THE COST OF HAVING A BABY IN THE UNITED STATES
Executive Summary

TRUVEN HEALTH ANALYTICS MARKETSCAN® STUDY

Prepared for:

Childbirth Connection
Catalyst for Payment Reform
Center for Healthcare Quality and Payment Reform

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TRUVEN
HEALTH ANALYTICS™

FOREWORD

Better care, better outcomes, and lower costs in health care are all possible through use of innovative delivery systems, supported by value-based payment systems and effective performance measurement. One of the greatest opportunities for improving health care value is in maternity care, which impacts everyone at the beginning of life and about 85% of women during one or more episodes of care. Most childbearing women are healthy, have healthy fetuses, and have reason to expect an uncomplicated birth, yet routine maternity care is technology-intensive and expensive: combined maternal and newborn care is the most common and costly type of hospital care for all payers, private payers, and Medicaid. Childbirth Connection, Catalyst for Payment Reform, and the Center for Healthcare Quality and Payment Reform commissioned this report to focus the attention of all stakeholders on the need to better align maternity care payment and quality.

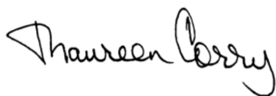
Significant improvements in quality and savings in costs can be achieved by reducing unwarranted practice variation and the overuse of some interventions and underuse of others. High-performing maternity care providers and settings and the women and families they serve demonstrate the potential for dramatic improvement in care, outcomes, and value relative to usual care and population norms. Childbirth Connection's multi-stakeholder, deliberative *Transforming Maternity Care* project developed two direct-setting consensus reports: "2020 Vision for a High-Quality, High-Value Maternity Care System" and a "Blueprint for Action" to chart the path toward such a system. From its inception, the project's key informants and Steering Committee members understood that a multi-faceted strategy, including payment reform, changes in benefit structures, public education, and provider engagement, is essential for successfully driving needed improvement. This new report on the Cost of Having a Baby in the United States" clarifies that significant savings can be achieved by advancing priority Blueprint recommendations.

Catalyst for Payment Reform (CPR), a nationwide nonprofit coalition of large national employers and public payers, including several state Medicaid agencies, understands that maternity care is in need of significant payment reform, both to remove the perverse incentives for unnecessary intervention in labor and delivery and to increase incentives for better adherence to rigorous clinical guidelines. To help purchasers work with health plans towards this goal, CPR created its Maternity Care Payment Reform Toolkit, available to all stakeholders

The Center for Healthcare Quality and Payment Reform (CHQPR) has been working since 2009 to educate physicians, hospitals, health plans, employers, consumers, and policy makers about the barriers to higher quality, more affordable health care created by current health care payment and delivery systems and ways to overcome those barriers. CHQPR understands that one of the best opportunities for making health care more affordable and improving the health status of the public is through improving the way maternity care is delivered in America. More information and resources about ways to improve payment and delivery of maternity care are available on the CHQPR website.

The MarketScan Commercial and Medicaid databases provided a unique opportunity to understand levels of charges and payments for maternal and newborn care in 2010. This report offers detailed breakdowns by Commercial and Medicaid payers, primary insurer versus secondary insurer and out-of-pocket payment sources, vaginal and cesarean birth, type of service, and phase of care. Special analyses investigate variation in maternal charges and payments across five selected states, costs of care for newborns with stays in neonatal intensive care units, and the increase in payments for maternal care from 2004 to 2010.

We hope you find this information helpful, and we invite you to join us in working to improve how we pay for and deliver maternity care in the United States.



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EXECUTIVE SUMMARY

Childbirth is a major life and population event. In the United States, about four million women gave birth each year. Although childbirth is a common occurrence that has great impact on the healthcare system, our knowledge regarding the cost of childbirth is limited. This study updated a 2007 Thomson Healthcare report of maternity costs using the mothers' medical and drug claim records[1] and estimated the costs of the first three months of a newborn's life with newborn claim records (newborn costs) identified in the *MarketScan®* Commercial and Medicaid databases.

