Health Matrix: The Journal of Law-Medicine

Volume 30 | Issue 1 Article 10

2020

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WHY THE UNITED STATES IS FAILING NEW MOTHERS AND HOW IT CAN COUNTERACT ITS RAPIDLY CLIMBING MATERNAL MORTALITY RATE

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INTRODUCTION

After a seemingly successful and healthy cesarean delivery, new mom Ali Lowry cradled her newborn in her arms.[1] While breastfeeding her son, Ali's vision suddenly went black, her heart rate plummeted, and she lost consciousness. Periodic blood pressure measurements over the next three hours demonstrated dangerously low rates; however, the nurses and doctor on duty assured her that it was nothing more than normal postpartum fatigue and did not follow up with Ali's symptoms. It was not until a new supervising nurse started her shift and saw Ali's blood pressure measurements that an emergency response team was called.[2]

Surgery revealed that Ali had been internally bleeding for hours. Ali continued to bleed internally and externally throughout the entire hour and a half long surgery, as well as hours following the procedure. Despite the excessive blood loss, Ali's doctor said that it was "OK" and that it still looked like normal postpartum bleeding. But, Ali's condition worsened as she continued to bleed. As a result, Ali needed an emergency hysterectomy in order to stay alive.[3]

Unfortunately, by that point, the doctor had already transfused so much blood into Ali's body to counteract the bleeding that the hospital no longer had enough matching blood to perform the procedure. Luckily, despite her critical condition, Ali survived a dangerous transfer to another hospital where the

1. Alison Young, *Hospitals Know How to Protect Mothers. They Just Aren't Doing It*, USA TODAY, https://www.usatoday.com/in-depth/news/investigations/deadly-deliveries/2018/07/26/ [https://perma.cc/L588-8HZ7] (last updated Nov. 14, 2019).

2. *Id.*

3. *Id.*

doctor successfully removed her uterus, stopped the bleeding, and brought her vital signs under control.[4]

Had Ali's medical team acted immediately upon seeing the warning signs, her situation may not have become so dire. According to the Childbirth Safety Toolkit, a handbook created by experts in California, blood pressure below 84/45 is a red flag.[5] Ali's periodic blood pressure measurements were: 52/26, 57/25, 56/24, 59/27.[6] These low measurements should have alerted Ali's nurses and doctor to check for internal bleeding, which, in turn, should have prompted the doctor to measure the exact blood loss as opposed to just "eye-balling" it and assuming it was normal postpartum bleeding. Fortunately, Ali survived the emergency hysterectomy. However, survival in a situation like this was rare; countless others have not been so lucky.[7]

Cases like Ali's are more common than one would expect. In fact, the United States is the most dangerous developed nation in which to give birth.[8] According to the Center for Disease Control and Prevention (CDC), the United States currently ranks 50th globally for maternal mortality.[9] Healthy mothers, including those who experience little to no complications while pregnant, are dying or suffering post-birth injuries due to hospitals and health professionals failing to preform basic life-saving measures.[10] Each year, over 50,000 new mothers are injured in the United States post-birth, and over 700 die.[11] Between 1990 and 2015, the maternal death rate in other developed nations has steadily decreased, while the death rate in the United States has dramatically increased.[12] This is due to a lack of required practices and regulation.

4. *Id.*
5. *Id.*
6. *Id.*
7. *Id.*
8. *Id.*
9. Debra Bingham et al., *Maternal Mortality in the United States: A Human Rights Failure*, 83 CONTRACEPTION 189, 189 (2011).
10. Young, *supra* note 1.
11. *Id.*
12. *Id.*

A few common—and avoidable—post-birth problems from which new mothers are suffering are: (1) bleeding to the point of organ failure (*i.e.* hemorrhage); (2) strokes after high blood pressure goes unnoticed or untreated; (3) pregnancy-related hypertensive disorders (such as preeclampsia, eclampsia, and hypertension); (4) preventable blood clots; and (5) untreated infections.[13] Hospitals, doctors, and nurses can easily prevent these problems by performing basic tasks—the amount of blood loss that a woman experiences after birth can be quantified and tracked by simply weighing the bloody pads; strokes from high blood pressure can be prevented by administering a simple pill within an hour of observing the high blood pressure; blood clots can be prevented by administering a blood thinner; and so forth.[14] Instead of providing these basic treatments, however, doctors and nurses have been "eye-balling" the amount of blood loss, ignoring high blood pressures and warning signs, and failing to administer proper medicine. A study compiled by nine maternal-death review committees across the country found that roughly sixty-eight percent of *all* pregnancy-related deaths are preventable, and that roughly seventy percent of deaths caused by postpartum hemorrhage, alone, are easily preventable.

13. *Pregnancy Mortality Surveillance System*, CTR. FOR DISEASE CONTROL AND PREVENTION, https://www.cdc.gov/reproductivehealth/maternal-mortality/pregnancy-mortality-surveillance-system.htm [https://perma.cc/9KHQ-DZFB] (last reviewed Oct. 10, 2019) [hereinafter *CDC Surveillance*].

14. *See* MATERNAL MORTALITY REVIEW INFORMATION APPLICATION, BUILDING U.S. CAPACITY TO REVIEW AND PREVENT MATERNAL DEATHS—REPORT FROM NINE MATERNAL MORTALITY REVIEW COMMITTEES (2018) [hereinafter *MMRI Report*]; *see* CAL. MATERNAL QUALITY CARE COLLABORATIVE, CAL. DEP'T. OF PUB. HEALTH, OBSTETRIC HEMORRHAGE TOOLKIT HOSP. LEVEL IMPLEMENTATION GUIDE (2010).

