

# Maternity Care in the United States: We Can – and Must – Do Better

February 2020

*Too often, maternity care in the United States fails women and families – in not being accessible, safe, equitable, woman-centered, evidence-based or affordable. Further, maternity services often fail to mobilize housing, transportation and other non-medical factors that strongly affect birth outcomes. Poor – and for many key indicators, worsening – maternal and newborn health outcomes signal that major improvements are overdue. Getting maternity care right is urgent for this and future generations.*

## Quality Maternity Care Is a Foundation of Our Nation’s Health

*Maternity care provided from pregnancy through birth and the postpartum/newborn period affects every one of us. No other part of our health care system has a greater effect on the health of our population.*

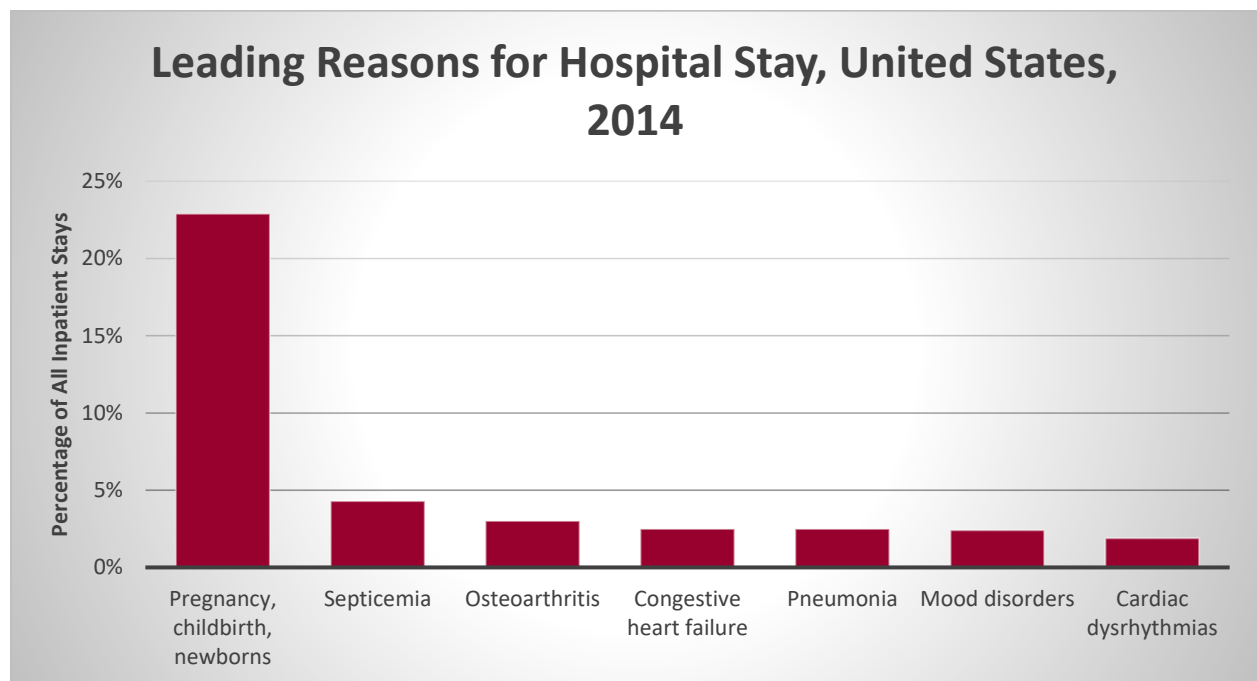
- Reliably delivering better care is an under-recognized way to affect a new baby’s health and wellness for a lifetime. Studies of the “developmental origins of health and disease”<sup>1</sup> (including knowledge of epigenetics,<sup>2</sup> the human microbiome,<sup>3</sup> life course health development<sup>4</sup> and hormonal physiology of childbearing<sup>5</sup>) increasingly point to long-term, even lifelong positive and negative effects of care during this sensitive period of development.
- The quality of prenatal, labor and birth and postpartum care also affects shorter- and longer-term health<sup>6</sup> of the women who give birth one or more times.