In this study, "cost" is measured by the amount that employers (for beneficiaries of Commercial, employer-sponsored insurance) or Medicaid managed care plans and Medicaid programs (for Medicaid beneficiaries) and others pay hospitals, clinicians, and other service providers, i.e., the cost of care to the organizations and individuals that *pay* for the care, not the costs incurred by organizations and individuals who provide care. The latter may be less or more than the former, but data are not available to determine which is the case. Actual payments for maternity and other health care are typically discounted considerably relative to the amount charged by the various service providers.

Babies are born either vaginally or by cesarean section. The study looked separately at costs for each of these methods of birth, since past studies have shown (and this study confirmed) that the costs differ significantly between the two methods. Since there is wide variation in the rate of cesarean section across states, across regions within states, and across hospitals and physicians within a region, it is more meaningful to describe the costs of each delivery method separately than to provide a single estimate of the cost of birth. Further analyses were conducted for source of payment (including out-of-pocket payments), type of service, phase of care, cost variation across selected states (maternal only), and neonatal intensive care unit costs.

TOTAL PAYMENTS FOR MATERNAL AND NEWBORN CARE

The study found that among women and newborns with employer-provided Commercial health insurance, average total charges for care with vaginal and cesarean births were $32,093 and $51,125, respectively. Average total Commercial insurer payments for all maternal and newborn care with vaginal and cesarean childbirths were $18,329 and $27,866, respectively. In Medicaid, average total maternal and newborn care charges for care with vaginal and cesarean births were $29,800 and $50,373, respectively. Medicaid payments for all maternal and newborn care involving vaginal and cesarean childbirths were $9,131 and $13,590, respectively. Both Commercial and Medicaid payers paid approximately 50% more for cesarean than vaginal births. For both types of birth, Commercial payers paid approximately 100% more than Medicaid.

The study examined the source of payments, which were the primary payer (employer-provided Commercial insurance or Medicaid), a secondary insurer such as a union, and out-of-pocket costs. Among total maternal-newborn payments for beneficiaries with Commercial insurance and vaginal births, on average the primary insurer paid the largest proportion of costs ($15,931 or 87%), out-of-pocket costs averaged $2,244 (12%), and secondary insurers covered a small portion ($153 or 1%). Among total maternal-newborn payments for beneficiaries with Commercial insurance and cesarean births, on average the primary insurer paid $24,949 (90%), out-of-pocket costs were $2,669 (10%), and secondary insurers paid $267 (1%) (numbers exceed 100% due to rounding). For both vaginal and cesarean births covered by Medicaid, Medicaid paid nearly all costs for vaginal ($9,002 or 99%) and cesarean ($13,327 or 98%) births.

Among total average Commercial payments for maternal-newborn care with vaginal births ($18,329), 59% went to facilities and 25% to maternity care providers, followed in descending order by payments for anesthesiology, radiology/imaging, laboratory, and pharmacy services. Among total average Commercial payments for maternal-newborn care with cesarean births ($27,866), 66% went to facilities and 21% to maternity care providers, followed in descending order by payments for anesthesiology, radiology/imaging, pharmacy, and laboratory services. Among total average Medicaid payments for maternal-newborn care with vaginal births ($9,131), 59% went to facilities and 23% to maternity care providers, while among total Medicaid payments for cesarean births ($13,590), 65% went to facilities and 20% to maternity care providers. For both types of birth, remaining Medicaid payments covered in descending order pharmacy, radiology/imaging, laboratory, and anesthesia services.

When examined by phase of care — prenatal, the intrapartum hospital stay for both women and newborns, and the care provided to them after the discharge from the birth hospitalization — 2010 payments were heavily concentrated in the intrapartum hospital stay. Our figures slightly overestimate payments for the intrapartum phase and slightly underestimate payments for care after discharge, as modest newborn payments for care after discharge are included in the intrapartum

[1] Thomson Healthcare. *The Healthcare Costs of Having a Baby*. May 2007. http://www.kff.org/womenshealth/upload/whp061207othc.pdf.

phase figures in this report. Commercially-insured intrapartum care involved 81% of maternal-newborn payments in vaginal births and 86% of maternal-newborn payments in cesarean births. In Medicaid, intrapartum payments were 70% of payments for vaginal births and 76% of payments for cesarean births.