Preventability[15]	Overall	Cardiovascular & Coronary Conditions	Hemorrhage Rate
Not Preventable	33.5%	27.3%	25.0%
Preventable	63.2%	68.2%	70.0%
Undeterminable	3.2%	4.6%	5.0%

Despite clear evidence that the majority of pregnancy-related deaths are preventable, there are no required practices concerning post-partum maternal care, only recommended practices.[16] With the exception of California (which recently revolutionized its childbirth protocol after being the nation's leading state in maternal deaths for a number of years[17]), there has been little visible progress across the nation. Although Congress recently enacted the Preventing Maternal Deaths Act of 2018 (the PMDA), which provides federal funding for states to create maternal mortality review committees,[18] it does not do enough to solve the problem at hand. In addition, the Joint Commission, a private hospital-accrediting organization, has recently developed new hospital accreditation standards regarding maternal mortality.[19] While these standards may seem like the solution to this crisis, the Joint Commission's lack of enforcement renders the requirements potentially futile. Because the PMDA is lacking in many aspects and has numerous pitfalls, and because the Joint Commission lacks substantial enforcement power, I recommend amending the PMDA to address its major problem areas immediately. In addition, I suggest that a campaign to increase education, awareness, and motivation, within society and the medical profession, is necessary to achieve better results and incite change. By achieving these goals, and closing the gap between federal law and private and state action, hospitals and

15. *MMRI Report*, *supra* note 14, at 22.

16. Young, *supra* note 1.

17. *Id.*

18. *AHA-supported Bill Would Expand Data to Improve Maternal Health*, AM. HOSP. ASS'N (Oct. 30, 2018), https://www.aha.org/news/headline/2018-10-30-aha-supported-bill-would-expand-data-improve-maternal-health [https://perma.cc/D8QY-3NPN].

19. *See* discussion, *infra*, at Section III. b.

physicians will be better equipped and better educated to combat the rising maternal death rate in the United States.

Section I of this Note describes the current maternal-death climate in the United States. Section II discusses in detail how California implemented changes in order to become the only state to decrease its maternal death rate over the past decade.[20] Section III analyzes the new hospital accreditation requirements issued by the Joint Commission regarding preventing maternal death, as well as discusses why the Joint Commission's current approach to enforcing accreditation requirements is not enough to decrease maternal death. Section IV critiques the PMDA and analyzes how this new law can be more effective. Additionally, Section IV recommends immediately amending the PMDA. Section V suggests that in addition to a federal call to action, there must also be a societal initiative to increase education, awareness, and motivation surrounding maternal mortality and how it can be solved.

I. CURRENT STATISTICS AND PRACTICES IN THE UNITED STATES

Maternal death, as defined by the World Health Organization (WHO), is "the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by pregnancy or its management but not from incidental or accidental causes."[21] The measure for maternal mortality is the Maternal Mortality Ratio (MMR)—maternal deaths per 100,000 live births.[22] Over the past two decades, various countries around the globe have significantly decreased their MMR's, leading to a global decrease of maternal death by roughly thirty-four percent.[23] Meanwhile, the MMR in the United States has increased from 12 deaths per 100,000 live births in 1990, to 28

20. Young, *supra* note 1.

21. William M. Callaghan, *Overview of Maternal Mortality in the United States*, 37 SEMINARS IN PERINATOLOGY 2, 3 (2012).

22. K.S. Joseph et al., *Factors Underlying the Temporal Increase in Maternal Mortality in the United States*, 129 OBSTETRICS & GYNECOLOGY 91, 91 (2017).

23. *Id.*

deaths per 100,000 live births in 2013.[24] This ratio is higher than that of most European countries, as well as most of Asia and the Middle East.[25] As of 2015, Sweden has the lowest MMR in the developed world with 4 deaths per 100,000 live births.[26] Japan, Germany, Canada, and the United Kingdom closely follow with MMRs of 5/100,000, 6/100,000, 7/100,000, and 9/100,000 respectively.[27] The United States was only one of thirteen countries, including North Korea and Zimbabwe, that has experienced an increase in MMR since 1990.[28] Currently, it is statistically safer to give birth in Saudi Arabia or China than it is to give birth in the United States.[29] To make matters worse, according to the CDC, there is a notable racial and ethnic disparity regarding maternal mortality in the United States.[30] For example, Black women are three times more likely to die from childbirth or pregnancy complications than are white women.[31] The maternal mortality rate for Black women is 40 per 100,000 live births, and the rate for women of other non-white races is 17.8 per 100,000 live births.[32] These numbers are disturbing compared to the 12.4 deaths per 100,000 live births for White women.[33]

24. *Id.* at 92.

25. Bingham, *supra* note 9.

26. *The World Factbook: Maternal Mortality Ratio*, CENT. INTELLIGENCE AGENCY, https://www.cia.gov/library/publications/the-world-factbook/rankorder/2223rank.html [https://perma.cc/U9JQ-ZF7D] (last visited Jan. 31, 2020).

27. *Id.*

28. For a graphical representation of this trend, *see* Julia Belluz, *California Decided It Was Tired of Women Bleeding to Death in Childbirth*, VOX, https://www.vox.com/science-and-health/2017/6/29/15830970/ [https://perma.cc/6UGF-GMM6] (last updated Dec. 4, 2017).

29. Yasmin H. Neggers, *Trends in Maternal Mortality in the United States*, 64 REPROD. TOXICOLOGY J. 72, 72 (2016).

30. *CDC Surveillance*, *supra* note 13.

31. *Id.*

32. *Id.*

33. *Id.* For a graphical representation of these and related data points, *see Bipartisan Legislation Promotes State Maternal Mortality Review Committees*, PREECLAMPSIA FOUND. (Mar. 2, 2017),

According to a study by BMC Public Health, roughly thirty-one percent of the dramatic MMR increase is attributable to an enhancement in death certificate coding and identification.[34] Until 1998, the CDC categorized maternal death based on the WHO's Internal Classification of Diseases (ICD) version 9 (ICD-09) codes.[35] But, in 1998, the WHO released ICD-10, which contained an increased number of codes attributed to maternal death.[36] The ICD-10 also created codes ascribed to late maternal death, defined as deaths of women "from direct or indirect obstetric causes more than 42 days but less than one year after termination of pregnancy."[37] Following the ICD-10 update in 1998, a new version of the national death certificate (the U.S. Standard Certificate of Care) was introduced in 2003.[38] This revised death certificate contained an added checkbox on the form in order to classify the pregnancy status of female decedents.[39] The addition of the checkbox to identify pregnancy status allowed for fewer pregnancy-related deaths to go unreported. The new ICD-10, coupled with the new U.S. Standard Certificate of Care checkbox, enhanced the United States' method of identifying pregnancy-related deaths, which lead to more maternal death reporting, and, in turn, directly correlated with the increase of the United States' MMR.[40]

Unfortunately, this enhanced identification of maternal death only accounts for a third of the increased death rate.[41] The rest can be explained by the three leading causes for maternal death in the United States and world-wide: (1) hemorrhage; (2)

https://www.preeclampsia.org/act2savemoms/ [https://perma.cc/6VGA-8T7X].