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## Maternity Care Is a Major Segment of the Health Care System

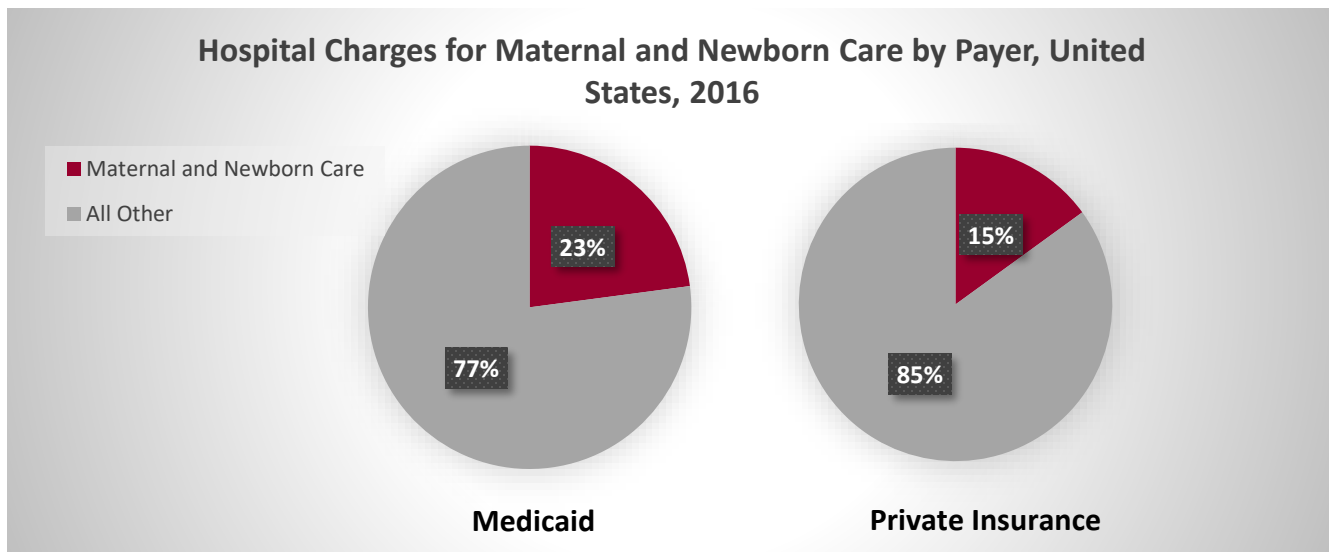
Maternity care is also a major segment of the health care system. A baby is born every eight seconds in the United States.<sup>7</sup> Within hospital-based care, maternal and newborn care towers over other conditions.

- More hospital stays are for pregnancy, childbirth and newborn care – 23% – than any other reason by far.<sup>8</sup>



(Source: 10)

- Six of the 16 most common hospital procedures are for maternal or newborn care, including the nation's most common operating room procedure: cesarean birth.<sup>9</sup>
- Maternal and newborn care makes up 22.9% of all hospital charges billed to Medicaid, a medical assistance program for people with low incomes, and 15.0% of all hospital charges billed to private insurers.<sup>10</sup>



(Source: 11)

## Many Women Struggle to Access Maternity Care

*Women in the U.S. face financial, geographic, and other barriers to accessing maternity care. These challenges especially affect those already vulnerable to poorer outcomes.*

- Medicaid covers 42.3% of births, and private insurance covers 49.6%.<sup>11</sup> For many women, the childbearing year involves changes in health insurance coverage (called “churn”),<sup>12</sup> including becoming eligible for and then losing Medicaid coverage.
- The loss of access to contraceptive care and abortion services, including restrictions on access to Planned Parenthood clinics, which also provide prenatal and postpartum care, harms women and newborns.<sup>13</sup> Just 67.1% of pregnancies are intended.<sup>14</sup>
- 35% of counties are “maternity care deserts” with neither a hospital maternity unit nor any obstetrician-gynecologist or certified nurse-midwife.<sup>15</sup> Most rural women have to drive more than a half hour to the nearest hospital with maternity services.<sup>16</sup>
- Almost one woman in five is unable to have her first prenatal visit as soon as she wants it. Women cite financial, insurance, and other reasons for this undesirable delay.<sup>17</sup>
- About 10% of women have no postpartum visit, and many with postpartum care report that contraception, depression and other core topics are not discussed.<sup>18</sup>

