**Rationale for the Project**

Poor birth outcomes lead to adverse impacts for women, children, and families -- some of which last a lifetime. These impacts strain our society and create higher health care costs. The U.S. is the only developed nation with a rising maternal mortality rate,¹ and severe maternal morbidities are increasing as well.² Infant mortality and preterm birth rates are also higher in the U.S. than in most developed countries.³ These unfortunate outcomes persist, even though the total amount spent on health care in the U.S. is greater than in any other country.⁴ Childbirth is one of the highest areas of hospitalization costs and represents a significant cost.⁵ Care is fragmented, inconsistent, and often initiated too late to make a difference.

Fortunately, the research shows that many poor birth outcomes can be avoided through timely, evidence-based practices. The Safe Deliveries Roadmap (Roadmap) is comprised of four “bundles” of evidence-based practice recommendations: pre-pregnancy, pregnancy, delivery, and two months following delivery.⁶ The bundles provide clear guidance to help providers screen, modify, and manage risks to promote optimal maternal and infant health outcomes. The Roadmap recommendations for the pregnancy phase, for example, have been shown to improve a number of perinatal outcomes such as congenital anomalies, preterm birth, and diabetes.

Published in the spring of 2015, the Roadmap was developed by a coalition of over 100 experts representing pediatrics and neonatology, obstetrics and gynecology, family practice, mental health, public/community health organizations, and state agencies, including the Health Care Authority. Although the publication of the Roadmap is a huge step forward in improving birth outcomes, we need a tool to facilitate and measure the implementation of its recommendations. It takes, on average, 17 years for a clinical best practice to be used after publication. The Washington Safe Deliveries Patient Assessment (Patient Assessment) is a tool to facilitate and expedite the adoption of the Roadmap’s evidence-based best practices.

With Medicaid paying for nearly half of all births in Washington State, the Patient Assessment provides a substantial opportunity to improve care and cut costs for the Medicaid population. The Roadmap asks providers to screen and counsel patients on key topics that need to be addressed for optional maternal and infant outcomes. Some of these evidence-based practices include healthy weight, preterm birth risk, injury prevention, breastfeeding, immunizations, mental health, substance use, toxic environmental exposures, injury prevention, violence and abuse, and other topics.

**Project Description**

*Which Medicaid Transformation Goals are supported by this project/intervention? Check box(es)*

- X Reduce avoidable use of intensive services
- X Improve population health, focused on prevention
- X Accelerate transition to value-based payment
- X Ensure Medicaid per-capita growth is below national trends
Safe Deliveries Patient Assessment

Which Transformation Project Domain(s) are involved? Check box(es)

X Health Systems Capacity Building
X Care Delivery Redesign
X Population Health Improvement – prevention activities

The target population for this project is all pregnant women in the state and their neonates.

This project will improve population health by promoting the use of the Roadmap’s evidence-based practices, thus preventing adverse outcomes -- including both physical and behavioral health outcomes -- for women and infants. In addition, this project will help integrate behavioral and physical health, and thus also serve Goal 1, Domain 2 – Care Delivery Redesign – by giving providers an incentive to screen women for behavioral health issues and refer them to services. This project would also form the basis for value-based payment, allowing the HCA to reward physicians who use the Patient Assessment to prevent adverse outcomes.

The Safe Deliveries Patient Assessment will improve clinical outcomes across the Roadmap’s evidence-based practices for pregnancy. The assessment directs physicians/providers to ask questions to identify areas that need intervention. The office can then monitor for higher risk areas and make the needed referrals. Best practice tools in the major areas will help the provider use the latest practices in their support of the women and baby.

Early identification and intervention will improve care and reduce cost. As an example, the role of obesity in adverse maternal-infant outcomes cannot be overstated. Obesity is associated with many maternal complications, including hypertension, preeclampsia, diabetes, hemorrhage, cesarean delivery and its complications, and uterine rupture.\(^vii\) It is also associated with adverse infant outcomes, such as neural tube defects unmitigated by folic acid use,\(^vii\) autism,\(^ix\) and inadequate ultrasounds leading to failure to identify risks.\(^x\)

The Patient Assessment will help reduce health disparities by standardizing care across the population and by improving population health overall. U.S. women of African heritage are three to four times more likely to die in childbirth than women of all other ethnic groups.\(^xi\) Moreover, the infant mortality rate for babies born to American Indian/Alaska Native mothers in our state is over twice that of those born to white mothers.\(^xii\) The Patient Assessment will help ensure that all patients receive the best care possible.

The Patient Assessment is directly linked to the Safe Deliveries Roadmap, a CMS Partnership for Patients initiative. The Patient Assessment also complements programs developed as a result of global Medicaid waivers in other states. For example, Oregon’s largest Coordinated Care Organization, Health Share of Oregon, has developed the Oregon Family Well-being Assessment, which uses a format similar to the one we envision for the Patient Assessment. Both Oregon and New York have used Medicaid transformation dollars for projects to prevent preterm births and promote maternal/infant mental and physical health. A number of other states, including California, reimburse providers for using a patient assessment with all pregnant women.

The organizational infrastructure to implement this project already exists through the WSHA Patient Safety Committee and Safe Deliveries Roadmap Steering Committee, which includes the Washington State Department of Health, the Health Care Authority, the March of Dimes, the Foundation for Health Care Quality, (OB COAP), WSHA, and other organizations (and could also include an ACH representation in the future). Additional partners will include the Washington State Medical Association (WSMA), the Medicaid health plans, the ACHs, and numerous community agencies. This program will work best if sustained at the community level, ideally through the ACHs. Funding would be given to the ACHs for their work on this.

