Report to the Legislature and the Governor's Council on the Healthiest Next Generation

Healthy Pregnancy Advisory Committee Report on Strategies for Improving Maternal and Infant Health Outcomes

November 2018
RCW 43.70.760

Prepared by the Division of Prevention and Community Health

Washington State Department of Health

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Contents

Executive Summary

In the United States, nearly 700 women die each year from pregnancy-related causes—one of the highest pregnancy-related mortality rates reported in a developed nation. The CDC reports that in 2014, the rate of pregnancy-related mortality was 18 deaths for every 100,000 live births.[1, 2, 3] Unlike national rates, maternal mortality rates in Washington have not increased over time. For 2014 to 2015, the pregnancy-related maternal mortality ratio for Washington was nine deaths per 100,000 births per year, similar to 1990s rates. In Washington, the recent maternal mortality review found a total of nine pregnancy-related deaths in 2014, and seven pregnancy-related deaths in 2015. The rate of pregnancy-related mortality for these two years was 9 deaths for every 100,000 live births.[4] However, Washington has large disparities in access to health care, healthy foods, and other healthy pregnancy resources for expectant parents.

In addition, while Washington has one of the lowest infant mortality rates in the nation at 4.8 per 1,000 live births, large inequities exist in birth outcomes for babies. African American, American Indian/Alaska Native, and Native Hawaiian and other Pacific Islander babies are twice as likely to die before their first birthday, as white babies. Further, these inequities have been relatively constant over time.[5] Children who experience poverty, trauma, violence, maltreatment, and other adverse childhood experiences and community environments can have delayed brain development and learning ability.[6] For these children, lifelong health and well-being can be negatively impacted.

In 2017, the Washington State Department of Health (DOH) established the Healthy Pregnancy Advisory Committee in response to Washington State Substitute Senate Bill 5835: *Promoting healthy outcomes for pregnant women and infants*. The bill called for best practices that state agencies and health care stakeholders can integrate into their programs to improve birth outcomes, reduce maternal mortality and morbidity, and reduce infant mortality.

After a review of the state Maternal Mortality Report, Infant Mortality Reduction Report, Washington State Perinatal Indicators report, and several months of engagement with committee members, the maternal mortality review panel, stakeholders and partners, the Advisory Committee drafted strategies to improve outcomes for mothers and children in the following areas:

- Provide support for families before, during, and after pregnancy
- Support family planning and sexual health education
- Fund efforts to understand and address the causes of infant and maternal mortality
- Address social determinants of health and improve access to whole-person care

The strategies are comprehensive, providing approaches for family planning, contraception, and prenatal, intrapartum, newborn, and postpartum interventions. All strategies are evidence-based or emerging practices that work toward meaningful, positive outcomes for populations facing the greatest disparities.

Background

Washington State Substitute Senate Bill 5835 (SSB 5853): *Promoting healthy outcomes for pregnant women and infants* became effective July 23, 2017. Multiple entities and state agencies have a role in carrying out the law's directives (RCW 43.70.760). The specific strategies in this report were written to address section five of the legislation, in which DOH was charged with establishing the Healthy Pregnancy Advisory Committee (the Committee).

Process

The Committee included 17 individuals representing state agencies, hospitals, maternity care providers, pediatric care providers, and providers working with populations that statistically have poorer maternal and infant health outcomes than average, including people of color and immigrants to the United States. The Committee met between August 2017 and February 2018 to discuss and select strategies that could improve maternal and child health outcomes in Washington. The Committee considered strategies that agencies can integrate into existing programs to improve birth outcomes as well as reduce maternal and infant mortality and morbidities. They discussed more than 80 strategies related to breastfeeding, access to prenatal and postpartum care, tobacco and substance use, nutrition, oral health, and injury and violence prevention. In assessing and selecting strategies, the Committee considered:

- Impact on health outcomes and health equity
- Evidence of need for and effectiveness of the intervention or strategy (evidence-based or evidence-informed strategies)
- Alignment with existing recommendations (not duplicative of or in competition with existing recommendations)
- Alignment with existing state health priorities, recommendations, and initiatives
- Type of action needed (legislative, administrative, organizational policy, etc.)
- Key stakeholders to engage
- Fiscal impact to the state (high, low, neutral)

The Committee also looked at information in literature or from agencies regarding costs or cost-benefit analysis, if available.

A draft set of strategies was distributed for stakeholder feedback. DOH received feedback from 47 individuals or organizations. In July 2018, the Committee reconvened to address the feedback and finalize the strategies. Meeting minutes can be found on the state Department of Health website.

Health Equity Impact

In order to maintain a focus on health equity, each proposed recommendation prioritizes populations that disproportionately experience adverse outcomes. Priority populations include individuals with low incomes; communities of color, including American Indians and Alaska Natives, African Americans, and Native Hawaiians and other Pacific Islanders; people with substance use disorders; individuals with limited English proficiency; and medically underserved populations.

The health equity impact was presented through reports to committee members and discussed at meetings. Health equity information was also included in the document sent to members that outlined all of the strategies. As members went through the strategies to make final recommendations, they were encouraged to prioritize strategies that were developed with a health equity impact.