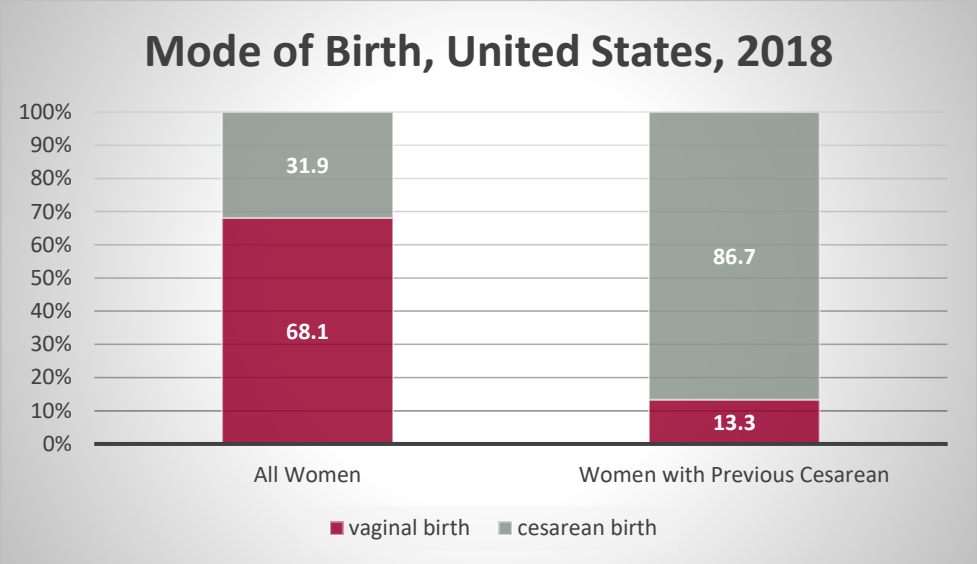
- While women frequently experience new health concerns after giving birth,<sup>19</sup> and about 12% of pregnancy-related deaths occur from seven weeks to one year after birth,<sup>20</sup> loss of or changes in health insurance after birth often makes seeking care and treatment difficult.<sup>21</sup>
- Limited or no access to paid maternity leave burdens and constrains many families in the postpartum period.<sup>22</sup>
- Political turbulence in the health care environment (e.g., threats to Affordable Care Act and attempts to weaken Medicaid coverage) imperils many women's access to public and private insurance coverage and creates uncertainty for their service providers.

## **Too Often, Maternity Care Does Not Align With Quality or Choice**

*Delivering the right maternity care is a challenge in the U.S.: patterns of overuse and underuse are common.<sup>23</sup> Overuse is use of procedures, drugs or tests that offer no clear benefit and possible harm – often in healthy women. Underuse is when safe, beneficial practices are not routinely available. Every woman should have access to evidence-based maternity care and experience shared decision making and support for her informed choices, a sequence that often does not occur.*

- About four in 10 women experience labor induction,<sup>24</sup> yet research does not support many indications used for inducing labor.<sup>25</sup>
- A pattern of many fewer births on weekends (and at night and on holidays) shows the extent of scheduled births, and suggests that they are often timed for hospital and workforce convenience versus interests of women and babies.<sup>26</sup>
- A steep increase in the cesarean rate (now at 31.9% of all births<sup>27</sup>) over the last two decades was not accompanied by any improved health outcomes for women or babies; instead, many have been needlessly exposed to the additional short- and long-term risks and complications of cesarean, compared with vaginal birth.<sup>28</sup>
- A low-risk, first-time mom is up to 15 times more likely to have a cesarean birth at one hospital than another, and rates of vaginal birth after cesarean vary nearly tenfold by hospital.<sup>29</sup> Hospital culture and care management factors, rather than the health needs of women or babies, are responsible for much variation in practice and many cesarean births.<sup>30</sup>

- Almost half of women who are interested in having a vaginal birth after cesarean (VBAC) are denied that option, despite evidence and guidelines that support offering VBAC to nearly all women with one or two past cesareans.<sup>31</sup> This lack of access to evidence-based care contributes to a very high 86.7% repeat cesarean rate.<sup>32</sup>