Core Investment Components

Describe proposed activities and cost estimates for the project.

1. Oversight group. The oversight group is the WSHA Patient Safety Committee. This committee is composed of CEOs, medical officers, quality leaders, payors, and government agency representatives. Focus is on the
achievement of milestones, participation rates, and other oversight actions. This group also works on engagement of hospital and physician leadership. ($20,000 annually)

2. **Safe Deliveries Roadmap Steering Committee.** This group, described above, will look at the details of what is being implemented to ensure there is an improvement in clinical care and help make course corrections. ($20,000 annually for staffing and organizational support)

3. **Partnership with National Experts such as Dr. Elliott Main.** The work of Elliott Main in California represents the national best practice for preventing adverse outcomes for moms and babies. Dr. Main has been working with WSHA on other parts of the Safe Deliveries Roadmap. Local physician experts will also be engaged to help implement this project. ($200,000 annually for support)

4. **Safe Deliveries Patient Assessment registry.** A registry for the assessments will be created, which can be updated by women before they arrive at their appointment, pushed to providers for easy access, and shared among those providing care. There are several possibilities for vendors. We will consider the systems being developed in California and Oregon. This work would also include an IT professional to assist hospitals, clinics, and other organizations in the integration and collection of information provided by patients into the data system. A paper assessment will also be available for patients as an additional option. Needed services which cannot be provided because of lack of system capacity for Medicaid patients will be highlighted and a report created to aggregate the unmet needs. This information will be shared with the ACHs and examined at the state level. ($250,000 to create system and link to medical records annually)

5. **Communication skill-building for providers.** Administering and using the survey to improve skills is an important part of the plan. Educational materials including toolkits will be developed to support use of the survey and help physicians understand the best practice interventions when a patient need is identified. ($200,000 for development and staff support)

6. **Safe Deliveries Patient Assessment.** Using the knowledge gained in California and Oregon as well as the best practices identified in the Roadmap, an assessment will be developed. The survey will be rolled out to all physician/provider practices interested, with a focus on those with 50 physicians or more that deliver these types of services. ($100,000 annually for staffing)

7. **Best Practice Safe Tables.** “Safe Table” trainings are designed to share best practices and to review the data from each community on progress. The Safe Tables will also be used to educate providers on how to administer and act on the assessments. ($75,000 annually)

8. **Support.** A program manager will lead the program and its implementation team. This person will support ACH and communities in implementation. A physician advisor will help design and provide advice on the physician education and integration with workflow of office practices. An executive assistant will help provide administrative support. $50,000 will be given to each ACH as they work to engage communities in the Safe Deliveries Patient assessment. Focus will be on community engagement and education of providers in their community. ($1.5 million annually)

9. **Materials.** Creation of materials, or utilization of existing materials, to support the community engagement. ($100,000)

10. **Support to Providers.** Providers will be reimbursed for every patient with an assessment completed according to the guidelines. ($5 million annually)

**Annual Budget:** $7.5 million. In subsequent years, the work will be sustained by reducing the stipend to providers. How long it will take to fully implement the project within a region where you expect it will have to be phased in. We anticipate that most hospitals and clinics will be hiring and deploying advance care planning coordinators within a one-year period. We estimate it will take five years to fully implement this advance care planning model in communities, health systems, hospitals and medical groups throughout the state.

The financial return on investment (ROI) opportunity, including estimated amounts and associated ROI timeline: Savings will be from a reduction in maternal/infant complications across the topics covered by the Roadmap. The return of three times the investment is expected, based on the evidence.
Key outcome measures are as follows: Cost measures from the Healthier Washington Common Core Measure Set include:

- Maternal mortality
- Infant mortality
- Preterm birth
- Low birth weight; and
- Cesarean section births.

Benchmarks for these measures have been established by the Healthier Washington Common Core Measure Set.

Key process measures are as follows: The number of patient assessments completed, the number of counseling sessions conducted, and the number of referrals made. The Safe Deliveries Roadmap Steering Committee would provide oversight and development of the key process measure benchmarks.

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6 The research and evidence to support each of the Roadmap’s 159 recommendations can be found in the endnotes to the four bundles of best practices at http://www.wsha.org/quality-safety/projects/safe-deliveries/. (Scroll down to “strategies and tools,” and click on each of the bundles to see the recommendations and citations to the research.)


10 Dr. Loren Molina presentation to Safe Deliveries Roadmap Web Conference (2015)

11 Dr. Elliott Main, “National Efforts for Improving Maternity Care,” Presentation to WSHA Safe Table (2015)


13 Examples of data substantiating this ROI estimate include: The average cost for healthy baby is $5,085; whereas the average cost for premature baby is $55,393 (March of Dimes (2014)). Developmental disabilities such as cerebral palsy result in direct and indirect economic costs that can exceed $1 million over a given child’s lifetime. (Centers for Disease Control and Prevention, Economic costs associated with mental retardation, cerebral palsy, hearing loss, and vision impairment MMWR 2004;53:57–9. (2003)). Several studies have reported positive financial returns to managed care organizations from prenatal or perinatal interventions targeted at high-risk pregnant women. For example, a New York study showed that cost savings from reduced NICU (neonatal intensive care unit) admissions were more than twice as great as the costs of the intervention. (Hawkins MR. The impact of a high-risk disease management program on perinatal outcomes in a managed care organization. The Case Manager, 16(4):59-63. (2005)).