

# HPC DATAPOINTS

Growth in out-of-pocket spending for pregnancy, delivery, and postpartum care in Massachusetts

## INTRODUCTION

Health care affordability is [an ongoing challenge](#) for Massachusetts residents with premiums and cost-sharing rising more quickly than wages and salaries. Understanding the implications of this affordability challenge is especially important for pregnancy, birth, and postpartum care. Labor and delivery is the most common category of hospital admission for Massachusetts residents under age 65, and the Massachusetts Health Policy Commission (HPC) has [consistently found](#) wide variation in spending for pregnancy and birth care, as well as growth in spending over time. Starting or growing a family is an [expensive life event](#), and it is important to understand how the cost of pregnancy, delivery, and postpartum care may contribute to financial burdens for families.

A key aspect of the affordability challenge in Massachusetts is rising out-of-pocket (OOP) costs. The HPC has found that average OOP spending among commercially-insured residents increased by 20% from 2015-2017, with an estimated 100,000 Massachusetts residents facing [persistently high OOP spending](#).

Nationally, researchers have found substantial growth in OOP spending for episodes of pregnancy, delivery, and postpartum care for patients with employer-sponsored insurance. From 2008-2015, [average OOP spending](#) for all types of deliveries grew from \$3,069 to \$4,569, a 49% increase largely driven by increased spending on deductibles. Both the size of deductibles and rates of enrollment in plans with deductibles have increased [nationally](#) in recent years as well as [in Massachusetts](#), where rates of enrollment in high-deductible health plans (HDHPs) have risen sharply. As of 2019, 85% of commercially-insured Massachusetts residents with non-group coverage and over 60% of commercially-insured residents employed at small and medium firms were enrolled in HDHPs.

This issue of the HPC's DataPoints series investigates commercial OOP spending associated with giving birth in Massachusetts, covering the full scope of care from pregnancy through postpartum – referred to here as “birthing episodes.”<sup>1</sup> OOP spending includes copayments, co-insurance, and deductibles. This analysis encompasses members with commercial insurance coverage who are included in the Massachusetts All-Payer Claims Database (APCD) 8.0 for 2016, 2017, and 2018.

This is a printable version of DataPoints. The online version features interactive graphics that show additional information, and is available on the HPC's website at [www.mass.gov/service-details/hpc-datapoints-series](http://www.mass.gov/service-details/hpc-datapoints-series).

## TRENDS OVER TIME IN OUT-OF-POCKET SPENDING FOR BIRTHING EPISODES

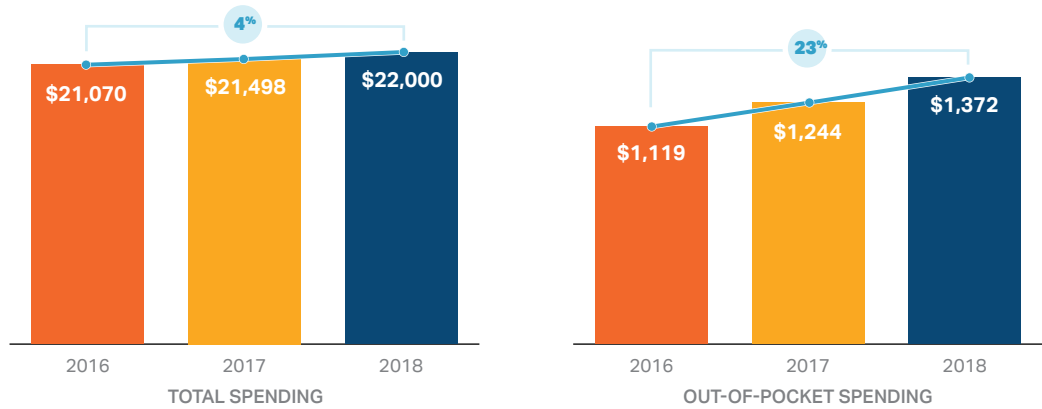
OOP spending for birthing episodes in the Commonwealth is growing more quickly than the total cost of care, indicating that patients are bearing an increasing share of the cost. From 2016 to 2018, mean spending on a full episode of pregnancy, delivery, and postpartum care increased by 4%, from \$21,070 to \$22,000. However, mean OOP spending for this scope of care increased by 23%, from