Recommended Strategies

The Committee selected the following 18 strategies for consideration by the Washington State Legislature, the Governor's Council on Healthiest Next Generation, and state agencies as they consider program implementation, quality improvement initiatives, and policies to improve maternal and child health.

Provide support for families before, during, and after pregnancy

A. Ensure all preterm birth education materials meet national culturally and linguistically appropriate services (CLAS) standards.

Rationale: While there are many excellent resources available to inform expecting parents about the warning signs of preterm birth, most are only available in English or a few other languages. The national CLAS standards are a set of 15 action steps intended to advance health equity, improve care quality, and help eliminate health disparities by providing a blueprint for individuals and health care organizations to implement culturally and linguistically appropriate services including translation.

B. Increase funding to existing programs, such as Maternity Support Services, Infant Case Management, Nurse Family Partnership, Parents as Teachers, and Family Spirit.

Rationale: The U.S. Department of Health and Human Services promotes evidence-based home visiting programs because of the well-documented impacts they make to improve well-being, prevent child abuse and neglect, and reduce infant and maternal mortality. In addition, case management can improve birth outcomes, especially among women enrolled in Medicaid.[7] Continued and expanded support for these programs provides ongoing care to the populations they serve and offers the possibility for scope and service expansion to other populations.

C. Enhance payment for evidence-informed group prenatal and postpartum care.[8]

Rationale: The committee urges the exploration of financing mechanisms that support sustainability of group prenatal care for Washington. Group prenatal care supplements the clinical aspects of prenatal care with patient education and social support. Evidence has demonstrated that group prenatal care reduces rates of preterm birth and very low birth weights in infants, increases the number of women who breastfeed their babies, and increases patient knowledge of the benefits of pregnancy spacing. Group prenatal care may be especially helpful in addressing disparities in birth outcomes.[9] A few pilot programs of group prenatal care have occurred in Washington. However, these were supported by grants and are at risk of not being sustained. The current reimbursement for group prenatal care is not sufficient to cover the costs and effort associated with this intervention. Montana, Texas, and South Carolina are among states that provide additional payment for facilitated, evidence-based, or evidence-informed group prenatal care.

D. Implement a statewide transfer protocol, such as Smooth Transitions, for all birthing hospitals to directly admit laboring, intrapartum, and postpartum clients from community-based birth settings, to labor and delivery floor when available.

Rationale: Expecting parents have the right to choose any licensed birthing provider to deliver their baby. Currently, women who choose a birth center or home birth setting but who must later be transferred to a higher level of care are often dependent on the relationships and transfer agreements their clinician has with a hospital-based provider. The Smooth Transitions protocol has been implemented in some birthing hospitals in Washington. A statewide protocol or hospital agreement would allow laboring women to have a timely transfer to the nearest birthing hospital that can meet their health care needs.

E. Require insurance carriers to cover at least one in-home visit from a licensed midwife or postpartum nurse to new mothers, new caregivers, and newborn babies.

Rationale: The Washington State Maternal Mortality Review Panel recently found that between 2014 and 2015, the majority of pregnancy-related deaths occurred within the first seven days after a woman gave birth. These deaths may have been prevented by an in-home visit by a nurse or licensed midwife to assess the recovering woman and her newborn for postpartum medical conditions, such as elevated blood pressure, sepsis, mood disorders, or retained placenta.

During an in-home visit, the nurse or licensed midwife would coordinate immediate medical, mental health or economic needs, identify parents and infants who are at risk of adverse outcomes, and facilitate access to appropriate resources and home visiting services as necessary to meet the specific needs of each family. These providers would also conduct culturally sensitive assessments for postpartum risk, medical and psychosocial well-being, socioeconomic needs and risk factors, car seat safety, safe sleep practices, and other child injury concerns, breastfeeding support, contraception, and other factors as appropriate.

During the early postpartum period, parents and infants are at increased risk for many adverse health outcomes. Patients are vulnerable to conditions such as postpartum mood disorder and postpartum eclampsia during the first six weeks after birth. The risk for fatal outcomes is increased if the patient has a condition such as hypertension in pregnancy or a mental health diagnosis.

The evidence for in-home nurse visits and their positive and protective influence on maternal and infant mortality has been well-documented.[10, 11, 12, 13] In-home nurse visits are supported by the U.S. Department of Health and Human Services as an infant and maternal mortality prevention activity. This model of postpartum care has already been implemented in Canada and Europe, where there are lower infant and maternal mortality rates than in the United States. The recently published Infant Mortality Reduction Report notes that the majority of infant deaths occur within the first four weeks after birth.[5] To improve newborn outcomes, newborns and postpartum women should be assessed for the following:

- Vital signs
- Presence of jaundice
- Whether medications are appropriate to treat an illness, injury, or condition in the postpartum woman or her baby
- Maternal depression and anxiety
- Feeding and breastfeeding concerns
- Smoking status and, if applicable, given smoking cessation resources

In addition, providers can check for:

- Presence and correct installation of an infant car seat
- Efforts to prevent injury to the newborn in the home
- The presence of a safe sleep environment for the newborn
- Substance use or risk of exposure in the home environment

Nurses and midwives can provide newborn care up to two weeks and postpartum care up to eight weeks after birth. These professionals can quickly address medical and mental health issues, and assess families for socioeconomic needs, ensure the safety of both postpartum women and infants, help families to access resources to promote health and well-being, and address health care disparities at the patient level.

