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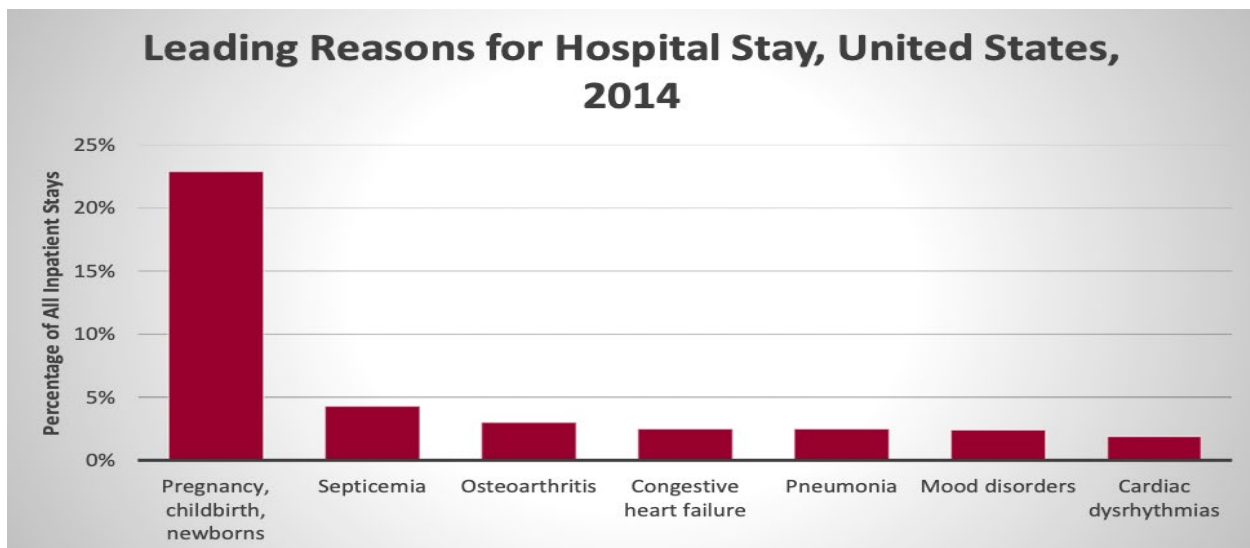
## Building Maternity Bundles

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Lessons Learned

## Executive Summary

Maternity care is a major segment of the health care system. Pregnancy, childbirth and newborn care make up nearly a quarter of all hospital stays, exceeding any other condition by a significant margin.<sup>1</sup> For large employers, maternity care is about 20% of their health care spend and generally one of the top three expenditure categories.<sup>2</sup>



The U.S. has poorer maternal health outcomes than other developed nations, with women of color disproportionately affected.<sup>3</sup> Anxiety and depression during pregnancy are underdiagnosed and undertreated,<sup>4</sup> yet overall costs are rising. These and other shortcomings in maternity care in this country are well documented and provide a multitude of opportunities for both cost and quality improvement.<sup>5</sup>

Self-insured employers who provide insurance coverage for their employees depend on intermediaries to contract and manage the network of hospitals and doctors accessed by their covered lives, including the development of alternative payment methods. The development of episode payment models, or “bundles,” has proven to be a powerful method for encouraging greater use of high-value services and discouraging use of low-value services. Self-insured employers appreciate the predictability of bundled payments because they can budget with greater accuracy. However, while joint replacement bundles are becoming somewhat common, maternity bundles are rare.

Developing a bundle for maternity care, which spans a considerable period and covers a wide array of services and providers, is complex. It must involve clinical, financial and operational staff from both the health system and the health plan. However, the most

important element is a motivated employer sponsor with a clear vision for the purpose or objectives of the maternity bundle. The process must overcome long-standing organizational, structural and financial infrastructures, such as a fee-for-service system of payment, and find ways to educate and engage the pregnant woman and her family. A successful maternity bundle holds promise for reducing the over-medicalization that is prominent in maternity care by offering women\* choice in care team and care location early on in the pregnancy.