34. Daniel B. Nelson et al., *Population-Level Factors Associated with Maternal Mortality in the United States, 1997–2002*, 18 BMC PUB. HEALTH 1, 4 (2018).

35. Callaghan, *supra* note 21.

36. *Id.*

37. *Id.*

38. *Id.*

39. Nelson, *supra* note 34, at 2.

40. *Id.* at 2–3.

41. *Id.* at 4.

pregnancy-related hypertensive disorders; and (3) infection.[42] With extensive research and effort, one state in particular has demonstrated that these leading causes are preventable and solvable.

II. CALIFORNIA HAS SUCCESSFULLY COMBATED MATERNAL DEATH OVER THE PAST DECADE

California is the one state that has managed to decrease its MMR over the past ten years. While the rest of the United States has seen a substantial increase, between 2006 and 2013, California's maternal mortality declined by over fifty-five percent,[43] from 16.9 deaths per 100,000 live births to 7.3 deaths per 100,000 live births. California's MMR remains in continual decline today,[44] while the United States' MMR continues to increase. This decrease was no fluke—it was the result of a statewide initiative, started in 2006 by the California Department of Public Health (CDPH), to counteract the state's then-egregious death rate.[45] Since California's total annual birth count is 500,000—accounting for roughly one of every eight births in the United States[46]—the CDPH acknowledged that it was a grave problem worth addressing.

The CDPH oversaw the creation of the California Maternal Quality Care Collaborative (CMQCC), a public-private partnership invested in improving maternal care in the state of California.[47] The CMQCC's four-step approach focused on: (1)

42. Bingham, *supra* note 9.

43. Michael Ollove, *More U.S. Women Dying from Childbirth. How One State Bucks the Trend*, PEW CHARITABLE TRUSTS (Oct. 23, 2018), https://www.pewtrusts.org/en/research-and-analysis/blogs/stateline/2018/10/23/more-us-women-keep-dying-from-childbirth-except-in-this-state [https://perma.cc/B9QM-EMRB] [hereinafter *One State Bucks the Trend*].

44. For a graphical representation of California's maternal-mortality rate from 1999 to 2013, *see* Belluz, *supra* note 28.

45. Elliot K. Main et al., *Addressing Maternal Mortality and Morbidity in California Through Public-Private Partnerships*, 37 HEALTH AFFAIRS 1484, 1485 (2018).

46. *Id.* at 1490.

47. *Id.* at 1484.

linking public health surveillance to actions; (2) mobilizing a broad range of public and private partners; (3) developing a rapid-cycle Maternal Data Center to support and sustain quality improvement initiatives; and (4) implementing a series of data-driven large-scale quality improvement projects.[48]

A. Step One—Link Public Health Surveillance to Action

The first step in the CMQCC'S four-step approach, linking public health surveillance to action, was creating the California Pregnancy Associated Mortality Review (CPAMR) project.[49] The CPAMR was created in order to launch in-depth case reviews of all maternal deaths in the state of California.[50] The CPAMR is composed of maternity, perinatal, and public health clinical experts[51] who ascertain: (1) causes of death; (2) demographic characteristics of the decedents; (3) contributing factors; and (4) opportunities for future improvement.[52] After an in-depth epidemiologic investigation of each case, the CPAMR enters the causes of death and potential intervention strategies into a central database, communicates its findings and recommendations to public and clinical stakeholders, develops quality improvement kits, and implements large-scale quality improvement by implementing the toolkits into regular hospital practice.[53]

The CPAMR focused the first two years of the initiative on an in-depth investigation on obstetric hemorrhage and preeclampsia, two of the most preventable causes of maternal death in California.[54] The results were then forwarded to specialized task forces in order to disseminate recommendations

48. *Id.* at 1485.

49. CAL. DEP'T OF PUB. HEALTH, CALIFORNIA PREGNANCY-ASSOCIATED MORTALITY REVIEW, REPORT FROM 2002 TO 2007 MATERNAL DEATH REVIEWS 7, 61 (2018).

50. *Id.* at 7.

51. Main, *supra* note 45, at 1485.

52. *Id.* at 1485–86.

53. *Id.* at 1486.

54. Kimberly Gregory, *Translation Activities*, *in* CALIFORNIA PREGNANCY-ASSOCIATED MORTALITY REVIEW, REPORT FROM 2002 TO 2007 MATERNAL DEATH REVIEWS, at 61–62 (2018).

and strategies for clinician and hospital-based improvements[55]—this information was presented in the form of a "toolkit" on each major cause of maternal death. These toolkits provide: (1) examples of evidence-based practices; (2) sample policies; (3) mini-reviews of key topics; (4) implementation recommendations; and (5) educational slide sets.[56]

B. Step Two—Engage Public and Private Actors

In order to be successful, the CMQCC recognized that it must mobilize a broad set of both public and private actors, including the American College of Obstetricians and Gynecologists, the Association of Women's Health, the Obstetric and Neonatal Nurses, the California Nurse-Midwives Association, the California Academy of Family Physicians, the Hospital Quality Institute, the California Hospital Association, Medicaid, and the Alliance for Innovation on Maternal Health Program (AIM).[57] The CMQCC engages its public and private actors by promoting regular communication, encouraging data-sharing, and engaging everyone in quality-improvement that engage, motivate, and incentivize stakeholders and actors.[58] Each of these individual entities does its part in supporting and spreading the initiative by way of newsletters, regional conferences, co-sponsorship of improvement collaboratives, speaker networks, and more.[59]

C. Step Three—Low Burden Rapid Data System

The CMQCC has enlisted the support and participation of many public and private entities through a low burden, rapid data system. The CMQCC created the Maternal Data Center (MDC), which collects data less than forty-five days old, immediately creates data linkages about a cause of death, and then provides a range of suggested measures in order to help hospitals and clinicians improve the quality of care they provide.[60] The MDC was created with these key features in mind: (1) a low

55. *Id.* at 61.