In order to provide greater capacity for culturally sensitive in-home visits, the Committee recommends the Legislature enact legislation requiring insurance carriers to pay for in-home visits by community health workers (CHW) or community health representatives (CHR). These visits would be coordinated by a nurse. CHWs and CHRs are public health workers who are trusted members of the communities they serve. As members of their communities, they have a close understanding of their respective communities' languages, traditions, and cultures. CHWs and CHRs serve as links between the clinical settings and communities to support access to services and improve the quality and cultural competence of service delivery. They assist by increasing health knowledge of patients and communities through a broad range of activities, such as transportation to health visits, outreach, community education, informal counseling, social support, and patient advocacy. [14, 15]

F. Encourage facilities and providers to initiate postpartum telephone follow-up within 48 to 72 hours after hospital discharge to assess the well-being of mothers and their infants.

Rationale: The postpartum period is a vulnerable time for infants and mothers who experience higher risks for adverse outcomes. Efforts focused on preventing readmissions after inpatient hospitalizations throughout the United States have prompted all types of health care facilities to initiate 48- to 72-hour post-discharge phone calls for patients leaving acute and skilled nursing care. This activity is meant to assess the well-being and transition of the patient from the inpatient care setting to the home setting. This transition activity can help the patient address any issues that may arise, especially barriers to care, and improve patient satisfaction.[16, 17, 18, 19]

This same concept can be applied to the postpartum period for both mother and baby with facility or provider initiated telephone calls[20] that occur within the first 48 to 72 hours after discharge. This phone call would assess a mother's and infant's overall well-being and mitigate postpartum medical and mental health issues before an adverse outcome develops. This telephone assessment, ideally conducted by a nurse from an obstetric provider or other discharging facility, would include follow up about:

- Pain levels
- Medication access and understanding
- Postpartum bleeding
- Potential risk for postpartum emergencies
- Postpartum depression (including risk for suicide) and mental health concerns
- Transportation to upcoming medical appointments
- Safe sleep environment
- Car seat use
- Shaken baby prevention
- Nutrition and breastfeeding needs
- Diabetes or hypertension in pregnancy
- Maternal and infant fluid intake and output
- Immediate medical needs, including referring patients to an emergency department or other providers for follow up care
- Health equity issues, to ensure each family has specific needs met

G. Fund and support a continuum of community-based, culturally appropriate lactation support providers (including but not limited to doulas, WIC peer counselors, dietitians, nurses, CHRs, and CHWs) through a variety of sources, such as hospitals, WIC agencies, and payers.

Rationale: Washington State has a high breastfeeding initiation rate of 97 percent at hospital discharge when the newborn is one to two days old, according to Pregnancy Risk Assessment Monitoring System (PRAMS).[21] The rate of exclusive breastfeeding drops to 28 percent when the infant is six months of age. This is a decrease of almost 70 percent. Community-based breastfeeding support services help families breastfeed exclusively longer. In addition, culture, ethnicity, the presence of family support, and income all play roles in the ability to sustain breastfeeding. Training and reimbursing lactation counselors will assist the state in improving maternal and infant health outcomes. This would complement the state's Breastfeeding Friendly Washington program, which recognizes birth facilities for taking key steps to promote breastfeeding by providing families lactation support in their communities.

Support family planning and sexual health education

H. Increase state funding of family planning clinics through the DOH Family Planning Program and the state Health Care Authority (HCA) Family Planning Only programs to expand contraceptive care.[22]

Rationale: Based on 2015 data, about 38 percent of pregnancies in Washington State are unintended. Unintended pregnancies are defined as pregnancies that occur when a woman did not want to become pregnant or would have preferred to become pregnant at a later date. Babies born to women whose pregnancies were unintended are more likely to be born preterm and have low birth weights. Reducing unintended pregnancy can help improve social outcomes, such as high school graduation rates, wage earning potential, and family stability.[23, 24] Because resources such as affordable health insurance, quality reproductive care, and contraception are not uniformly accessible across the state, expanding the availability of contraception is essential to prevent unintended pregnancies regardless of a patient's geographic location, ethnicity, or enrollment in a health insurance plan. In 2016, family planning programs at DOH and HCA prevented an estimated 21,500 unintended pregnancies, saving the state an estimated $168 million in health care costs. However, these programs are still not reaching all people who need them.[25]

I. Ensure all school districts provide sexual health education per the requirements outlined in the Healthy Youth Act of Washington.

Rationale: The Committee recommends that state agencies, including the Office of the Superintendent of Public Instruction and DOH, support school districts and boards of health with information and technical assistance so that more choose to offer scientifically accurate and age-appropriate sexual health education. Current state law requires every public school that offers sexual health education to provide information that is medically and scientifically accurate and age-appropriate, regardless of gender, race, disability status, or sexual orientation. Sexual health education must also include information about methods of preventing unintended pregnancy, as well as sexually transmitted infections.[26] However, schools and districts are not required to provide sexual health education. This decision is up to local boards of health.