## Background

The maternity care provided from pre-pregnancy through birth, and including the postpartum/newborn period, affects most of our society; no other part of our health care system has a greater effect on the health of our population. Reliably delivering better care is a significant opportunity to affect a new baby's health and wellness for a lifetime. Several studies point to long-term positive and negative effects of care during pregnancy, labor and delivery and the postpartum period.<sup>6</sup> The quality of care also affects the shorter- and longer-term health and well-being of the women who give birth.<sup>7</sup>

In addition, most women work until late in their pregnancy and return to work soon after birth, implying that their prenatal and postpartum care occur while they are working.<sup>8</sup> This means that a better maternity experience leads to better overall health and wellness in the workplace. Yet, the quality of maternity care in the United States is not where it should be. The United States ranks 33<sup>rd</sup> among world nations on the Save the Children's Mothers Index.<sup>9</sup>

Worse, some trends in the U.S. are headed in the wrong direction. Pregnancy-related deaths rose from 7.2 per 100,000 live births in 1987 to 16.9 per 100,000 population in year 2016.<sup>10</sup> Further, the distribution of pregnancy-related deaths demonstrates that improvements are needed across the continuum of care: about one-third occur during pregnancy, one-third on the day of birth through the first week and one-third from day seven through the first year postpartum.<sup>11</sup> Black, American Indian and Alaska Native women are two to three times more likely to die from pregnancy-related causes than

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\* We recognize that not all people who become pregnant and give birth identify as women or with the term "maternal."

white women – and this disparity increases with age.<sup>12</sup> Rising rates of preterm birth and low birth weight are additional indications that improvements in maternal care are warranted.<sup>13</sup>

However, there is a bright spot. Recognition of the steep rise in the rate of cesarean births between 1990 and 2010 was a call to action for employers and health care leaders in California. The result of many efforts, including those driven by PBGH<sup>14</sup> partnering with large employers, is a reduced rate of NTSV (low-risk, first time mom) cesarean births in California dropping from 26.6% in 2013 to 22.7% in 2020,<sup>15</sup> which is below the Healthy People 2020 target for the NTSV C-section rate of 23.9%.

## The Bundled Payment Projects

Having made significant progress over several years in reversing the negative trend in cesarean births, members of the Purchaser Business Group on Health (PBGH) continue to seek ways to improve maternity outcomes. Qualcomm, a large employer in the San Diego market, partnered with PBGH to enhance the patient experience by focusing on maternal mental health and increasing the availability of midwifery.

An emphasis on maternal mental health disorders is important because it is the most common medical complication during and after childbirth, affecting one in seven pregnant and postpartum women in the U.S., and one in six in California.<sup>16</sup> When following the mother-child pair from pregnancy through five years postpartum, the estimated cost is \$14.2 billion for births in 2017, or an average of \$32,000 for every mother-child pair affected but not treated.<sup>17</sup>

Promoting value-based care also led to an interest in fostering the use of midwives. Studies have shown that integrating midwives into the care team increases the rate of vaginal births, reduces obstetric interventions and reduces the rate of adverse neonatal outcomes.<sup>18 19</sup> A recent California survey indicated a growing number of women would choose to use a midwife if available.<sup>20</sup>

PBGH was a strategic and technical partner driving this project with Qualcomm's primary health system, Scripps Health, and United Healthcare to expand their maternity payment model beyond the traditional global professional fee and the existing blended case rate for vaginal and C-section births.

The work included bundling all prenatal services, labor and delivery and postpartum care for six months after delivery into a bundled value-based prospective payment to:

- improve the entire experience for the mother-to-be and family members, including broadening choice in their care team and care location,
- provide latitude for care teams at Scripps to be innovative to deliver the highest quality care and best possible outcome,
- expand the availability of certified nurse midwives,
- identify other ways to “de-medicalize” the entire experience, and
- encourage early detection and treatment of postpartum depression and other perinatal mood and anxiety disorders challenging new mothers.

Throughout 2020, a team of representatives from PBGH, Qualcomm, Scripps and United Healthcare met weekly to work out the details of this new, complex and innovative bundle. Large team meetings, as well as smaller work groups set up to tackle specific issues, were led and facilitated by PBGH staff. The expanded maternity bundle went live January 1, 2021.

PBGH continues to work with purchasers to impact their maternity marketplace. Maternity care is an essential, non-elective service, and providing families with high-value options is critical. Implementing a maternity bundle not only encourages provider innovation and early screening and treatment for potential complications, it also creates a predictable price for employers, individuals and families.

PBGH urges our employer and purchaser members to evaluate their networks and ensure women have access to high-value care such as midwives, birth centers and doulas. We have developed [Employer Strategies to Promote High Value Equitable Maternity Care](#), a tool which identifies strategies for purchasers to impact their maternity marketplace, including employee education, network management, benefit design and contracting strategies such as bundled payment.