(Source: 12)

- Often, patterns of care fail to harness the benefits of innate healthy physiologic processes of women and their fetuses/newborns around the time of birth.<sup>33</sup> Most women now value avoiding unneeded maternity interventions; their interest in midwives, birth centers and other forms of care that support these capabilities and limit unneeded intervention far exceeds current use.<sup>34</sup>
- The many effective care practices that are not widely provided include smoking cessation interventions in pregnancy, hand maneuvers to turn a fetus to a headfirst position at term, planned labor after one or two cesareans, continuous support during labor, intermittent auscultation for fetal monitoring, being upright and mobile during labor, and treating perinatal depression.<sup>35</sup>

*There are major concerns with the quality of care provided in the nation's neonatal intensive care units (NICUs).*

- Care varies considerably across NICUs: most variation is unrelated to needs of newborns and preferences of families and thus is “unwarranted.” Another non-medical factor shaping NICU care is supply-sensitive admission of lower and lower risk newborns due to a nearly 70% increase in the number of NICU beds per newborn and large growth in the number of neonatologists from 1995 to 2013.<sup>36</sup>
- Due to these factors, many newborns get too much care and pay the price of unneeded separation from mothers and harmful exposures with little or no benefit, while others get too little care or the wrong care.<sup>37</sup>

## **Maternity Care Outcomes Are Unacceptable, and Many Are Worsening**

*Trends are going in the wrong direction for a series of consequential outcomes in women and babies.*

- Pregnancy-related deaths rose from 7.2 per 100,000 live births in 1987 to 16.9 per 100,000 in 2016.<sup>38</sup> A portion of this rise is due to efforts to improve measurement and better measurement.<sup>39</sup>
- The distribution of pregnancy-related deaths clarifies that improvements are needed across the continuum of care: about one-third occur during pregnancy, one-third on the day of birth through first week, and one-third from day 7 through the first year postpartum.<sup>40</sup>
- Severe maternal morbidity (21 conditions and procedures signaling a “near miss” of dying) rose 45% from 2006 through 2015, from 101.3 to 146.6 per 10,000 hospitalizations for birth.<sup>41</sup>
- Preterm birth (before 37 weeks of pregnancy) rose from 9.57% in 2014 to 10.02% in 2018.<sup>42</sup>
- Low birthweight (less than 5.5 pounds) rose from 8.00% in 2014 to 8.28% in 2018.<sup>43</sup>

*Many women face less dire yet distressing and debilitating pregnancy experiences and birth outcomes.*

- Despite broad recognition that the steep rise in the cesarean rate since the mid-1990s involved no discernible gains in maternal or infant health,<sup>44</sup> that this procedure poses many excess risks for women and cesarean-born babies,<sup>45</sup> and that too many women give birth by cesarean,<sup>46</sup> the nation’s cesarean rate has essentially plateaued for a decade at nearly one in three.<sup>47</sup>

- In the postpartum period, women experience a broad array of new-onset morbidities – including pain, exhaustion and infections – and in many instances these persist to six or more months after birth.<sup>48</sup>
- Anxiety and depression are prevalent during both pregnancy and the postpartum period, and the great majority who screen positive for these conditions do not receive treatment.<sup>49</sup>

*Breastfeeding, which offers multiple shorter- and longer-term preventive benefits to both women<sup>50</sup> and babies,<sup>51</sup> falls far short of recommendations.*

- Just 26.1% of babies are born in “Baby-Friendly” facilities with demonstrated provision of supportive breastfeeding practices.<sup>52</sup>
- Just 24.9% of babies are exclusively breastfed through six months, the standard that professional societies recommend.<sup>53</sup> Considerably more women intend to meet this goal, but unsupportive health care practices and social and workplace policies often interfere.<sup>54</sup>
- Professional societies also recommend continued breastfeeding to one year or beyond, yet just 35.9% are breastfeeding at 12 months.<sup>55</sup>