Fund efforts to understand and address the causes of infant and maternal mortality

J. Fund implementation of a statewide infant death review with a focus on populations with highest rates of infant mortality, to identify causes of death and prioritize funding accordingly.

Rationale: Mortality reviews are an effective way to determine whether deaths were preventable and identify the underlying causes of death. Mortality reviews require sourcing from multiple records including vital records, such as birth and death certificates, medical records, social service and health care coverage records, and death investigations. From this information, experts can determine specific causes and contributing factors leading to death in all types of systems, including health care and social systems; identify specific interventions that could have prevented individual deaths; and translate those into action aimed at prevention. In addition, aggregate data from infant death review can illuminate trends and risk factors, and ultimately identify where to focus mortality reduction efforts.

K. Prioritize funding for communities with the highest infant mortality rate.

Rationale: The infant mortality rate among non-Hispanic American Indians/Alaska Natives and African Americans in Washington remains higher than for non-Hispanic white infants. The state may be able to reduce racial disparities in infant deaths by funding reviews of deaths in communities with high infant mortality rates, disseminating the findings, identifying prevention strategies, and funding evidence-based, practice-based, or evidence-informed interventions.

L. Revise and fund RCW 70.54.450 to include reporting and autopsy of maternal deaths, and to allow statewide partners to work on quality improvement stemming from maternal mortality review findings.

Rationale: RCW 70.54.450 directs the Department of Health to convene a Maternal Mortality Review Panel to conduct multidisciplinary reviews of all maternal deaths in Washington, identify factors associated with those deaths, and make recommendations for system changes to improve health care services for women. Of the 16 pregnancy-related deaths in the *2014 – 2015 Maternal Mortality Review*, fewer than half received an autopsy. Autopsy and death investigations are critical to mortality reviews and illuminate factors surrounding deaths that are not found in other information sources. To improve identification of cause of death for maternal mortality, the committee recommends amending RCW 70.54.450 to require that hospital and birth centers report all maternal deaths that occur during pregnancy or within 42 days after the end of pregnancy to the local coroner or medical examiner's office. It is recommended that those deaths receive investigations and autopsies to determine causes of death and that Washington counties be reimbursed for the cost of those autopsies by the Forensic Investigation Council.

M. Continue to implement state Medicaid incentives for hospitals to create a policy and procedure to address hemorrhage and hypertension in obstetric patients.

Rationale: According to the state's *Maternal Mortality Review*, postpartum hemorrhage and hypertension were the leading causes of pregnancy-related deaths in 2014 and 2015. Evidence-based protocols, such as Washington State Hospital Association Safety Bundles, which outline topic-specific protocols and procedures to ensure patient safety, allow birth facilities to be prepared to quickly recognize and treat obstetric emergencies, including hemorrhaging and hypertension. Ensuring all hospitals have policies or protocols to address readiness, recognition, and response to maternal hemorrhage and severe hypertension/preeclampsia is a first step to reducing the incidence of severe maternal morbidity and mortality in Washington. Currently, Washington offers a Medicaid quality incentive for hospitals with obstetrical programs that submit their maternal blood transfusion data to HCA and confirm they have a hemorrhage cart with medication kit on every maternal floor.

N. Fund culturally sensitive and responsive programs that decrease infant mortality and improve other maternal and child health outcomes—for example, programs that use doulas, CHWs, and CHRs in tribal communities.

Rationale: CHWs and CHRs are frontline health workers and trusted members of communities. As members of their communities, these providers understand the people and communities they serve. These trusting relationships enable CHWs to serve as liaisons between health and social services. Evidence shows that CHWs improve access to care and health outcomes for vulnerable populations. A 2015 CDC report underscored the effectiveness of CHWs in promoting primary and follow-up care for a wide range of health care concerns, including asthma, maternal and child health, diabetes, and newborn care.[27] In addition, the Massachusetts Department of Health found that CHWs help contain costs by preventing unnecessary hospitalizations and use of emergency departments and urgent care facilities.[28]

Address social determinants of health and improve access to whole-person care

O. Support programs and policies that address social determinants of health and social inequities, such as increasing income and food security, housing stability, and rent control; improving educational attainment, affordable childcare, and parental leave; and expanding health care coverage and access.

Rationale: It would be ideal if health-related organizations that serve families with infants could assist clients in applying online for health or social services and programs to meet the family's basic needs. A special emphasis should be placed on pregnant or parenting minors. In addition, it would benefit Washingtonians if the multiple information referral systems (for example, WithinReach, Washington Connection, Washington 211) could be integrated or linked.

There is increasing evidence that social policies, such as housing vouchers, family strengthening programs, income supplementation, food vouchers, and employment programs can directly influence adult mental and physical health.[29] Social determinants of health, particularly a lack of stable housing, directly impact the health of all Washingtonians, particularly women and children.