PAYMENTS FOR MATERNAL CARE

The study separately analyzed maternal payments for maternity care and found that among women with employer-provided Commercial insurance, average payments in 2010 for all maternal care with vaginal and cesarean childbirths were $12,520 and $16,673, respectively. Since 2004, when a similar analysis was carried out, Commercial payments for maternal care with both vaginal and cesarean births increased by over 50%. In Medicaid, payments for all maternal care with vaginal and cesarean childbirths were $6,117 and $7,983, respectively. (No comparable 2004 Medicaid analysis is available.)

The study analyzed average maternal payments by payment source: the Commercial insurer or Medicaid, out-of-pocket payments, and payments from another party such as a union. In women with employer-provided Commercial insurance, the insurer covered the great majority of payments for vaginal (86%) and cesarean (87%) births, Nonetheless, women paid $1,686 and $1,948 for vaginal and cesarean births, respectively, a nearly fourfold increase in out-of-pocket costs in both cases since 2004. Medicaid paid virtually all maternal care payments for women covered by Medicaid.

A further analysis explored total maternal payments by type of service. For women with employer-provided Commercial insurance and vaginal births, the most costly types of services were facility (54% of maternal payments) and maternity care provider (23%) payments, with smaller percentages for, in descending order, anesthesiology, radiology/imaging, laboratory, and pharmacy services. For women with employer-provided Commercial insurance and cesarean births, total costs were higher, with a larger proportion of payments going to facilities (60%), a smaller proportion to maternity care providers (20%), and remaining payments, in order, for anesthesiology, radiology/imaging, pharmacy, and laboratory. For women with Medicaid coverage and vaginal births, facility (51%) and maternity care provider (24%) payments also predominated, followed in order by pharmacy, radiology/imaging, laboratory, and anesthesiology payments. For Medicaid beneficiaries with cesarean births, payments went in descending order to facility (55%) and maternity care provider (21%), followed by pharmacy, radiology/imaging, laboratory, and anesthesiology fees.

Maternal payments can be divided into three phases: payments for a woman's prenatal care (before labor and birth processes begin), payments for a woman's intrapartum care (labor, birth, and the rest of her hospital stay), and payments for a woman's postpartum care after hospital discharge. The analysis found:

- Maternal payments in 2010 were concentrated in the intrapartum hospital stay for Commercial beneficiaries and, to a lesser extent, for Medicaid beneficiaries. Average Commercial intrapartum payments were $9,048 for vaginal births (72% of all maternal care payments) and $12,739 for cesarean births (76% of maternal payments). Average Medicaid intrapartum payments were $3,347 for vaginal births (55% of maternal payments) and $4,655 for cesarean births (58% of maternal payments).
- Average maternal prenatal payments in 2010 far exceeded average postpartum payments. Among Commercial vaginal births, prenatal payments were $3,180 (25% of all maternal payments), in contrast to postpartum payments of $293 (2% of maternal payments). Among Commercial cesarean births, prenatal payments were $3,580 (21% of maternal payments), in contrast to postpartum payments of $354 (2% of maternal payments). Among Medicaid vaginal births, prenatal payments were $2,405 (39% of maternal costs), in contrast to postpartum payments of $365 (6% of maternal costs). Among Medicaid cesarean births, prenatal payments were $2,859 (36% of maternal payments), in contrast to postpartum payments of $469 (6% of maternal payments).

An analysis of variation in five selected states in average total maternal care costs for women with employer-provided Commercial insurance in 2010 found a large spread:

- In Louisiana, maternal payments were $10,318 for vaginal births and $13,943 for cesarean births.
- In Illinois, maternal payments were $11,692 for vaginal births and $15,602 for cesarean births.
- In Minnesota, maternal payments were $12,130 for vaginal births and $17,109 for cesarean births.
- In California, maternal payments were $15,259 for vaginal births and $21,307 for cesarean births.
- In Massachusetts, maternal payments were $16,888 for vaginal births and $20,620 for cesarean births.

PAYMENTS FOR NEWBORN CARE

The study separately analyzed newborn care payments, measured as payments for the hospital stay plus subsequent care to age three months. Total newborn Commercial payments were $5,809 for vaginal births and $11,193 for cesarean births. Total newborn Medicaid payments were $3,014 for vaginal births and $5,607 for cesarean births.

