5 STRATEGY

Foster an Optimal Maternity Care Workforce Composition and Distribution

INTRODUCTION

The *Blueprint for Advancing High-Value Maternity Care Through Physiologic Childbearing* aims to chart an efficient pathway to a maternity care system that reliably enables all women and newborns to experience healthy physiologic processes around the time of birth, to the extent possible given their health needs and informed preferences. The authors are members of a multistakeholder, multidisciplinary National Advisory Council that collaborated to develop this document.

Knowledge about the importance of perinatal physiologic processes for healthy maternal-newborn outcomes has come into sharper focus and garnered growing attention in recent years. Fostering healthy physiologic processes whenever possible is a preventive approach to health and safety for childbearing women and their newborns. Promoting, supporting and protecting these processes contributes to healthy outcomes in women and their fetuses/newborns. These processes facilitate such crucial matters as fetal readiness for birth and safety in labor, labor progress, reduced stress and pain in labor, safe maternal and newborn transitions and adaptations after birth, effective breastfeeding and secure maternal-newborn attachment. Growing evidence of longer-term effects of care around the time of birth also underscores the importance of fidelity to optimal maternal-newborn care. Leading professional organizations increasingly provide guidance for promoting, supporting and protecting these processes.

The Blueprint identifies six widely accepted improvement strategies to transform maternity care and a series of specific recommendations within each strategy. Each recommendation is presented with immediate action steps to directly or indirectly increase access to healthy perinatal physiologic processes. The recommendations and action steps address many barriers to optimal care in the current maternity care system.

The recommendations and action steps reflect unprecedented opportunities for innovation in the rapidly evolving health care environment. To realize system transformation, innovation must be accompanied by continuous evaluation and publication of results, refinement, and the scaling up and spreading of effective approaches.

This excerpt includes the full content from the Blueprint report for the fifth of the six improvement strategies, *Foster an Optimal Maternity Care Workforce Composition and Distribution*. View the full report and associated materials at **NationalPartnership.org/Blueprint**.

5 FOSTER AN OPTIMAL MATERNITY CARE WORKFORCE COMPOSITION AND DISTRIBUTION

STRATEGY OVERVIEW

The National Quality Strategy prioritizes workforce development.[1] Workforce improvement strategies must consider current trends in the supply of the three main types of maternity care providers – obstetricians, family physicians and midwives. Women and the health system face shortages of general obstetrician-gynecologists (OB-GYNs) due to[2]

- Aging workforce and current wave of retirements;
- Growing OB-GYN sub-specialization, with a declining proportion of general OB-GYNs attending births;
- Growing value of work-life balance among health professionals, leading to fewer overall average hours available per week and a preference for weekday, daytime, non-holiday hours;
- Low average age of stopping obstetrics portion of practice – in 2009, for women, the average age was 44 years and for men it was 52 years (and a professional satisfaction level that is among the lowest in medicine[3]);
- Migration of workforce to more urban, lower poverty areas (with 49 percent of U.S. counties in 2010 having no practicing OB-GYN); and
- Growing population of women of reproductive age outpacing the increase in OB-GYN residency positions.

Other non-obstetric maternity care providers offer essential and complementary care models and geographic distribution, but are fewer in number. Family physicians provide maternity care within a holistic, life-long model that aims to care for the entire family. Full-scope family physician maternity care inclusive of attending births has been steadily declining and is disproportionately available in rural, northwestern and intermountain areas of the country.[4] Most midwives are skilled in supporting physiologic childbearing. Certified nurse-midwives (CNMs) are licensed in all states and are steadily increasing in number.[5] Certified midwives (CMs) pass the same national certification exam as CNMs and are recognized in six states. The number of certified professional midwives, who exclusively practice in birth center and home birth settings, is growing; more than 30 states now provide a path to licensure for this newest national maternity credential. The number of hospital-based laborists (physician or midwife) is growing.[6] We did not find concerns about the size of the maternity nursing workforce, in part because maternity-specific training of nursing graduates generally occurs on the job. However, all maternity care clinicians are geographically maldistributed. Due largely to hospital maternity closures in rural areas, availability of maternity care in rural counties has reached crisis proportions, with 40 percent of counties having no OB-GYN or CNM in 2011.[7]