Exposure to racism and stress increase the potential for poor health outcomes. Stress can also compound socioeconomic issues that lead to poor health outcomes. Stress related to living in a society with a legacy of racial discrimination and historical trauma may be a major factor in explaining poor health outcomes among communities of color. Even for someone who has not personally experienced overt bias, the constant awareness that they or a loved one could be unfairly perceived or treated can be a source of chronic stress.[30]

Further, when children experience poverty, trauma, homelessness, violence, maltreatment and other adverse childhood experiences or community environments, their brain development, learning ability, lifelong health, and well-being can be negatively impacted.

The short- and long-term outcomes of adverse childhood experiences include health problems such as substance misuse and dependency, chronic obstructive pulmonary disease, depression, fetal death, decreased health-related quality of life, heart and liver disease, increased risk for HIV and other sexually transmitted infections, suicide, and unintended pregnancy.[31]

P. Fund, expand, and create new care sites for evidence-based or emerging practice models that integrate mental health, substance use treatment, and pregnancy, postpartum and parenting skills, including inpatient and outpatient treatment facilities or intensive case management.

Rationale: There is increasing evidence that substance misuse and mental health treatment must take into consideration the complexity and influencing factors in a woman's life. This includes a woman's social and economic environment, her relationships with family, extended family, and support systems, and the impact of gender and culture. Women face many obstacles and challenges engaging in treatment services, such as lack of collaboration among social service systems, limited options for women who are pregnant, lack of culturally appropriate programming, few resources for mothers with behavioral health challenges, fear of losing child custody, and the stigmatization of substance use. The Committee concluded that more treatment options need to be created in more remote geographic areas in our state in order to serve women with children.

Q. Work with pediatric and family practice providers to implement culturally appropriate patient care protocols that screen the mother for smoking status, anxiety, and depression at well-baby checks during the first year of the baby's life.

Rationale: Postpartum depression affects nearly 15 percent of women. This condition can lead to difficulties in bonding between caregiver and infant, affect a child's growth and development, and is associated with both infant and maternal mortality.[32,33] Currently, under the state Medicaid program, postpartum depression screening is recommended and reimbursed at well-child checkups for people who care for infants ages six months or younger.

The American Academy of Pediatrics recommends pediatricians begin screening mothers for postpartum depression symptoms during infant well-child examinations.[34] Well-child visits with any newborn provider offer an opportunity to assess both mother and child, and provide services and interventions necessary to keep the family healthy and safe. These screenings must take into consideration a person's culture to increase the likelihood of them following up with provider suggestions.

For example, tobacco use is a serious health issue for all members of a family. Most parents, particularly those without insurance, see their child's health care provider more often than their own. Because of their regular, frequent contacts with families, pediatric and family practice providers are well-positioned to help parents quit smoking. Reducing children's exposure to second- and third-hand smoke can reduce infant mortality and chronic diseases,

and lead to fewer children growing up to be smokers. Washington Apple Health reimburses providers for smoking cessation referrals for caregivers and mothers age 18 years and older who are pregnant. In addition to tobacco cessation referrals, Washington Apple Health reimburses providers for counseling pregnant women through two attempts to cease tobacco use per year, with each attempt consisting of four face-to-face counseling sessions.

R. Train and support health care providers to provide quality care that is inclusive of lesbian, gay, bisexual, transgender, and queer (LGBTQ) residents.

Rationale: Studies show that LGBTQ populations, in addition to having the same basic health needs as the general population, experience health disparities and barriers related to sexual orientation, gender identity, or gender expression. Many avoid or delay care or receive inappropriate or inferior care because of perceived or real stigmatization, bias, and discrimination by health care providers and institutions.[35]

A recent report from the Bree Collaborative makes recommendations health care providers can adopt to promote the health of their LGBTQ patients by examining their respective practices, offices, policies, and staff training to ensure access to quality health care for LGBTQ people.[36]

Conclusion

The Committee selected strategies to aid the Washington State Legislature, Governor's Council on Healthiest Next Generation, and state agencies as they consider program implementation, quality improvement initiatives, and policies to improve maternal and child health.

The Committee's discussions related to improving maternal and infant health outcomes highlighted the complexity of social, cultural, economic, and health factors in improving health outcomes for these populations. The Committee selected 18 strategies most likely to improve maternal and child health outcomes in Washington. Implementation of multiple strategies provides the best opportunity to truly impact morbidity and mortality in maternal and infant health.

Two strategies called out in the legislation are not explicitly addressed in this report – oral health and breastfeeding. The Committee looked at the options for improving access to dental care and found the state Health Care Authority's Oral Health Connections pilot project is addressing this issue. The purpose of their pilot project is to integrate oral health care and primary care for adults with diabetes and pregnant women located in Cowlitz, Thurston, and Spokane counties.

The committee also found that the state's Breastfeeding Friendly Washington program was a more cost-effective solution than incentivizing hospitals to adopt the national baby-friendly designation. A large number of other strategies were also discussed, which appear in Appendix A of this report.