The study analyzed average newborn payments by payment source: the Commercial insurer or Medicaid, out-of-pocket payments, and a supplementary insurer. In newborns with employer-provided Commercial insurance, the insurer covered the great majority of payments for vaginal (90%) and cesarean (93%) births. Average out-of-pocket costs for newborn care were $558 and $721 for vaginal and cesarean births, respectively. Medicaid paid virtually all newborn care payments for newborns covered by Medicaid: 98% of vaginal birth payments and 97% of cesarean birth payments.

When analyzed by type of service, virtually all newborn payments were for facilities and professional fees. 2010 payments for newborns with employer-provided Commercial insurance and vaginal births were for facility (71%) and professional (28%) fees, with less than 2% on average for combined radiology/imaging, pharmacy, and laboratory fees. Commercial payments for newborns with cesarean births were for facility (75%) and professional (23%) fees, with 1% for combined pharmacy, radiology/imaging, and laboratory fees. Medicaid payments for newborns with vaginal births were for facility (77%) and professional (20%) fees, with less than 3% for combined pharmacy, radiology/imaging, and laboratory fees. Medicaid payments for newborns with cesarean births were for facility (79%) and professional (19%) fees, with less than 3% for combined pharmacy, radiology/imaging, and laboratory fees.

While we do not provide separate figures for newborn hospital and ambulatory costs, as with maternal payments those newborn payments are concentrated in the hospital phase of care.

Predictably, an analysis of newborns with stays in neonatal intensive care units (NICUs) found steeply increased average payment levels relative to payments for all newborns. For newborns with Commercial insurance, vaginal births, and NICU care, insurers paid $30,875, out-of-pocket costs were $1,241, and others (e.g., unions) paid $468. For similar newborns with cesarean births, insurers paid $45,496, out-of-pocket costs were $1,351, and others paid $735. Medicaid paid $13,875 for newborns with vaginal births and NICU care and $19,971 for newborns with cesarean births and NICU care. Modest other sources of payment for Medicaid were not separately identified.

KEY FINDINGS

The *MarketScan* databases provide a unique opportunity to understand recent, 2010, average payments for maternal and newborn care by Commercial insurers and Medicaid. Key findings are as follows:

- Average total payments for maternal and newborn care with cesarean births were about 50% higher than average payments with vaginal births for both Commercial payers ($27,866 vs. $18,329) and Medicaid ($13,590 vs. $9,131).
- Commercial payers paid an extra $1,464 to clinicians and $7,518 to facilities for cesarean versus vaginal births.
- Average total payments for maternal-newborn care by Commercial payers were about 100% higher than average Medicaid payments for both vaginal births ($18,239 vs. $9,131) and cesarean births ($27,866 vs. $13,590).
- Across the prenatal, childbirth hospitalization, and postpartum phases of care, average inpatient maternal-newborn payments predominated (from 70% to 86% of all payments) for both types of payers and both types of birth.
- Across the prenatal, childbirth hospitalization, and postpartum phases of care, average maternal payments to maternity care providers were concentrated in the hospitalization phase (from 70% to 84% of all maternity care provider payments, depending on type of payer and type of birth).
- Facility fees (from 59% to 66% on average) and professional service fees (from 20% to 25%) predominated over anesthesiology, laboratory, radiology, and pharmacy fees for both types of payers and both types of birth.
- For both Commercial and Medicaid payers, average total for maternal care payments were about twice as great as average total newborn care payments with vaginal births, and between 40% and 50% higher with cesarean births.
- Across five selected states, average Commercial insurer payments for all maternal care ranged from $10,318 (Louisiana) to $16,888 (Massachusetts) with vaginal births and from $13,943 (Louisiana) to $21,307 (California) with cesarean births.
- Average payments for babies with stays in neonatal intensive care unit nurseries far exceeded average payments for all newborns (from 3.7- to 5.6-fold) for both types of payers and both types of birth.
- From 2004 to 2010, average Commercial insurer payments for all maternal care increased by 49% for vaginal births and 41% for cesarean births.
- From 2004 to 2010, average out-of-pocket payments for all maternal care covered by Commercial insurers increased nearly fourfold for both vaginal (from $463 to $1,686) and cesarean (from $523 to $1,948) births.

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