Average spending for birth episodes increased by 4%, while average OOP spending increased by 23%

Average **OOP spending** for birth episodes grew from **\$1,119** in 2016 to **\$1,372** in 2018

\$1,119 to \$1,372. OOP costs also represent a growing share of birthing episode spending, accounting for 5.3% in 2016 versus 6.3% in 2018.

**Change in total and out-of-pocket spending for birthing episodes, 2016-2018**



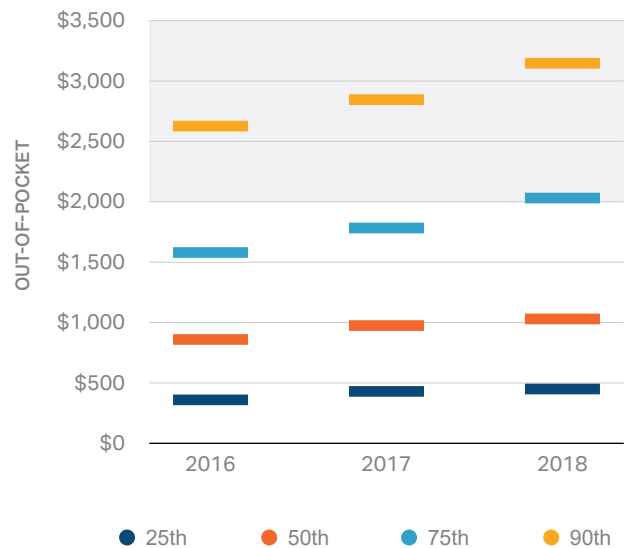
Average spending on **deductibles** for birthing episodes **increased by 25%**, from **\$708 to \$885**. Spending may be **even more** for patients whose birthing episodes **cross plan years** and must **meet multiple deductibles** after their **plans reset**

Similar to trends found at the national level, growth in OOP spending for birthing episodes in Massachusetts is driven by deductible spending. Deductible amounts and HDHP enrollment are rising; at the same time, many birthing people are relatively young and healthy, and would be unlikely to have met their deductibles with other health care utilization prior to giving birth. On average, deductible spending represented 65% of all OOP spending for pregnancy, delivery, and postpartum care as of 2018. From 2016-2018, mean spending on deductibles for birthing episodes increased by 25%, from \$708 to \$885. These trends may be more pronounced for patients whose birthing episodes cross plan years, and who must meet multiple deductibles after their plans reset partway through the episode.

Across the pregnancy, delivery, and postpartum stages of care, the inpatient labor and delivery stay accounts for the largest and fastest-growing share of OOP spending. On average for the three years measured, 28% of OOP spending was for prenatal care, 67% was for inpatient labor and delivery, and 5% was for postpartum care. OOP spending for labor and delivery is also growing the most quickly: labor and delivery OOP spending grew by 29% from 2016-2018, while OOP spending for prenatal care grew by 12% and postpartum OOP spending grew by 1%.

As found in [prior HPC research](#), trends in average OOP spending mask variation across individuals, and in particular, the experiences of those with the highest OOP spending. Variation in patients' OOP spending for birthing episodes is substantial. The 25th percentile of OOP costs for birthing episodes increased from \$360 to \$450 on average from 2016 to 2018. In contrast, the 75th percentile increased from \$1,580 to \$2,031, and the 90th percentile rose from \$2,627 to \$3,147 – meaning that in 2018, patients at the 90th percentile of OOP costs spent nearly seven times more than patients at the 25th percentile. Additionally, the share of patients paying over \$2,000 rose from 18% to 26% from 2016-2018.

