceral settings. *Women's Health*. 2023;19. doi:[10.1177/17455057221147802](https://doi.org/10.1177/17455057221147802)

<https://doi.org/10.1177/17455057221147802>

Steele-Baser M., Brown AL, D'Angelo DV et al., Intimate Partner Violence and Pregnancy and Infant Health Outcomes- Pregnancy Risk Monitoring System, Nine U.S. Jurisdictions, 2016-2022. *MMWR Morbidity and Mortality Weekly Report* 2024; 73:1093-1098.

Udall, M. (2005). *ESTABLISHING STANDARDS FOR THE PLACEMENT OF INDIAN CHILDREN IN FOSTER OR ADOPTIVE HOMES, TO PREVENT THE LOSS OF INDIAN FAMILIES, AND FOR OTHER PURPOSES* (95th Congress 2nd Session House of Representatives Report No. 1386).

<https://www.narf.org/nill/documents/icwa/federal/lh/hr1386.pdf>

United States Congress. (1987). *Use of the drug, Depo Provera, by the Indian Health Service : oversight hearing before the Subcommittee on General Oversight and Investigations of the Committee on Interior and Insular Affairs, House of Representatives, One Hundredth Congress, first session ... hearing held in Washington, DC, August 6, 1987. Description Tools.*

United States Government Accountability Office. (2016). *INDIAN HEALTH SERVICE Actions Needed to Improve Oversight of Patient Wait Times* (GAO-16-333). <https://www.gao.gov/assets/gao-16-333.pdf>

Preventing Maternal Mortality and Morbidity

United States Government Accountability Office. (2020). PREGNANT WOMEN IN STATE PRISONS AND LOCAL JAILS: *Federal Assistance to Support their Care* (GAO-25-106404). <https://www.gao.gov/assets/gao-25-106404.pdf>

United States Secretary of the Interior. (2022). *Federal Indian Boarding School Initiative Investigative Report* [US Government]. https://www.bia.gov/sites/default/files/dup/inline-files/bsi_investigative_report_may_2022_508.pdf

US Commission on Civil Rights. (2021). *Maternal Mortality and Health Disparities of American Indian Women in South Dakota*. <https://www.usccr.gov/files/2021/07-14-Maternal-Mortality-and-Health-Disparities-of-American-Indian-Women-in-South-Dakota.pdf>

US Department of the Interior Indian Affairs, I. (n.d.). *Indian Child Welfare Act*. <https://www.bia.gov/bia/ois/dhs/icwa>

Vergara R, Hayes D, Higashi J, Liang S, Kaiwi H, Arakaki K. “Violence Between Intimate Partners in Hawaii Across the Life Span. Data from BFRSS, PRAMS and YRBS” Honolulu, HI: Hawaii State Department of Health, Family Health Services Division; October 2018. https://health.hawaii.gov/fhsd/files/2019/02/IPV-Fact-Sheet_2018_FINAL_01-29-19-1.pdf

Wong JY, Zhu S, Ma H, Ip P, Chan KL, Leung WC. Intimate partner violence during pregnancy: To screen or not to screen?. *Best Pract Res Clin Obstet Gynaecol*. 2024;97:102541. doi:10.1016/j.bpobgyn.2024.102541