*Substance use disorders affect many childbearing women and their babies.*

- In 2016, 91,800 births – or 24.3 per 1,000 hospital stays for birth – had a substance use disorder (SUD) diagnosis involving opioids, cocaine and other stimulants.<sup>56</sup>
- Compared with births without this diagnosis, those with SUD were more likely to experience a series of consequential adverse clinical outcomes.<sup>57</sup>

## **On Key Maternal and Infant Indicators, the United States Compares Very Unfavorably to Most-Similar Nations**

*Despite the nation’s affluence and outsized expenditure for maternal-newborn care (see below), many other nations achieve superior results for key perinatal indicators.*

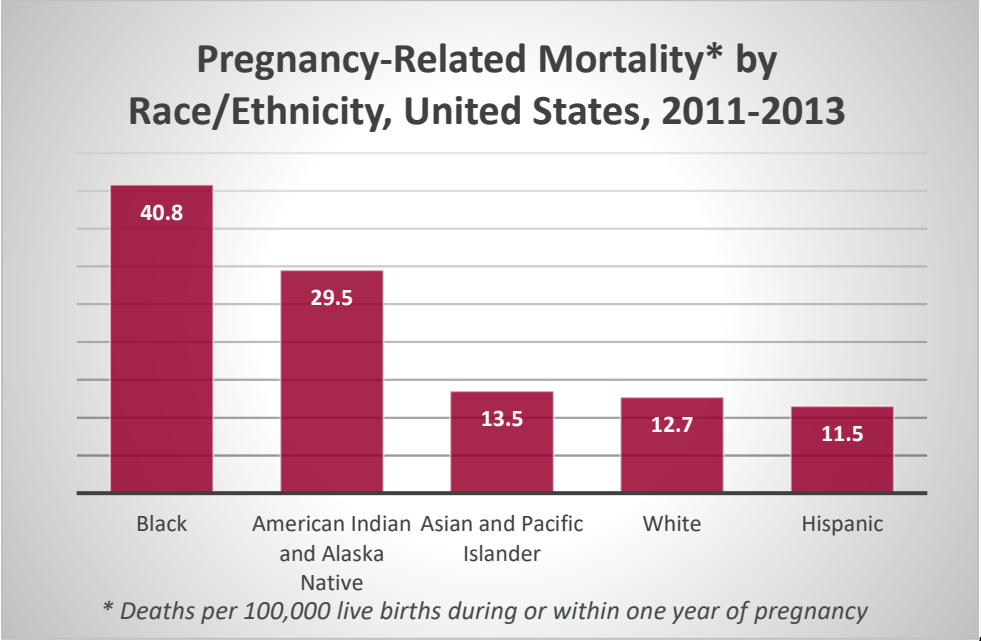
- Compared with 10 other high-income nations (Australia, Canada, Denmark, France, Germany, Japan, the Netherlands, Sweden, Switzerland, United Kingdom), the U.S. has the highest: maternal mortality (26.4/100,000 live births, versus mean 8.4 for these nations), neonatal mortality (4/1,000 live births, mean 2.6), infant mortality 5.8/1,000 live (births, mean 3.6) and cesarean rate (33% of live births, mean 25%), and second highest low birth weight rate (8.1% of live births, mean 6.6%).<sup>58</sup>

- The United States ranks 33rd among world nations on Save the Children’s Mothers Index, a composite of maternal health, child wellbeing, education, economic security and political participation.<sup>59</sup>

**Outcomes of Maternity Care Are Inequitable**

*Racial and ethnic disparities are often extreme and especially impact Black and Native women and newborns. Rural and low-income women also face disproportionately adverse maternal-infant outcomes.*

- Black women are more than three times as likely and Native women more than twice as likely as white women to experience pregnancy-related death.<sup>60</sup>
- 60% of pregnancy-related deaths are considered preventable, including by access to and provision of quality care, with no difference in preventability by Black or Hispanic versus white women.<sup>61</sup>



(Source: 59)

- Black women, Hispanic women and women of other races/ethnicities disproportionately experience births with severe maternal morbidity (66%, 10% and 15% higher, respectively), relative to white women. SMM is associated with a high rate of preventability.<sup>62</sup>