**Out-of-pocket spending by out-of-pocket percentile, 2016-2018**



A **quarter of patients** (26%) paid over **\$2,000** OOP in 2018; **10% of patients** paid more than **\$3,100**

OOP spending on birth episodes is largely driven by insurance plan, rather than by care setting or delivery type

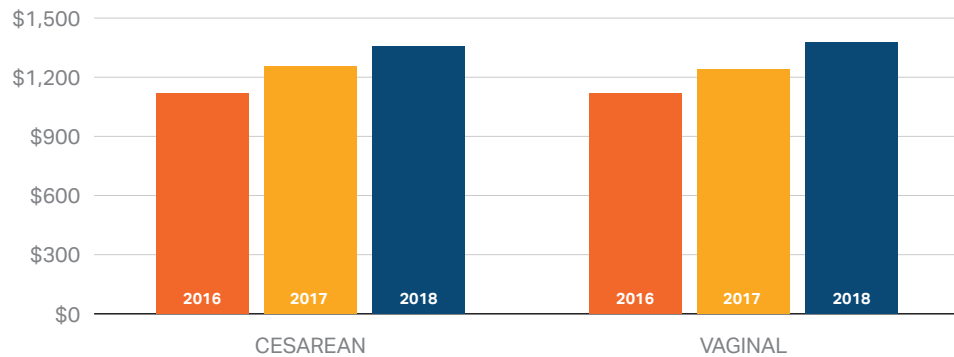
## FACTORS ASSOCIATED WITH OUT-OF-POCKET SPENDING

As shown in the findings below, although there are differences in overall spending by type of delivery or hospital, variation in OOP spending for pregnancy, delivery, and postpartum care is most strongly associated with the size of patients' employers. This suggests that variation and growth in OOP costs is primarily related to the design of insurance benefits and the types of coverage available at employers of different sizes, rather than variation in care delivery.

### Delivery type

While total spending for pregnancy, delivery, and postpartum care is higher on average for cesarean births (\$26,433) than for vaginal births (\$19,201), patients with both delivery types have similar OOP spending and have seen similar growth in OOP spending over time. From 2016-2018, OOP spending for vaginal deliveries increased by 23%, from \$1,120 to \$1,379. Similarly, OOP spending for cesarean deliveries grew by 21%, from \$1,117 to \$1,356.

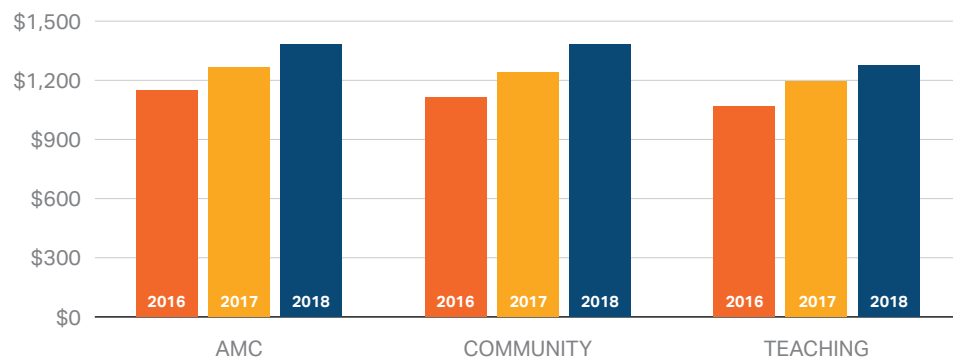
Out-of-pocket spending for cesarean and vaginal deliveries, 2016-2018



### Hospital cohort

Although total spending and OOP spending amounts varied by hospital cohort, growth trends in OOP costs across cohorts have been similar, further demonstrating that OOP spend is driven by insurance plans rather than care setting. In terms of total spending, academic medical centers (AMCs) had some of the highest prices: on average from 2016-2018, total birthing episode spending was \$28,865 at AMCs, compared to \$20,648 at teaching hospitals and \$21,518 at community hospitals. Despite the variability in prices, OOP spending growth has been similar across cohorts, increasing by 21% at AMCs (from \$1,147 to \$1,383), 19% at teaching hospitals (from \$1,069 to \$1,274), and 25% at community hospitals (from \$1,111 to \$1,384). For each year from 2016-2018, about 35% of births were in AMCs, 12% in teaching hospitals, and 53% in community hospitals.