Most childbearing women are healthy, at low to moderate risk for complications and well-served by maternity care providers with education, skills, experience and practice in promoting, supporting and protecting healthy physiologic processes. Opportunities to advance high-value maternal newborn care include using collaborative practice and team-based care to make best use of available personnel; extending the duration of OB-GYN obstetrics practice; increasing the number of family physicians with maternity practice; and scaling up midwifery providers, who are well-positioned to provide high-value care and can be educated more quickly and at lower cost than physicians. The midwifery model consistently limits over- and underuse and can contribute

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STRATEGY OVERVIEW *continued*

to success as pressure grows in maternity care to deliver on cost and quality. While laborist performance has been uneven, this care model has the potential to hone and retain essential skills (e.g., vaginal breech and twin birth), address work-life balance (for the laborist and others), improve the traditionally lower professional satisfaction of obstetricians and offer skillful, high-quality care to birthing women. Finally, we must reverse the trend of diminishing access to maternity services in rural areas, which is unsafe for women and babies and incents otherwise unneeded care such as scheduled birth.

Recommendations here aim to accelerate optimal maternity care workforce composition and distribution to encourage care that fosters healthy perinatal physiologic processes in women and their fetuses/newborns, thereby improving outcomes, experiences and wise spending.

5a

BETTER DEPLOY AND RETAIN OBSTETRICIANS

Encourage obstetricians and other members of the maternity care team to practice at the top of their licenses. Extend average duration of maternity care practice of general OB-GYNs. Evaluate and publish results and refine new care models.

ACTION STEPS

- Advocate for federal funding to increase the number of obstetric residency slots in selected states where shortages exist or where significant population growth is anticipated.[8]
- Implement and evaluate sustainable collaborative practice models with team members practicing at the top of their license to optimally use the expertise of all team members, and prioritize obstetrician provision of care that others do not provide. Amend restrictive practice acts and restrictive institutional credentialing to maximize benefit of available family physicians and midwives.[9]
- To increase duration of obstetrics practice, develop workplace policies and programs to address obstetricians' need for work-life balance and other factors related to career satisfaction, such as offering flexible work schedules, part-time work and reduced practice management responsibility while avoiding the use of interventions to increase weekday labor and birth. Evaluate and publish results of the impact of these changes.[10]
- Publicize among OB-GYNs the relationship between robust quality improvement programs and steep declines in liability claims, payouts and premiums.[11]
- Evaluate and publish results of the impact of laborist programs on the professional satisfaction and duration of maternity care practice among both laborists and non-laborist obstetricians in the community.[12]
- Evaluate and publish results of the impact of participation in episode payment, maternity care home and quality improvement programs on the professional satisfaction of obstetricians and on the duration of their maternity care practice.[13]
- Develop programs to foster re-entry of eligible obstetricians who have stopped providing maternity care, such as dedicated fellowship programs.[14]

5b EXPAND FAMILY PHYSICIAN MATERNITY CARE PARTICIPATION

Increase the proportion of family physicians providing comprehensive and advanced maternity care. Evaluate and publish results and refine new care models.[15]

ACTION STEPS

- Implement national three-tier family medicine maternity care training and competency assessment standards. First, ensure that all residents have *basic* training for providing ambulatory maternal and newborn care and pre- and interconception care. Second, expand the number of and spaces in residency programs offering *comprehensive* (adding vaginal birth to scope of practice) and *advanced* (adding cesarean birth) maternity care training.[16] Include content on healthy perinatal physiologic processes, ways to foster them and impact of common labor intervention on them in all tiers.
- Increase the number of family medicine residency programs with attributes associated with post-graduation maternity care practice, for example, physician continuity from prenatal through postpartum care, participation in greater than a threshold number of births during residency and support for autonomous practice during residency training.[17]
- Expand the number of family medicine fellowships offering maternity care and rural care training, including content on healthy perinatal physiologic processes and how to foster them. Formalize fellowships through accreditation and certificates of added qualification.[18] Support residency graduates who intend to provide this care, as this group experiences a notable drop-off in actual maternity care practice, and support re-entry of eligible family physicians who have stopped providing maternity care.[19]
- Expand the family medicine Advanced Life Support in Obstetrics safety course and instructor training to include upstream prevention of complications and reduced use of invasive interventions by promoting, supporting and protecting healthy perinatal physiologic processes. Create and offer one-day add-on courses for those who have taken the current course.[20]
- Expand in-person American Academy of Family Physician (AAFP) Family-Centered Maternity Care course and Family-Centered Maternity Self-Study Package. Include content on healthy perinatal physiologic processes; ways to promote, support and protect these processes; and effects of common interventions on them.[21]