## Issues to Addressed in the Development of a Maternity Bundle

Developing a comprehensive maternity bundle requires addressing foundational strategic and directional considerations, as well as challenging process and technical issues, such as:

- delineating the patient population,

- establishing the bundle duration,
- defining the bundle services to include/exclude and establishing contingency pathways for women not completing the full bundle experience due to employment termination or pregnancy complications,
- establishing an enrollment process for women to participate in the bundle,
- adjusting the claims and payment flow logistics to accommodate the bundle,
- agreeing on quality metrics to measure impact of the bundle, and
- educating and engaging participants.

## Lessons Learned

### Organization

**Begin by setting clear goals for the bundle.** To keep conversations on track it is important to establish and communicate clear goals. This may seem obvious, but having outlined the goals at the beginning of the process enables maternity bundle projects to stay on track when they could easily derail. These goals need to be ambitious and go beyond the existing quality scores such as C-section rates, for example improving patient experience and outcomes through increased use of midwives and improved mental health screening.

**Getting the right people from the health system and health plan involved takes time.** Stakeholder engagement that involves the most appropriate representation from the health system and health plan can involve trial and error. First, the right departments need to be identified and included. The development of these bundles involved clinical, financial, operational, data analytic, quality and network management staff. In addition, the representatives from those functional areas need to understand the purpose of the bundle. Team members may need education before fully grasping the importance of the objective.

**Those at the table must be positioned to influence** their respective organizations to move out of their organizational comfort zone. Building a new bundle means doing things differently, and change can be difficult. Finding people who not only know their functional area but can also serve as change agents is critical.

**Health systems don't all have the same capabilities.** Some health systems have integrated their clinical and financial systems while others are challenged by this. For a health system to fully manage patient enrollment and disenrollment in a bundle and to

appropriately accept and distribute the payment, their clinical and financial systems must be well integrated. Assessing that capability early on will help the technical subgroup start off on the right foot.

**Be mindful of legal and regulatory requirements.** Hospital and professional services are usually organized in separate corporate entities that may not have the required licensure from appropriate state governing bodies and therefore may not be able to accept financial risk. It is important to be mindful of both national and local legal and regulatory requirements for accepting the risk of a bundle, and to ensure the appropriate representatives are involved as early as possible.

### Program Structure

**Discuss specific quality metrics early and often.** Establishing how the success of the bundle will be measured is integral to its development. In the San Diego project, the employer chose to focus on increasing use of midwives, increasing mental health screening and treatment, improving newborn health and enhancing the mothers' experience.

**Don't get distracted with concerns about high-cost outliers.** A bundled price is built on a bell curve. Some cases will be low cost, and some will be high cost. The goal is to establish a fair fixed price and then work to reduce both the variation and the total cost. When team members get overly concerned with outlier cases, it is important to have the data analytics team show the frequency (or infrequency) of the occurrence and put the price impact into perspective.

**Establish clear parameters for "breaking" the bundle.** While not every scenario can be anticipated, it is essential to delineate the circumstances that "break the bundle", i.e. disengage the bundle price. Establishing these parameters will clearly govern specific cases and also illustrates the general philosophy of the bundle. Maternity is a particularly long and complex bundle. From the date of enrollment until the six-month postpartum mark can be up to 15 months. During that time people can move, switch jobs or change their health plan coverage. Serious accidents or other complications can arise. Agreement between parties regarding what services are in the bundle and what breaks the bundle is an important action step.

**Carefully evaluate the pros and cons of a fixed payment versus a risk-adjusted payment.** These two bundled payment approaches drive an array of technical and logistical decisions. Understanding the impact of each will help the group come to

consensus on which approach to take. In the San Diego project, the decision was made to establish a fixed payment. This was done for administrative simplification, a desire to encourage use of high-value services and to spark innovation. Risk adjustment might be chosen when the covered population is small and underlying social determinants of health or co-morbidities are highly variable.

## Member Journey

**Effective communication is key to launching a bundle.** When introducing change, even beneficial change, the need for effective communication with beneficiaries cannot be over emphasized. Education starts with the employer. The benefits team needs to invest significant time and effort to make sure the program is clearly explained to employees and family members via multiple communication channels.

**Invest in technology, but know it is not the answer to everything.** There are many smart phone apps on the market that can help engage mothers-to-be and new moms. They can be used to provide “just-in-time” educational information, appointment reminders and ease patient anxiety by providing answers to frequently asked questions. Many apps can also be customized to provide employer-specific benefit information. Some can administer appropriately timed patient satisfaction surveys. These are helpful and sophisticated tools, but they do not address payment reform.