Appendix A: Proposed Pregnancy Outcome Strategies

These strategies did not meet the Healthy Pregnancy Advisory Committee's criteria for highest priority recommendations; however, there was agreement among members that these strategies improve pregnancy outcomes:

- Fund the recommendation from the Governor's Interagency Council on Health Disparities to support the American Indian Health Commission's Maternal-Infant Health Strategic Plan.
- Fund programs that prioritize women working in the agricultural field to improve their maternal and child health outcomes.
- Certify International Board Certified Lactation Consultants through the Washington State Department of Health (DOH) to increase access to lactation support across rural and urban populations.
- Restore funding for an evidence-based, statewide tobacco prevention and control program.
- Provide dedicated one-time funding to train interested individuals on how to provide lay or peer breastfeeding support. This training would be based on the evidence-based USDA WIC training: Loving Support through Peer Counseling.
- In collaboration with the State Board of Health, DOH should request the legislature to amend RCW 70.83 to add hearing loss to the list of conditions for which all newborns are screened.
- Work with Washington State Health Care Authority and Office of the Insurance Commissioner to establish a minimum health benefits package for comprehensive tobacco cessation services covered by public and private insurers.
- Legislate raising the minimum sales age for tobacco and vapor products from 18 to 21.
- Fund and amend RCW 43.70.640 *Workplace breastfeeding policies—Infant-Friendly designation* to reflect the Breastfeeding Friendly Program.
- Provide state funds to maintain the Fruit and Vegetable Nutrition Incentives Program for low-income consumers. (Funded until 2020 by a federal grant.)
- Fund tobacco cessation resources including a sustained Washington State Quitline for residents who are uninsured or underinsured.
- Provide one-time startup funding to help establish a master degree-level genetic counseling training program.
- Support amendment of RCW 46.61.687 to specify rear-facing car seats for two-year-olds.
- Provide DOH with the authority to collect a point-of-care fee that would support the surveillance and follow-up activities associated with newborn screens that occur at the hospital such as for hearing and critical congenital heart disease.
- Provide family planning services at needle exchange sites across the state.
- Encourage statewide dissemination of the marijuana messages for preconception, pregnant, or breastfeeding women endorsed by the American College of Obstetricians and Gynecologists (October 2017).
- Explore the use of the Pathways Community Hub Model to reduce racial disparities in maternal-infant health.

- Promote keeping children in rear-facing car seats until age two through local public health, Safe Kids, and Target Zero partnerships.
- Increase birthing hospitals, clinics, and primary care providers that implement programs for tubal ligation and long-acting reversible contraception (LARC) insertion during the postpartum inpatient period.
- Educate women about having a safety plan that includes a check-in person whom the woman would contact at least every 24 hours during the first two weeks after birth or end of pregnancy.
- Develop and disseminate quality improvement guidelines geared for women with a high body mass index, which will include consultation by maternal fetal medicine specialists and potentially a cardiologist.
- Improve patient education about maternal early warning signs and when to call their provider or go to the emergency department.
- Institute quality improvement measures to ensure that every child receives well-child visits, according to the American Academy of Pediatrics Bright Futures Initiative.
- Encourage obstetric providers to make sure pregnant women receive flu and T-dap vaccines with every pregnancy.
- Provide culturally appropriate information to women about the importance of medical consultation and management of maternal chronic conditions before pregnancy in order to decrease risk of prematurity.
- Promote the use of and educate women of reproductive age about the benefits of taking folic acid and its impact on preventing congenital anomalies, the leading cause of infant death.
- Clinics providing contraception services should disseminate culturally appropriate educational materials related to contraception options with particular sensitivity to ensuring each woman's choice of contraception is the right one for her.
- Promote the Safe Haven law (RCW 13.34.360) and encourage potential drop-off locations to promote use through signage and policies as well as educate future parents about the law.
- Work with Washington State's Accountable Communities of Health and state agencies to advance implementation of the Interagency Guideline on Prescription Opioids for Pain.
- Promote the use of the national Text4Baby campaign as an educational tool for parents and caregivers in Washington State.
- Continue existing efforts and expand resources to link databases to provide evidence for program planning, policy development and quality improvement.
- DOH should collaborate with local health jurisdiction perinatal hepatitis B coordinators and obstetric providers to identify more hepatitis B-positive pregnant women, so that newborns can receive timely prophylaxis to prevent hepatitis B infection.
- Promote national guidelines around single embryo transfers for specific age groups.
- Promote the Washington State Hospital Association's Safe Deliveries Roadmap.
- Provide a facility fee for hospitals that provide delivery for women with body mass index of 50 or higher.
- Evaluate options for reimbursement of doulas. There is evidence that doula care improves labor outcomes by reducing cesarean deliveries, length of labor, and pain medication use, as well as increasing rates of breastfeeding.

- Explore virtual follow-up care for women who cannot access in-person care for lactation support, depression screening, medication management, and follow up for chronic diseases.
- Analyze whether the price or prior authorization or both for the 17 alpha-hydroxyprogesterone caproate (also called 17P) is delaying or preventing treatment for women who need this medication to prevent a premature birth. Also fund outreach to women who may need it.