56. *Id.*

57. Main, *supra* note 45, at 1487.

58. *Id.*

59. *Id.*

60. *Id.*

burden/low cost data collection and data entry; (2) flexibility; (3) the ability to benchmark (in order to compare hospitals); and (4) a user-friendly interface.[61]

The MDC is a real-time data center that uses a combination of deterministic and probabilistic algorithms to automatically upload and link birth-certificate data, as well as mother and child hospital-discharge data from each member hospital.[62] This automated system covers ninety-eight percent of all data elements required in normal data collection, which significantly reduces the burden of data collection for hospitals.[63] MDC's shared metrics and constant stream of communication regarding quality-improvement reports create transparency; this transparency, in turn, encourages progress and incentivizes participating hospitals to adapt for their patients' sake.

D. Step Four—Implement Focused Public Health and Clinical Intervention Projects

After creating the CPAMR, enlisting the involvement of numerous public and private actors, and creating a highly effective, low-burden data system, the CMQCC solidified its position to begin interventions. The two most effective ways that the CMQCC has implemented public health and clinical interventions are quality improvement toolkits and learning collaboratives.[64]

As described above in Section II(a), multidisciplinary task forces created quality-improvement toolkits to address concerns that the CPAMR committees identified.[65] The first two California Toolkits were created for obstetric hemorrhage and preeclampsia, both of which were highly successful. Ninety-two percent of California hospitals adopted and implemented the Obstetric Hemorrhage Toolkit while seventy-five percent adopted the Preeclampsia toolkit; each has over 10,000 downloads.[66]

61. *Id.* at 1488.

62. *Id.*

63. *Id.*

64. Gregory, *supra* note 54.

65. *Id.*

66. *Id.*; Caitlin Burke, *California's Maternal Deaths Nearly Halved Even as the U.S. Rate Went Up. Here's What They Did*, FIERCE HEALTHCARE (Sept. 4, 2018, 4:00 PM), https://www.fiercehealth

If California had not focused primarily on the first three steps outlined above, it could not have properly reached this result. Step one created a focused, narrow, and effective call to action after extensive research and trend-analysis. Step two attracted both public and private attention across the health care spectrum as leverage to engage a large number of California hospitals and clinicians. Step three created a rapid-cycle data system that plays a vital role in quality-improvement initiatives. This made the final step, implementing focused public health and clinical intervention projects, the easiest. Because of the solid foundation that the CMQCC laid, it only made sense for everyone to join the movement to improve the quality of health care for new mothers.

This four-step approach helped California achieve something that the rest of the United states has not: a rapidly decreasing MMR over the past decade. If the rest of the United States were to follow California's four-step approach, it is likely that the national MMR would likewise dramatically decrease.

E. Landscape in Other States

Although over forty states have attempted to establish central bodies comparable to California's CMQCC in order to better address the maternal mortality crisis, " . . . no other state has developed as thorough a system of improvements as California's."[67] In fact, "California is currently the only state showing consistent reductions in maternal mortality" as of 2018.[68] Outside of attempting to create central bodies similar to California's, a handful of states, including Florida, Massachusetts,

care.com/hospitals-health-systems/a-group-california-hospitals-halved-maternal-deaths-here-s-how-they-did-it [https://perma.cc/H3LV-TMUN].

67. Michael Ollove, *A Shocking Number of U.S. Women Still Die of Childbirth. California is Doing Something About That*, WASH. POST (Nov. 4, 2018, 12:00 PM), https://www.washingtonpost.com/national/health-science/a-shocking-number-of-us-women-still-die-from-childbirth-california-is-doing-something-about-that/2018/11/02/11042036-d7af-11e8-a10f-b51546b10756_story.html [https://perma.cc/B9QM-EMRB].

68. Amber Bellazaire & Erik Skinner, *Preventing Infant and Maternal Mortality: State Policy Options*, NAT'L CONF. ST. LEGIS. (July 3, 2019), https://www.ncsl.org/research/health/preventing-infant-and-maternal-mortality-state-policy-options.aspx [https://perma.cc/MZU9-8NCC].

and Ohio, have sought alternative ways to identify areas of improvement by enabling the sharing of birth certificates and hospital discharge records[69], as well as creating individual Perinatal Quality Collaboratives.[70]

Currently, thirty-eight states have maternal mortality review committees that are recognized by the CDC, and several more states are in the process of creating them.[71] In total, forty-six states and the District of Columbia either have a maternal mortality review committee, are in the process of implementing one, or have some model for reviewing maternal death outside of an official maternal mortality review committee.[72] Unfortunately, studies have found that there is practically no statistical difference in MMR for states with legislation compared to states without legislation or committees (18.4/100,000 vs. 22.2/100,000).[73] In fact, fifty-three percent of states with an MMR higher than 25/100,000 have active or pending legislation, suggesting that despite individual state efforts to address maternal mortality, no other state has achieved the success that California has achieved.[74]

The data demonstrates that a majority of states have attempted and failed to reduce their individual MMRs through a variety of methods. In contrast, California has effectively solved this issue. Instead of further allowing states to struggle on their own to solve a problem that already has an ascertainable solution,

69. *One State Bucks the Trend*, *supra* note 43.

70. *Perinatal Quality Collaboratives Fact Sheet*, ASS'N OF ST. AND TERRITORIAL HEALTH OFFICIALS, https://www.astho.org/Programs/Prevention/Maternal-and-Child-Health/Perinatal-Quality-Collaboratives/ [https://perma.cc/M2B8-B4N9] (last visited Mar. 3, 2020).

71. Katy B. Kozhimannil et al., *Beyond the Preventing Maternal Deaths Act: Implementation and Further Policy Change*, HEALTH AFFAIRS (Feb. 4, 2019), https://www.acog.org/-/media/Departments/Government-Relations-and-Outreach/1-Health-AffairsBeyond-The-Preventing-Maternal-Deaths-Act.pdf?dmc=1&ts=20200126T2206310633 [https://perma.cc/2AX4-XGYC].