Out-of-pocket spending for birthing episodes at academic medical centers, community hospitals, and teaching hospitals, 2016-2018



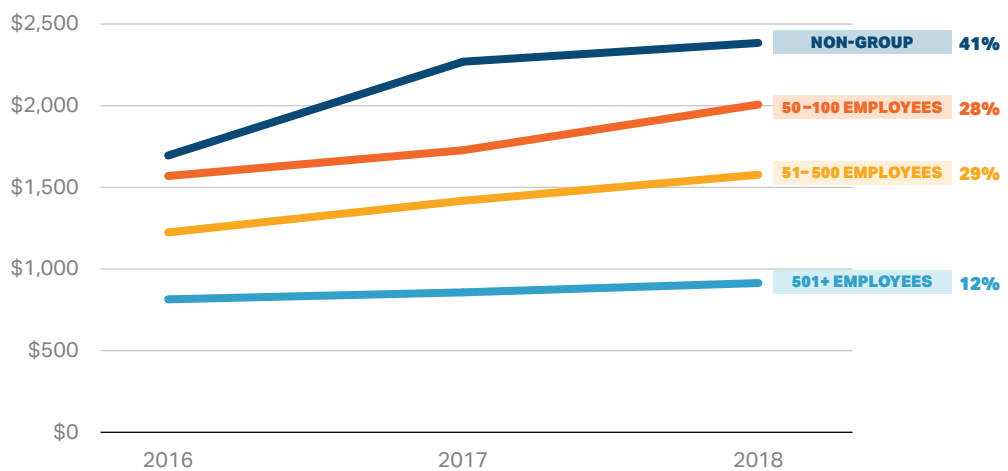
About 35% of births occur in AMCs, 12% in teaching hospitals, and 53% in community hospitals

The size of patients' **employers** is the **strongest predictor** of how much patients will spend **out-of-pocket** for pregnancy, delivery, and postpartum care

### Firm size

The size of patients' employers is the strongest predictor of how much patients will spend OOP for pregnancy, delivery, and postpartum care. In 2018, patients with non-group coverage and patients working at small firms of 1-50 employees had average OOP costs of \$2,385 and \$2,007, respectively, compared to \$914 among patients at large firms of over 500 employees. Likewise, while OOP costs grew from 2016-2018 for birthing people employed at firms of all sizes, spending increased most dramatically for patients with smaller employers. OOP spending grew most quickly for patients with non-group coverage and those employed at small and medium firms, with increases of 41% (non-group), 28% (1-50 employees) and 29% (51-500 employees). By contrast, patients employed at large firms saw their OOP costs grow by 12%.

**Out-of-pocket spending for birthing episodes for individuals with non-group coverage and employed at small, medium, and large firms, 2016-2018**



In 2018, patients with **non-group coverage** and patients working at **small firms** of 1-50 employees had average OOP costs of **\$2,385** and **\$2,007**, respectively, compared to **\$914** among patients at **large firms** of over 500 employees

Deductible spending was also highest among patients with non-group coverage and patients employed at small firms, reflecting higher rates of HDHPs offered at smaller employers. In 2018, individuals with non-group coverage spent an average of \$1,241 on their deductibles and individuals with small employers spent an average of \$1,308 – more than what patients with the largest employers spent OOP in total. Small firms are likely to offer less-generous coverage that includes HDHPs in an effort to control the growing cost of providing insurance coverage to their employees.