Appendix B:
Healthy Pregnancy Advisory Committee & Meetings

Meeting date	Topics covered
August 30, 2017	Introduction
September 20, 2017	Maternal mortality
October 25, 2017	Maternal mortality, dental, fruits and vegetable consumption, obesity prevention Immunization, perinatal Hepatitis B
November 29, 2017	Prenatal care access Infant mortality Injury prevention
December 6, 2017	Infant mortality
December 20, 2017	Lactation support, Breastfeeding Friendly Washington Smoking/vaping/marijuana WIC, early hearing detection and diagnosis
January 17, 2018	Hearing-loss, genetics, newborn screening
February 21, 2018	Prioritization and legislative report review with committee
July 17, 2018	Review of stakeholder comments and agreement on final recommendations

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Endnotes

[1] G.K. Sigh, Health Resources and Services Administration, Maternal and Child Death Bureau *Maternal Mortality in the United States 1935-2007: Substantial racial/ethnic, socioeconomic and geographic disparities persist*. (Rockville, Maryland: U.S. Department of Health and Human Services, 2010)

[2] Central intelligence Agency, "Country Comparison: Maternal Mortality Rate." The World Factbook, 2015, available online at: https://www.cia.gov/library/publications/the-world-factbook/rankorder/2223rank.html

[3] Centers for Disease Control & Prevention "Pregnancy-Related Deaths," Reproductive Health - Maternal and Infant Health. May 9, 2018, available online at: https://www.cdc.gov/reproductivehealth/maternalinfanthealth/pregnancy-relatedmortality.html

[4] Washington State Department of Health, "2014-2015 Maternal Mortality Review," Maternal Mortality Review Panel. March, 2017, available online at: www.doh.wa.gov/Portals/1/Documents/Pubs/140-154-MMRReport.pdf.

[5] Washington State Department of Health, *Infant Mortality Reduction Report*, (Tumwater, Washington: Washington State Department of Health, 2017), Infants, Children, and Teens. December, 2017, available online at: www.doh.wa.gov/Portals/1/Documents/Pubs/140-157-InfantMortalityReductionReport.pdf.

[6] Ellis, Wendy R., Dietz, William H. "A New Framework for Addressing Adverse Childhood and Community Experiences: The Building Community Resilience Model," *Academic Pediatrics* Vol. 17, Issue 7 – Supplement (October 2017): S86-S93, available online at: https://www.sciencedirect.com/science/article/pii/S1876285916305526?via%3Dihub

[7] Hillemeier, Marianna Ph.D., Domino, Marisa Ph.D., Wells, Rebecca Ph.D., Goyal Ravi Ph.D., Kum, ye-Chung Ph.D., Cilenti, Dorothy Dr.PH, Whitmire, J. Timothy Ph.D., Basu, Anirban Ph.D. "Effects of Maternity Care Coordination on Pregnancy Outcomes: Propensity-Weighted Analyses," *Maternal and Child Health Journal* 2015 Jan; 19(1): 121-127, available online at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4459720/

[8] American College of Obstetricians and Gynecologists, "Group Prenatal Care," *American College of Obstetricians and Gynecologists Committee Opinion No. 731*. Obstet Gynecol 2018; Vol. 131, No. 3 (2018): e104-e108, available online at: https://www.acog.org/-/media/Committee-Opinions/Committee-on-Obstetric-Practice/co731.pdf?dmc=1

[9] Sara E. Mazzoni MD, MPH and Ebony B. Carter MD, MPH, "Group Prenatal Care," *American Journal of Obstetrics and Gynecology* Vol 216, Issue 6 (2017): 552-556, available online at: www.sciencedirect.com/science/article/pii/S0002937817301850.

[10] Armstrong, K. L., Fraser, J. A., Dadds, M. R., & Morris, J. (1999). "A randomized, controlled trial of nurse home visiting to vulnerable families with newborns," Journal of Pediatrics and Child Health, 35(3), 237-244

[11] Dodge, K. A. (2015). "Nurse home visits for infants and toddlers of low-income families improve behavioral, language and attention outcomes at age 6–9 years; paraprofessional visits improve visual attention and task switching." *Evidence-based Nursing* 18(2), 50-51.

[12] Harvey, E. M., Strobino, D., Sherrod, L., Webb, M. C., Anderson, C., White, J. A., & Atlas, R. (2017). "Community-academic partnership to investigate low birth weight deliveries and improve maternal and infant outcomes at a Baltimore city hospital." *Maternal and Child Health Journal* 21(2), 260-266.

[13] Olds, D. L., Kitzman, H., Knudtson, M. D., Anson, E., Smith, J. A., & Cole, R. (2014). "Effect of home visiting by nurses on maternal and child mortality: results of a two-decade follow-up of a randomized clinical trial." *Journal of the American Medical Association - Pediatrics* 168(9), 800-806.

[14] Dawn Satterfield, Chris Burd, Lorraine Valdez, Gwen Hosey, and John Eagle Shield, "The "In-Between People": Participation of Community Health Representatives in Diabetes Prevention and Care in American Indian and Alaska Native Communities," *Health Promotion Practice*, Vol 3, Issue 2 (2002) 166-175, available online at: https://doi.org/10.1177/152483990200300212.

[15] Ibid

[16] Dudas, V., Bookwalter, T., Kerr, K. M., & Pantilat, S. Z. (2001). "The impact of follow-up telephone calls to patients after hospitalization," *The American Journal of Medicine*, 111(9), (December 2001): 26-30.