**Leverage health system and other vendor resources to assist moms with navigation.** Women access information about their delivery options through multiple sources. Coordinating steering to the bundle and engagement in the program through multiple touchpoints is highly desirable. The employer should inventory opportunities with various partners and prioritize vendor coordination.

**Reducing or eliminating the EOB onslaught is a huge improvement in the patient experience.** The usual maternity experience results in a mountain of medical bills and their accompanying explanation of benefits (EOBs). The ability to reduce the number of bills and EOBs sent to the member is a member satisfaction element with a bundle.

## Quality Improvement

**Take advantage of the bundle to improve quality of care.** The primary driver in extending the maternity bundle to six-months postpartum was to address depression and anxiety issues common with both pregnant and postpartum women. The fixed-price bundle also encourages the promotion of vaginal birth when appropriate, as opposed to



C-sections. In addition, it encourages the inclusion of certified nurse midwives in the care team, as well as other innovations that reduce over-medicalization of maternity care. Bundles are quality improvement projects supported by payment reform. Take full advantage of the opportunity to make a measurable difference in patient outcomes and satisfaction.

## Looking to the Future

In 2022 and beyond, PBGH is expanding our Transform Maternity Care program to focus on midwifery in birth centers outside of hospitals. Birth centers offer a safe, high-quality and lower-cost option<sup>21</sup> for low-risk childbirth and maternity services. Many health systems have developed a “birthing center” for their low-risk patients, but these designated areas do not typically include the quality and patient experience benefits of midwifery-led care. Hospital-based birth centers also don’t reduce cost of care because the high cost of the hospital still applies. PBGH is exploring the design of affiliated hospital-birth center models<sup>22</sup> that are enabled by value-based payments such as a maternity bundle. PBGH employer members have expressed interest in this innovative model of care, and with their influence, other necessary stakeholders can be engaged.

PBGH is driven to systemically change the maternity process, which will demand coordination across public and private payer groups because care is transformed at the physician level, without regard for payer specificity. Moreover, given that Medicaid pays for half of the births in America, meaningful systemwide change at scale without addressing the needs of both commercial and Medicaid maternity patients is not feasible.

The poor maternal outcomes in this country mean we must rethink maternity care. Moving from fee-for-service to value-based payment can enable provider flexibility and innovation and encourage the delivery of patient-centered care with improved results for all.

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<sup>2</sup> Carlson, Kari, MD. “Uncovering the Unpredictable Costs of Maternity Care.” *Kaiser Permanente Business*. March 18, 2019. <https://business.kaiserpermanente.org/insights/maternity/care-plans>

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<sup>3</sup> <https://www.cdc.gov/media/releases/2019/p0905-racial-ethnic-disparities-pregnancy-deaths.html>

<sup>4</sup> Luca, D.L., et al, “Societal Costs of Untreated Perinatal Mood and Anxiety Disorders,” *Mathematica*, Issue Brief, April 2019. <https://www.mathematica.org/our-publications-and-findings/publications/societal-costs-of-untreated-perinatal-mood-and-anxiety-disorders-in-the-united-states>

<sup>5</sup> Tikkanen, R., et al, “Maternal Mortality and Maternity Care in the United States Compared to 10 Other Developed Countries,” *Commonwealth Fund*, Nov. 18, 2020, <https://www.commonwealthfund.org/publications/issue-briefs/2020/nov/maternal-mortality-maternity-care-us-compared-10-countries>

<sup>6</sup> Kermack, A., Van Rijn, B., Houghton, F., Calder, P., Cameron, I., & Macklon, N. (2015). The ‘developmental origins’ hypothesis: Relevance to the obstetrician and gynecologist. *Journal of Developmental Origins of Health and Disease*, 6(5), 415-424. <https://www.ncbi.nlm.nih.gov/pubmed/26347389>; Hanson, M. A. & Gluckman, P. D. (2014, October) Early developmental conditioning of later health and disease: Physiology or pathophysiology? *Physiological Reviews* 94, 1027–1076. <https://www.physiology.org/doi/full/10.1152/physrev.00029.2013>

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<sup>9</sup> Save the Children. (2016). *The Urban Disadvantage: State of the World’s Mothers 2015*. Fairfield, CT: Save the Children. <https://www.savethechildren.org/content/dam/usa/reports/advocacy/sowm/sowm-2015.pdf>

<sup>10</sup> Centers for Disease Control and Prevention, Division of Reproductive Health. (2019, October 10). *Pregnancy Mortality Surveillance System*. <https://www.cdc.gov/reproductivehealth/maternal-mortality/pregnancy-mortality-surveillance-system.htm>

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