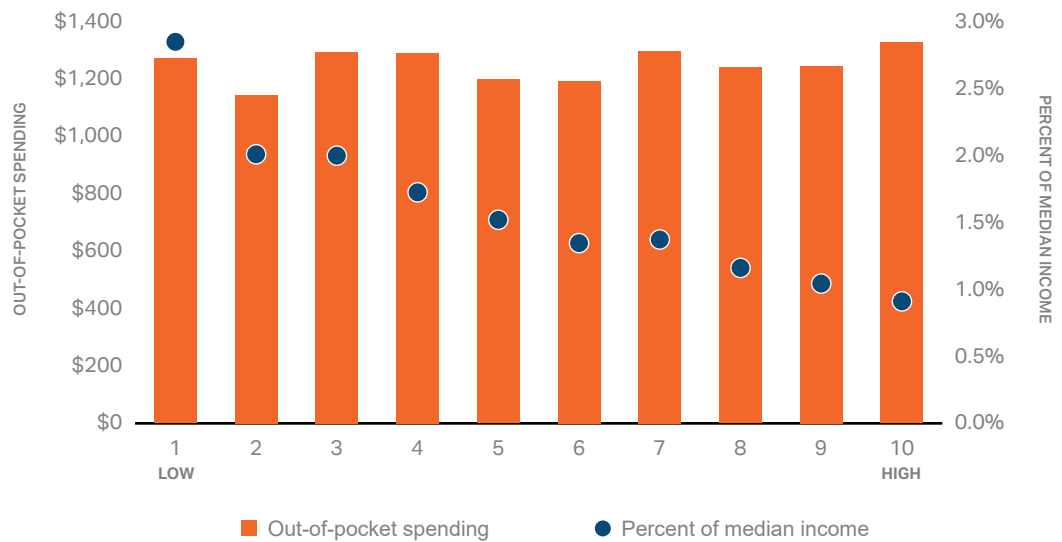
### AFFORDABILITY

Growth in OOP spending for pregnancy, delivery, and postpartum care has significant affordability implications. On average from 2016-2018, spending for birthing episodes represented 85% of patients' annual OOP costs in the year in which they gave birth. While it may be expected that having a baby would be patients' major source of health spending in a given year – because many patients giving birth are relatively young and healthy, with relatively low health care utilization – the proportion of patients' annual OOP spending for birthing episodes is increasing over time. Pregnancy, delivery, and postpartum care made up 80% of commercially-insured patients' annual OOP costs in 2016 and 90% in 2018. Patients' total OOP spending has increased, but more slowly than the costs associated with pregnancy, delivery, and postpartum care – indicating that this scope of care is becoming more costly for patients.

Affordability concerns are especially pronounced for residents with lower incomes in the Commonwealth. OOP spending for birthing episodes is similar for patients at all income levels and as a result is more burdensome for patients with lower incomes, representing 0.9% of the median annual income of patients living in the highest-income areas but 2.8% of the median annual income of patients in the lowest-income areas. This spending is in addition to other costs involved in caring for a new baby: first-year costs for newborn and infant care can add up quickly, including supplies and services such as diapers, car seats, strollers, and childcare. The cost of caring for children in families with middle incomes is [approximately \\$13,000](#) each year, not including any costs for pre-natal or birth care.

OOP spending for birthing episodes is similar for patients at **all income levels** – and therefore more burdensome for patients with lower incomes, representing about **1% of the median annual income** of patients living in the **highest-income** areas but about **3% of the median income** of patients in the **lowest-income** areas

**Average out-of-pocket spending for 2016-2018 and percent of annual income, by community income decile**



## CONCLUSION

For commercially-insured patients, the cost of starting or growing a family in Massachusetts has increased over time – particularly for those with non-group coverage or those employed at smaller firms. This trend is largely driven by spending on deductibles, reflecting the increasing concentration of commercial enrollment in HDHPs among workers at smaller firms. Rising enrollment in HDHPs is likely driven by the increasing unaffordability of [health insurance premiums](#), which leads individuals to seek plans that balance lower premiums with higher OOP costs and leads smaller employers to offer less-generous coverage in an effort to control the cost of insuring their employees. While some employers offer arrangements such as pre-tax health savings accounts (HSAs) to help employees cover their OOP expenses, smaller employers are [less likely](#) to offer such arrangements. Even where HSAs are available, they disproportionately benefit higher-income workers who pay higher tax rates and are therefore able to retain more money when saving on a pre-tax basis.