[17] American College of Obstetricians and Gynecologists, "Optimizing Postpartum Care," *ACOG Committee Opinion No. 736*. Obstet Gynecol 2018, Vol. 131, (2018): e140–e150.

[18] Harrison, J. D., Auerbach, A. D., Quinn, K., Kynoch, E., & Mourad, M. (2014). "Assessing the impact of nurse post-discharge telephone calls on 30-day hospital readmission rates," *Journal of General Internal Medicine*, 29(11), (2014): 1519-1525.

[19] Soong, C., Kurabi, B., Wells, D., Caines, L., Morgan, M. W., Ramsden, R., & Bell, C. M. (2014). "Do post discharge phone calls improve care transitions? A cluster-randomized trial." *Public Library of Science One* Vol. 9(11), e112230.

[20] Ibid

[21] Washington State Department of Health, "Perinatal Indicators Report for Washington Residents," Washington State Perinatal Collaborative. July, 2017, available online at: www.doh.wa.gov/portals/1/Documents/Pubs/950-153_PerinatalIndicatorsforWashingtonResidents.pdf

[22] Washington State Department of Health, "Multi Agency Unintended Pregnancy Prevention," Family Planning. March 1, 2017, available online at: https://www.doh.wa.gov/Portals/1/Documents/Pubs/930-142-UnintendedPregnancyPrevention.pdf.

[23] Yazdkhasti, M., Pourreza, A., Pirak, A., Abdi, F., "Unintended Pregnancy and its Adverse Social and Economic Consequences on Health Systems: A Narrative Review Article," *Iranian Journal of Public Health*. January 2015. 44(1): 12-21.

[24] Sawhill, I., Karpilow, Q., Venator, J., "The Impact of Unintended Childbearing on Future Generations," Center on Children and Families at Brookings. September 2014, available online at: https://www.brookings.edu/wp-content/uploads/2016/06/12_impact_unintended_childbearing_future_sawhill.pdf

[25] Washington State Department of Health, "Washington State Title X Family Planning Network: Washington State Profile 2015-16," Washington State Family Planning Data. 2017, available online at: https://www.doh.wa.gov/Portals/1/Documents/Pubs/930-140-FamilyPlanningDataWashingtonState.pdf.

[26] § 28A.300.475 Revised Code of Washington, available online at: http://app.leg.wa.gov/RCW/default.aspx?cite=28A.300.475

[27] Centers of Disease Control & Prevention, "Addressing Chronic Disease through Community Health Workers," Centers for Disease Control and Prevention – Division for Heart Disease and Stroke Prevention. 2015, available online at: https://www.cdc.gov/dhdsp/docs/chw_brief.pdf.

[28] The Commonwealth of Massachusetts, "Massachusetts State Health Assessment – Chapter 7: Health Systems and Health Care Access," November 3, 2017, available online at: https://www.mass.gov/files/documents/2017/10/04/MDPH%202017%20SHA%20Chapter%207_0.pdf

[29] Osypuk, Theresa L. SD SM, Joshi, Pamela PhD MPP, Geronimo, Kimberly Research Associate, Acevedo-Garcia, Dolores PhD MPA-URP, "Do Social and Economic Policies Influence Health? A Review," *Current Epidemiology Reports*. September 1, 2014. 1(3): 149-164.

[30] Joint Center for Political and Economic Studies Health Policy Institute, "Race, Stress, and Social Support: Addressing the Crisis in Black Infant Mortality," Joint Center. 2007, available online at: http://jointcenter.org/sites/default/files/RACE%20AND%20STRESS%20FINAL%20-%2017%20pages.pdf.

[31] Felitti, V., Anda, R., Nordenberg, D., Williamson, D., Spitz, A., Edwards, V., Marks, J. "Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The adverse childhood experiences (ACE) study," *American Journal of Preventive Medicine* 14(4), (1998): 246-258.

[32] Hirst, K.P. and Moutier, C.Y. "Identification and Management of Postpartum Depression." *American Family Physician*. 82 (8), (2010): 926-933.

[33] Langan, R.C., and Goodbred, A.J. "Identification and Management of Postpartum Depression," *American Family Physician*. 93(10), (2016): 852-858.

[34] Earls, M. F., and Committee on Psychosocial Aspects of Child and Family Health. "Incorporating Recognition and Management of Perinatal and Postpartum Depression into Pediatric Practice," *Pediatrics*, 126(5), (2010): 1032-1039.

[35] American Academy of Family Physicians, "Recommended Curriculum Guidelines for Family Medicine Residents Lesbian, Gay, Bisexual, Transgender Health," Medical Education Residency Program. August 2016, available online at: www.aafp.org/dam/AAFP/documents/medical_education_residency/program_directors/Reprint289D_LGBT.pdf

[36] Dr. Robert Bree Collaborative, "LGBTQ Health Care Report and Recommendations," LGBTQ Health Care. September 2018, available online at: http://www.breecollaborative.org/wp-content/uploads/LGBTQ-Health-Care-Report-and-Recommendations01.pdf