72. *Id.*

73. Adebayo Adesmo et al., *Current Status of State-Level Maternal Mortality Review Legislation in the United States*, 129 OBSTETRICS & GYNECOLOGY 1S, 26S (2017).

74. *Id.*

a federal call to action, encouraging and incentivizing states to adopt California's approach, will be more successful, time-effective, and cost-effective.

III. THE JOINT COMMISSION AND ITS ATTEMPT TO PREVENT MATERNAL DEATH

While governmental and state initiatives are one approach to solving the maternal death crisis, another approach is to address the issue by way of hospital regulations and guidance.

Hospitals in the United States are highly regulated[75] in order to ensure consistency, standardization, and high quality care across the nation.[76] For this reason, hospitals must meet a plethora of standards related to virtually all aspects of hospital functioning in order to be considered accredited hospitals.[77] Without accreditation status, hospitals cannot receive federal funding, such as Medicare and Medicaid reimbursements.[78] The federal standards set forth by the Center for Medicare and Medicaid Services (CMS) lay the foundation for accreditation requirements,[79] and either CMS or other CMS-deemed accrediting organizations are responsible for surveying each hospital and ensuring that all federal standards and elements of performance are met.[80] One of the many CMS-approved accreditation organizations is the Joint Commission (the Commission).

75. *Regulatory Overload Report*, AM. HOSP. ASS'N, https://www.aha.org/guidesreports/2017-11-03-regulatory-overload-report [https://perma.cc/K7ZB-BK92] (last visited Feb. 4, 2020).

76. *Id.*

77. *Id.*

78. Mary Lou Weden, *The Joint Commission vs. CMS Requirements: What's the Difference?*, R1 RCM (May 29, 2015), https://www.r1rcm.com/news/the-joint-commission-vs.-cms-requirements-whats-the-difference [https://perma.cc/SCH9-HG3T].

79. *Id.*

80. *Id.*

A. The Role of the Joint Commission

As of now, roughly ninety-eight percent of all hospitals are accredited hospitals,[81] eighty-two percent of which are accredited by the Commission.[82] The Commission, established in 1951,[83] is an independent, non-profit, CMS-approved organization that accredits roughly 21,000 hospitals and health care organizations nationwide.[84] The Commission strives to "continuously improve health care for the public . . . by evaluating health care organizations and inspiring them to excel in providing safe and effective care of highest quality and value."[85] The Commission's standards of accreditation must contain *at least* all of the CMS requirements, but the Commission also has the power to create additional, more specific standards.[86] Because the Commission is vested with the power to create more specific standards, the Commission is engaged in a continuous effort to keep its standards up-to-date according to ever-evolving health care improvements and statistics.[87]

81. Trisha Torrey, *EMTALA: The Emergency Medical Treatment and Labor Act*, VERY WELL HEALTH, https://www.verywellhealth.com/emtala-the-emergency-medical-treatment-and-labor-act [https://perma.cc/W7M4-MAA6] (last updated Dec 6, 2019).

82. *Facts About Joint Commission Accreditation and Certification*, THE JOINT COMM'N, https://www.jointcommission.org/-/media/deprecated-unorganized/imported-assets/tjc/system-folders/topics-library/accreditation_and_certification_10_09pdf.pdf?db=web&hash=D69C362F1F50C042F4C77C9F129322D6 [https://perma.cc/5WWF-Q5NX] (last visited Jan. 26, 2019).

83. *The Joint Commission: Over a Century of Quality and Safety*, THE JOINT COMM'N, https://www.jointcommission.org/-/media/tjc/documents/about-us/tjc-history-timeline-through-2019-pdf.pdf [https://perma.cc/LBS9-Y6VX] (last visited Jan. 26, 2019).

84. *Id.*; *History of the Joint Commission*, THE JOINT COMM'N, https://www.jointcommission.org/about-us/facts-about-the-joint-commission/history-of-the-joint-commission/ [https://perma.cc/P3Q3-KM3Q] (last visited Jan. 26, 2019).

85. *History of the Joint Commission*, *supra* note 84.

86. Weden, *supra* note 78.

87. *Facts About the Joint Commission*, THE JOINT COMM'N, www.jointcommission.org/assets/1/18/The_Joint_Commission_3_10.pdf [https://perma.cc/FBJ2-99WH] (last visited Jan. 26, 2019).

B. The Commission's New Maternal-Mortality Accreditation Requirements

In response to the increasingly dire maternal-mortality situation in the United States, the Commission finally acted. In August 2019, the Commission announced that it had carefully developed two new hospital accreditation standards related to maternal mortality.[88] The two standards specifically seek to address the "prevention, recognition, and timely treatment" of: (1) maternal hemorrhage and (2) severe hypertension and preeclampsia, and are projected to take effect in July 2020.[89]

The Commission developed these new accreditation standards based on the AIM Program maternal safety bundles, as well as on recommendations and research regarding best practices from the California Maternal Quality Care Collaborative and the American College of Obstetricians and Gynecologists.[90] In addition, the Commission worked closely with a Technical Advisory Panel (TAP) and Standards Review Panel (SRP) in order to gain expert advice.[91] The TAP was comprised of numerous subject-matter experts in the maternal health field, and the SRP was comprised of seasoned clinicians and hospital/health care administrators.[92]

The two new standards—P.C.06.01.01, entitled "Reduce the Likelihood of Harm Related to Maternal Hemorrhage," and P.C.06.01.03, entitled "Reduce the likelihood of Harm Related to Maternal Severe Hypertension/Preeclampsia"—contain thirteen specific elements of performance (EPs), which closely echo what

88. The new standards will appear under the Provision of Care, Treatment and Services (PC) chapter at PC.06.01.01 and PC.06.01.03 in the Comprehensive Accreditation Manual for Hospitals. Maureen Lyons, *New Joint Commission Standards Address Rising Maternal Mortality in the U.S.*, JOINT COMMISSION (Aug. 29, 2019), https://www.jointcommission.org/en/resources/news-and-multimedia/news/2019/08/new-joint-commission-standards-address-rising-maternal-mortality-in-the-us/ [https://perma.cc/FWY9-YGJL].