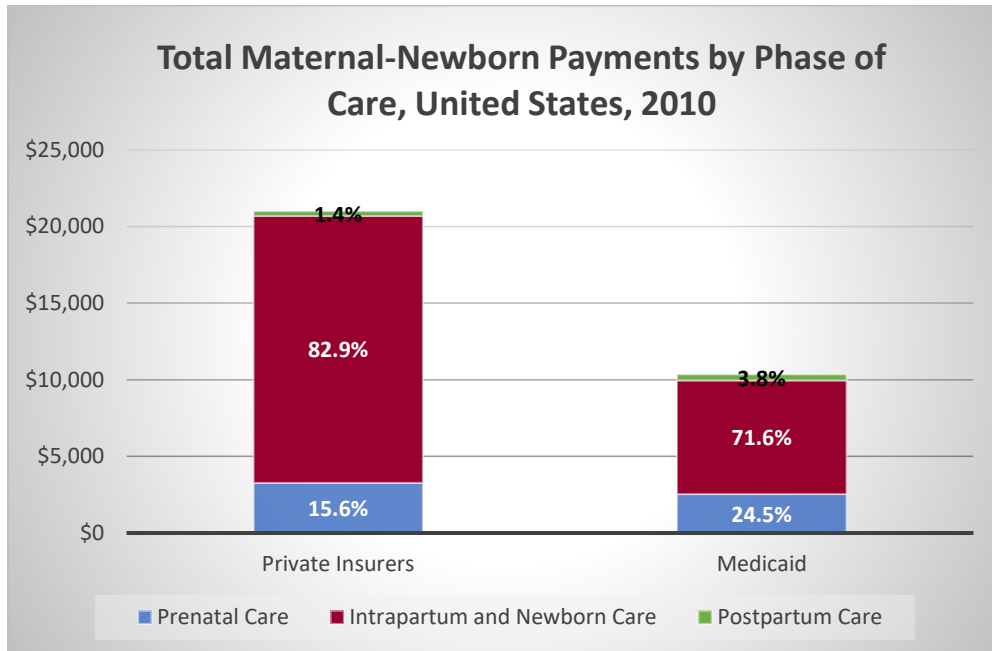
- Rural women are 9% more likely than urban women to experience a composite measure of severe maternal morbidity and maternal mortality,<sup>63</sup> and 59% more likely to have a substance use disorder diagnosis at the time of birth.<sup>64</sup>
- Infant, neonatal and post-neonatal mortality rates are higher in rural than urban counties.<sup>65</sup>
- Babies born in the Delta Regional Authority (252 counties in AL, AR, IL, KY, LA, MO, MS, TN) and the Appalachian Regional Commission (420 counties in AL, GA, KY, MD, MS, NY, NC, OH, PA, SC, TN, VA, WV) are more likely than babies born in the rest of the nation to experience preterm birth, low birth weight and infant mortality, reflecting geographic variation in levels of economic distress and disadvantage<sup>66</sup> and racism.<sup>67</sup>
- Rates of teen birth vary fourfold across states, from 7.2 per 1,000 births in Massachusetts to 30.4 per 1,000 births in Arkansas.<sup>68</sup>
- Infant mortality and neonatal mortality reflect a two- to three-fold gradient similar to the above pregnancy-related mortality chart, ranging from highest rates among infants of Black women to lowest rates among infants of Asian women.<sup>69</sup>
- Other practices and outcomes that vary by race and ethnicity include rate of births to teens aged 15 through 19, proportion initiating prenatal care in the first trimester, rate of smoking during pregnancy, rates of labor induction and cesarean birth, rates of preterm birth and low birth weight, and rates of breastfeeding initiation and duration.<sup>70</sup>

## **Maternity Care is Very Costly, and Resources Are Poorly Aligned With Need**

*High-value maternity care means good birth outcomes paired with wise spending. On top of unacceptable outcomes, the cost of maternity care in the U.S. is very high and rising.<sup>71</sup> Outdated payment systems (paying for doing things regardless of whether good care was provided and good outcomes attained), patterns of intensive procedure use and high prices contribute to care that is unnecessarily and unsustainably expensive.*

- The nation's overall health care costs exceed those of other nations by far, whether measured as proportion of gross domestic product or average cost per person.<sup>72</sup> In available international comparisons of maternity care costs, those in the United States are regularly the highest.<sup>73</sup>