Increased OOP spending is particularly burdensome for patients with lower incomes, for whom OOP costs for pregnancy, delivery, and postpartum care may represent nearly 3% of their annual income. Such affordability challenges are part of a larger worrisome trend in which commercially-insured patients’ premiums and OOP costs continue to grow faster than their wages, and part of a landscape in which Massachusetts residents with lower incomes are [disproportionately likely](#) to forgo care due to cost.

The Massachusetts Health Policy Commission (HPC) is an independent state agency charged with monitoring health care spending growth in Massachusetts and providing data-driven policy recommendations regarding health care delivery and payment system reform. The HPC's mission is to advance a more transparent, accountable, and equitable health care system through its independent policy leadership and innovative investment programs.

**HPC DataPoints** is a series of online briefs that spotlight new research and data findings relevant to the HPC's mission to drive down the cost of health care. It showcases brief overviews and interactive graphics on relevant health policy topics. The analysis underlying these briefs is conducted by HPC staff. To view all HPC DataPoints, visit our [website](#).

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Massachusetts Health Policy Commission. DataPoints Issue 21: Growth in out-of-pocket spending for pregnancy, delivery, and postpartum care in Massachusetts. Mar. 29, 2022. Available at: <https://www.mass.gov/info-details/hpc-datapoints-issue-22>

Growing OOP costs for birthing episodes also raise racial equity concerns. Birthing people of color continue to experience disproportionate rates of adverse pregnancy and birth outcomes in Massachusetts,<sup>2</sup> and perinatal morbidity can have significant and ongoing [financial costs](#). Hispanic and Black Non-Hispanic Massachusetts residents also report health care affordability challenges at [higher rates](#) than White Non-Hispanic residents. The HPC's findings indicate that the growing focus on addressing racial disparities in perinatal birth outcomes must also include an affordability component.

While the HPC [has recommended](#) increased use of lower-cost clinicians and birth settings where appropriate – such as certified nurse midwives and birth centers – the findings reported in this DataPoints suggest that solutions to rising OOP costs lie primarily with insurance design rather than in care delivery. Indeed, average OOP costs for birthing episodes did not differ significantly between AMCs and community hospitals or between vaginal and cesarean births, despite marked differences in the total cost of care by hospital cohort and delivery type. Lowering the overall cost of birth care may not directly address insurance benefit designs that place growing OOP requirements on patients.

## Endnotes

- 1 This analysis used birthing episodes including prenatal care, labor and delivery, and postpartum care for individuals who gave birth from July 1, 2016-September 30, 2018. Episodes include care for 6 months before admission for a labor-and-delivery inpatient hospital stay, during the inpatient stay, and for 3 months after discharge. Spending for fertility treatment is unlikely to be included in the episode of care, since the episode begins 6 months before delivery. Patients were identified based on having inpatient hospital stays associated with DRGs for vaginal or cesarean delivery (765, 766, 767, 768, 774, 775). For individuals with multiple births during the study period, only the first birth was retained. Individuals without a full 12 months of claims in each year were excluded, as was spending for select services with frequently occurring claims not necessarily related to pregnancy (e.g. psychotherapy, physical therapy). Spending not covered by insurance, such as out-of-network services or direct-pay doula care, is also excluded.
- 2 Massachusetts Department of Public Health. Massachusetts State Health Assessment. Boston, MA; October 2017