89. *Id.*

90. *Id.*

91. *Id.*

92. *Id.*

California and the AIM Program have been implementing.[93] These EPs include, among others: (1) using evidence-based tools to determine risk factors upon admission to labor and delivery, and to postpartum; (2) developing written, evidence-based procedures to identify and treat both conditions; (3) developing standard emergency-response procedures and medications; (4) stocking readily-available toolkits; (5) identifying required response-team personnel and providing detailed descriptions of their roles in an emergency; (6) providing role-specific education to all staff and providers who treat pregnant and postpartum patients; (7) conducting emergency-response drills at least annually; (8) educating patients and their families on risks, signs, and symptoms to be aware of, and so forth.[94]

These EPs capture the majority of best practices recommended by the AIM Program, the CMQCC, the ACOG, and numerous other health experts. By creating and executing these new standards, the Commission is attempting to implement what individual states and private actors have been struggling to achieve. Although this is an important improvement towards bettering maternal health, these new accreditation standards cannot, alone, solve this crisis because the Commission lacks the proper enforcement and oversight necessary to ensure that these new standards will actually be followed.

C. The New Accreditation Requirements are not Enough Because of the Commissions Lack of Enforcement Power

Although the Joint Commission has a heavy hand in hospital regulation, its enforcement practices are ineffective at best, and non-existent at worst. While there has been skepticism about the impact of the Commission's accreditation practices and enforcement, an investigation completed in 2017 revealed that the concern was not misplaced.[95] An unusual and unfortunate

93. *See* THE JOINT COMMISSION, *Provision of Care, Treatment, and Services standard for maternal safety,* 24 R3 REPORT 1 (Aug. 21, 2019).

94. *See id.*

95. *See* Stephanie Armour, *Hospital Watchdog Gives Seal of Approval, Even After Problems Emerge*, WALL STREET J. (Sept. 8, 2017), https://www.wsj.com/articles/watchdog-awards-hospitals-seal-of-approval-even-after-problems-emerge-1504889146 [https://perma.cc/C7WY-MUH5].

situation that took place at a hospital in Massachusetts in early 2014 sparked the investigation by the *Wall Street Journal*.[96] After a young pregnant mother died from preeclampsia because her high blood pressure went untreated, and two babies passed away shortly after that (within six weeks of each other), CMS reported that "[t]he failure to provide quality medical care resulted in the death of all three patients."[97] Despite these three unrelated fatal incidents, the Commission neither revoked the hospital's accreditation status nor penalized the facility.[98] Instead, the Commission allowed the hospital to continue to operate and promote itself "as fully accredited, despite being out of compliance with safety requirements to participate in Medicare."[99] Furthermore, the Commission even named the hospital as a "top performer" in 2013 in the areas of surgical care and heart failure.[100] It is quite unsettling that the Commission, the organization most responsible for hospital regulation and compliance, not only turned a blind eye to fatal noncompliance, but also awarded that same hospital the title of top performer in other areas of medicine.

Unfortunately, this is not a stand-alone incident. The Wall Street Journal investigation revealed that the Commission revokes the accreditation status of less than 1% of *noncompliant* hospitals.[101] In 2014 alone, 350 hospitals nationwide were reported to be in serious violation of Medicare requirements, yet the Commission did not revoke their accreditation status.[102] Further, over one-third of all accredited hospitals had reported violations in 2014, 2015, and 2016.[103] Most appallingly, over thirty distinct hospitals in 2014 were able to maintain their accreditation status despite their violations being labeled by the CMS as so significant

96. *See id.*

97. *Id.*

98. *Id.*

99. *Id.*

100. *Id.*

101. *Id.*

102. *Id.*

103. *Id.*

that "they caused, or were likely to cause, a risk of serious injury or death to patients."[104]

The painful truth of the matter is that the Commission allows hundreds of hospitals in violation of safety requirements to continue operating and promoting themselves under the Commissions "Gold Seal of Approval."[105] An additional 2018 study conducted by the BMJ, a well-respected international medical journal, revealed that there is "no meaningful association between private accreditation [by the Joint Commission] and mortality rates" among US hospitals.[106] This study sought to determine whether or not accreditation by the Joint Commission resulted in better health outcomes for patients, and concluded that in fact, it did not.[107] Given the outcome of this study, the BMJ authors suggest that, perhaps, the United States should focus less on accreditation and more on developing a better solution: "If we are to continue to use accreditation—and spend the substantial sums of money [that it] require[s]— then we should consider substantially rethinking our accreditation process."[108]

In 2018, the House Energy and Commerce Committee requested information from CMS, the Joint Commission, and three other CMS-deemed accrediting organizations regarding how they conduct their surveys and why there is a "disconnect between their results and what the state survey agencies find."[109] This committee seeks information regarding: (1) contracts between the accreditors and CMS, (2) reported complaints, (3) correspondence about adverse events, and (4) disparities between accreditor and state surveys, performance reviews and corrective

104. *Id.*

105. *Id.*

106. Miranda B. Lam et. al, *Association Between Patient Outcomes and Accreditation in US Hospitals: Observational Study*, THE BMJ 1, 6 (Oct. 10, 2018), available at https://www.bmj.com/content/bmj/363/bmj.k4011.full.pdf [https://perma.cc/6HRS-D7ZF].

107. *Id* at 1, 6.

108. *Id* at 7.

109. *Accreditation Processes for US Hospitals Under Scrutiny*, INT'L MED. TRAVEL J. (Apr. 9, 2018), https://www.imtj.com/news/accreditation-processes-us-hospitals-under-scrutiny/ [https://perma.cc/5SNN-ME5Y].

actions.[110] Until this seemingly drastic disconnect is attended to, new hospital accreditation requirements are likely an ineffective manor to solve the maternal mortality crisis.