- Together, maternal and newborn care are the most expensive hospital conditions for Medicaid, private insurance and all payers.<sup>74</sup>
- The average actual price paid for hospital fees alone was \$11,200 for a vaginal birth and \$15,000 for a cesarean birth when covered by private insurers in 2017.<sup>75</sup> This figure does not include provider fees; services such as anesthesiology or pharmacy; nor any prenatal or postpartum care.
- Historically, actual prices paid for all maternal and newborn care are about 50% higher when the birth is cesarean rather than vaginal.<sup>76</sup> Costs of a primary, or first, cesarean compound over time with the high rate of routine repeat cesarean.<sup>77</sup>
- Historically, actual prices that Medicaid pays to service providers for all maternal and newborn care are about half the amount of private payments, despite the frequently greater health needs of women covered by Medicaid.<sup>78</sup> (Even Medicaid payments are on the high end of the international range.)<sup>79</sup>
  
- About four in five of all dollars paid on behalf of maternal and newborn care go to the facility and other payments for the relatively brief hospital phase of care.<sup>80</sup> High rates of costly procedures (e.g., induced labor, epidural analgesia, cesarean birth) in this largely young and healthy population contribute to the expense of hospital birth.
- Highly profitable newborn intensive care units (NICUs) also contribute to in-hospital resource use. A steep growth in the number of NICUs and number of neonatologists has been associated with supply-induced demand and admission of healthier and healthier newborns to NICUs,<sup>81</sup> in addition to sicker babies who are likely to benefit from such care.
- Limited resources allocated to prenatal and postpartum care (just one in five of all dollars paid for maternal and newborn care<sup>82</sup>) limit the care team's ability to address individual needs at a time when women are engaged, motivated and have extended contact with the health care system. Lack of resources for linking to needed social and community services and coordinating care across the clinical episode is deeply troubling.



(Source: 79)

- Considering just low-risk births, cost varies widely,<sup>83</sup> and hospital factors but not quality are associated with higher costs.<sup>84</sup>
- Out-of-pocket costs of childbearing families with commercial insurance can be especially high<sup>85</sup> due to their contribution to premiums, deductibles (possibly incurred twice across two plan-years), co-pays, co-insurance, unexpected hefty out-of-network charges (e.g., for anesthesiologist) and uncovered costs (e.g., for labor doula). This comes at a time when families incur increased non-health expenses and many lack paid family and medical leave.

## Sustained Stakeholder Commitment Can Transform Maternity Care

*The shortcomings of the U.S. maternity care system provide extensive opportunities for improvement, and many stakeholders are taking up the challenge. Recent, promising signs of momentum in the right direction include:*

- Growing recognition that inequity and harmful “social determinants of health” such as systemic racism; lack of access to paid family and medical leave; and inadequate housing, transportation and economic security shape birth outcomes and must be addressed to achieve optimal health outcomes.

- Efforts to provide ready access to maternity care for all women, including through universal coverage extending to one year postpartum and by reversing the loss of maternity services in rural areas
- Practice recommendations that support provision of beneficial, underused care practices while avoiding unneeded, harmful ones
- Episode, maternity care home and other alternative payment models that incentivize high-quality care, increasingly used by Medicaid and other payers
- Increasing use of high-value maternity care models, including midwifery-led care, birth center care, team-based care, doula support, and culturally concordant services of community-based perinatal health workers
- Quality measurement that can inform all stakeholders about opportunities for improvement and increase accountability, along with quality improvement initiatives such as perinatal quality collaboratives and Council on Patient Safety in Women's Health Care maternal safety bundles
- Decision aids and other tools to help women obtain safe, effective care aligned with their individual needs and preferences

*These positive changes are just the beginning of the transformation that can and must occur. Until we reliably pay for the right care, change the culture of practice and scope of care and avoid the waste of less effective and all-too-often harmful care, families and payers will be vulnerable to unacceptable outcomes and excessive costs. Policymakers, clinical leaders, advocates and other stakeholders must commit to long-term, far-reaching efforts to create a uniformly high-quality, high-value maternity care system that is equitable for all women and families.*

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- <sup>79</sup> See note 75.
- <sup>80</sup> See note 76.
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