The lack of enforcement and revocation by the Joint Commission, coupled with the seeming lack of meaningful association between accreditation and patient health outcomes, begs the question as to whether these new requirements will be of any benefit. Although these thirteen new requirements seem to be a step in the right direction, they may be fruitless in the face of this lack of enforcement and accountability. Without stronger enforcement power and accountability processes, it is unlikely that we will be able to truly reap the benefits of these best practices. In order to make an effective, enforceable change in the face of this crisis, action must be taken on the federal level.

IV. THE UNITED STATES TAKES A LONG-OVERDUE STEP TOWARDS PREVENTING MATERNAL DEATH

It was not until recently that an "unprecedented sense of urgency"[111] swept the United States regarding maternal death. Major news outlets began to hone in on the United States' seemingly unparalleled MMR and began publicizing both inspirational stories about mothers who survived life-threatening birth complications, and devasting tales of preventable maternal death.[112] As news outlets continued to educate the public about maternal mortality, concern slowly built up into a public "call to arms"[113] and a demand for change.

No tangible progress was made on the federal level until December 21, 2018, when President Trump signed the PMDA into law.[114] The purpose of this new law is to improve data reporting and investigation of maternal death within individual

110. *Id.*

111. Nina Martin, *"Landmark" Maternal Health Legislation Clears Major Hurdle*, PROPUBLICA (Dec. 12, 2018, 12:56 PM), https://www.propublica.org/article/landmark-maternal-health-legislation-clears-major-hurdle [https://perma.cc/F7SQ-UKWZ].

112. *Id.*

113. *Id.*

114. Preventing Maternal Deaths Act, Pub. L. No. 115-344, 132 Stat. 5047 (2018).

states.[115] While this new legislation is evidence of tangible progress, it has numerous pitfalls which render it potentially ineffective in the face of this crisis.

A. Preventing Maternal Deaths Act of 2018

After stalling in Congress for nearly two years,[116] the PMDA was finally enacted as a Federal law at the end of 2018.[117] The purpose of the PMDA is:

> [t]o establish or continue a Federal initiative to support State and tribal maternal mortality review committees, to improve data collection and reporting around maternal mortality, and to develop or support surveillance systems at the local, State, and national level to better understand the burden of maternal complications and mortality and to decrease the disparities among populations at risk of death and severe complications from pregnancy.[118]

This new law provides interested states with funding to either create new Maternal Mortality Review Committees (MMRCs), or to support already existing MMRCs. The MMRCs created or supported by the funding from this Act must include "multidisciplinary and diverse membership that represents a variety of clinical specialties,"[119] such as health officials, epidemiologists, statisticians, and other representatives from medical specialties that provide care to pregnant and postpartum women. They might include individuals such as obstetricians, family practice physicians, certified nurse midwives, medical examiners, and a plethora of others whose work revolves around peripartum or postpartum care.

115. *Id.*; *see* Martin, *supra* note 111; *see* Kozhimannil, *supra* note 71.

116. *See H.R. 1318 (IH)—Preventing Maternal Deaths Act of 2017*, GOVINFO, https://www.govinfo.gov/app/details/BILLS-115hr1318ih [https://perma.cc/LH2L-XZEX] (last visited Mar. 13, 2020) (citing the last action date listed to illustrate stalling in congress).

117. Preventing Maternal Deaths Act, Pub. L. No. 115-344, 132 Stat. 5047 (2018).

118. 42 U.S.C. § 247b-12 (2018).

119. Preventing Maternal Deaths Act, Pub. L. No. 115-344, 132 Stat. 5047 (2018).

The MMRCs created or supported by this Act will undertake serious data collection and review relating to maternal mortality within the state.[120] Among a number of requirements, MMRCs will most importantly be tasked with reviewing data and investigating maternal death cases in order to: (1) identify adverse outcomes that may cause pregnancy-related death; (2) identify trends, patterns, and disparities in adverse outcomes; and (3) develop recommendations based on the summaries and information collected.[121] MMRCs will work alongside each individual state's Vital Statistics Unit to collect maternal death data and statistics.[122] The Vital Statistics Unit of each state will: (1) match each death record associated with a pregnancy-related death with either a live birth certificate or an infant death record for the purpose of identifying deaths of women that occurred during or within one year of pregnancy; (2) identify the underlying or contributing cause of each pregnancy-related death; (3) collect the necessary data from medical examiners and coroner reports; and (4) use other methods, such as random sampling of reported deaths, to identify maternal deaths.[123] With this information, each MMRC is equipped with the tools needed to identify patterns and trends and to create recommendations that, if implemented, would potentially reduce maternal death.

Each MMRC is required to provide the CDC with an annual report that includes: (1) the MMRC's data, findings, and recommendations for that fiscal year; and (2) information regarding whether or not the MMRC implemented any recommendations from the *previous* fiscal year.[124] This communication with and approval by the CDC is required to ensure that the MMRCs are using best practices in order to collect, review, and analyze maternal death data.

B. Critique of the Legislation

Although the PMDA is a valiant attempt by Congress to promote the change that California has proven to be possible, it

120. *Id.*

121. *Id.*

122. *Id.*

123. *Id.*

124. *Id.*

is less specific, less involved, and will likely be less effective than California's approach. In order to witness better results, a federal call to action to amend the PMDA to fit California's initiative is crucial.

While the passage of this law is certainly groundbreaking, it is not enough to solve the maternal death crisis in the United States. Though the PMDA adequately addresses the key elements of creating MMRCs and outlines what their duties are, Congress did not address what happens next. The law's four primary defects are: (1) the lack of uniformity across MMRCs; (2) the lack of specificity regarding implementation; (3) the law's voluntary nature; and (4) the law's sole reliance on MMRCs.

Currently, thirty-eight states have MMRCs that are recognized by the CDC, and several more states are in the process of creating MMRCs.[125] In total, forty-six states and the District of Columbia either have an MMRC, are in the process of implementing an MMRC, or have some model for reviewing maternal death outside of an official MMRC.[126] Naturally, it follows that MMRCs created, run, and implemented by different states with different committee members will operate differently. There is currently a large discrepancy among MMRCs regarding how data is collected, which data is collected, how frequently results are reported, to whom results are reported, who has access to the results, and how the results are used.[127] Without a focus on consistency and uniformity, MMRCs will likely function differently, produce different results, and will in turn produce varying and unpredictable recommendations from state to state.

Additionally, regardless of the inconsistency across varying MMRCs, the important data, statistics, and recommendations that results from each MMRC are not useful if they are not accessible. Data on trends, disparities, and potential recommendations must be clearly communicated to hospitals, physicians, and the general public in order to raise awareness and implement change. Unfortunately, however, this new law's reach ends once the MMRC is created—there is no mention of how to disseminate or implement the recommendations that the MMRCs

125. Kozhimannil, *supra* note 71.

126. *Id.*

127. *Id.*

are being funded to formulate.[128] Without explicit instructions as to how the new information should be relayed and circulated to medical professionals, hospitals, women, and families, it is unlikely that the information will be spread in an effective manner. Worse yet, if the information cannot be utilized in an efficient manner, then these recommendations will go to waste, change will be unforeseeable, and the prevention of maternal death will likely not be achieved.

Third, it is important to note that this law merely gives individual states the *option* to participate. It neither requires all states to participate, nor does it incentivize states to participate—it simply aids those states that are willing and interested.[129] If states are not required to partake in this initiative, states may elect not to. On the other hand, states that elect to participate may not last long without an incentive. While maternal health and the steadily increasing national MMR are especially important, some states may think that there are more pressing issues to which they should devote time, money, and resources. States have the ultimate discretion over whether or not they participate, and there is no real incentive to encourage participation. While there is data that at least thirty-eight states do have CDC-recognized MMRCs, more should be done to encourage the rest of the nation to join.

Lastly, the burden created by this law is almost entirely delegated to the MMRCs. In theory, it is understandable to delegate all of the work to the committees, but in practice, it is slightly unrealistic. Creation of an overarching collaborative, similar to the approach that California adopted in 2006,[130] would reduce the MMRCs' workload. These collaboratives, discussed in further detail in Section III of this note, are public-private partnerships tasked with disseminating the information and soliciting the support of hospitals, physicians, and other related actors. Meanwhile, the actual review committee is simply concerned with data-review and formulating recommendations. This would relieve the pressure the MMRCs now face and allow for a more focused, manageable workload.

128. *See* Preventing Maternal Deaths Act, Pub. L. No. 115-344, 132 Stat. 5047 (2018).

129. *See id.*

130. California created the CMQCC in 2006.

Although this law, on its face, seems like the miracle that the United States has been waiting for, its lack of uniformity, absence of implementation standards, voluntary nature, and the unrealistic burden that it places on MMRCs will likely hinder meaningful success. Thus, I propose that Congress amend the PMDA in order to address these four shortcomings by echoing the specificity, uniformity, and implementation standards set forth by the California initiative and the Commission's new accreditation standards.

V. INCREASING AWARENESS AND MOTIVATING CHANGE IN THE MEDICAL COMMUNITY

In addition to immediately amending the law and facilitating a legal solution, there must also exist a societal solution. Law without awareness is less effective. While there is new momentum within the United States to address maternal mortality, efforts must be made to continue to raise awareness, increase education, and motivate the medical community to take action. California has demonstrated that the solution is non-cumbersome; that small steps create a large result; that maternal mortality is a solvable dilemma. As a nation, in order to take what California has achieved and apply it on a national scale, there must be an initiative to motivate and incentivize healthcare professionals.

Today, physicians are burdened with their own epidemic: physician burnout.[131] Studies show that over fifty percent of physicians in the United States suffer from burnout,[132] a condition " . . . characterized by emotional exhaustion and depersonalization . . . a feeling of reduced personal accomplishment, loss of work fulfillment, and *reduced effectiveness*."[133] It is argued that one of the many factors contributing to physician burnout is the overly regulatory nature of the medical profession.[134] Physicians are inundated with the

131. *See generally* Sharona Hoffman, *Healing the Healers: Legal Remedies for Physician Burnout*, 18 YALE J. OF HEALTH POL'Y, L., & ETHICS 2, 59–114 (2018).

132. *Id.* at 60.

133. Rikinkumar S. Patel et al., *Factors Related to Physician Burnout and Its Consequences: A Review*, 8 BEHAV. SCI. 11 (2018).

134. Hoffman, *supra* note 131, at 76–77.

burdensome administrative requirements that come with the Electronic Health Records system[135] and all of its clerical requirements, insurance, quality improvement measures, extensive documentation, and more.[136] These requirements make a demanding job even more difficult.

With such a high level of physician burnout, medical professionals may be apprehensive about changes to the medical field that increase their already tremendous workload. What must be made clear, then, is that this solution is manageable for the already overworked physician. California has demonstrated that solving maternal mortality is a matter of awareness, education, and small-scale implementation across multiple levels. These steps require no additional regulatory requirements and consequently, add little to no additional burden.

In order to gain traction and approval by the medical community, there should be a federal campaign to: (1) address the fallacies surrounding the maternal mortality initiative (such as increased regulatory work); (2) increase awareness and education surrounding the maternal mortality initiative; and (3) incentivize the medical community to act.

CONCLUSION

The tide is clearly turning in the United States regarding combatting maternal mortality, as evidenced by the PMDA, California's highly successful maternal death initiative, and the Commission's new hospital accreditation requirements based on recommended best-practices. While the United States' efforts are commendable, they are not enough to properly address its deplorable and surprising maternal death rate. Much more can be done to raise awareness and, ultimately, save new mothers.

First, I recommend that Congress should immediately amend the PMDA to address its lack of uniformity across MMRCs, its lack of specificity regarding implementation, its voluntary nature, and its sole reliance on MMRCs. The amendment should address these four shortcomings by echoing the specificity, uniformity, and implementation standards set forth by the California initiative and the Commission's new accreditation standards.

135. *Id.* at 76–79.

136. *Id.* at 101.

Secondly, I recommend a national campaign to increase awareness and education, and to incentivize change within society-at-large and the medical community.

With these changes, it is highly likely that the United States would see a nationwide decrease in MMR, similar to the drastic decrease experienced in California over the past decade. Reversing this increasing MMR is possible, and these actions would bring the United States one step closer to saving more maternal lives.