GROW THE MIDWIFERY WORKFORCE

Increase the number of midwives with nationally recognized credentials – CNMs, CMs and CPMs – in active maternity care practice. Ensure fair reimbursement and enable them to practice to the full scope of their training and competence. Evaluate and publish results and refine new care models.[22]

ACTION STEPS

- Transform the Graduate Nurse Education (GNE) demonstration into a GNE program or create another mechanism to routinely reimburse CNMs and other advanced practice nurse preceptors for basic, graduate and advanced practice nurse-midwifery education.[23]
- Identify other ways to increase funding for basic and graduate nursing, nurse-midwifery and certified professional midwifery education, prioritizing support for clinical preceptors.[24] Demonstrate the favorable return on investment to policymakers.[25]
- To better meet current demand, increase CNM and CM educational programs and program spaces for bachelor's prepared candidates without nurse training.[26]
- Extend legal recognition of CPMs and CMs to remaining states, and amend restrictive midwifery practice laws for all nationally recognized credentials (CM, CNM, CPM). Incorporate principles for model legislation that enable practice to the full scope of education and competence and align with Global Standards of the International Confederation of Midwives.[27]
- Ensure that by 2020 all new applicants for CPM licensure have successfully completed a midwifery educational program or pathway accredited by the Midwifery Education Accreditation Council and obtained the CPM credential. Ensure that those who previously obtained certification through a non-accredited pathway also meet guidance in the U.S. Midwifery Education, Regulation and Association Statement on the Licensure of Certified Professional Midwives.[28]
- Enact federal legislation encouraging state Medicaid programs to reimburse CPMs and CMs for services that their states authorize them to provide.[29]
- Encourage all Medicaid programs to reimburse midwives with nationally recognized credentials (CM, CNM, CPM) that are legally recognized to practice in the jurisdiction at 100 percent of the rate of physicians for the same service, following the precedent of nurse-midwifery reimbursement in the Medicare fee schedule.
- Diversify the growing midwifery workforce to more closely resemble the population of childbearing families from the perspective of race/ethnicity, language, geography and socioeconomic background. Approaches include pipeline/recruitment programs, distance education options, mentoring and peer support and inclusive professional organization practices.[30]

IMPLEMENT EFFECTIVE LABORIST CARE MODELS

Realize the potential of obstetrical and midwifery laborists to address many core challenges in contemporary maternity care and increase women's access to high-value care that promotes, protects and supports healthy physiologic perinatal processes. Evaluate and publish results and refine laborist models.

ACTION STEPS

- Compile and widely disseminate results of reports about the organization, financing and performance of laborist models and programs implemented to date. Identify attributes of high-value programs, including those that minimize over- and underuse, retain and build skills for safe vaginal birth (including twin, breech and assisted vaginal birth) and attain excellent outcomes.[31]
- Pilot and evaluate laborist models to continue to identify attributes of high-value programs, and develop new models that build on lessons learned.[32]
- Evaluate the impact of laborist models on professional satisfaction and retention/duration of practice of laborists and non-laborist obstetricians working within team-based care.[33]
- Evaluate the impact of laborist models on women's experience of and satisfaction with care.
- Pilot and evaluate the most effective ways to engage obstetricians, family physicians and midwives in laborist roles and in partnership with laborists.[34]
- Evaluate the role of laborists in family medicine residency programs, including support for basic, comprehensive and advanced maternity care training and contribution to maternity care practice within family medicine.[35]
- Evaluate the impact of laborists and different laborist models on malpractice liability.[36]
- Encourage the Core Competencies Task Force of the Society of OB-GYN Hospitalists to ensure that Core Competencies include knowledge of healthy perinatal physiologic processes, ways to support them (including when complications arise) and effects of common labor interventions on physiologic processes.[37] Encourage the Society to develop mechanisms for members to acquire and demonstrate these skills, knowledge and behaviors.
- Encourage the Society to develop continuing education courses, simulation courses, quality collaboratives and other programs to ensure that laborists have essential skills and knowledge for fostering physiologic childbearing whenever safely possible (e.g., for external version, vaginal twins, vaginal breech, assisted vaginal birth, manual rotation of occiput posterior fetuses) to complement the focus on acute and potentially emergent conditions.
- Identify effective ways to integrate laborists into team-based care to ensure effective communication, care coordination, laborist-nurse collaboration and women's safety and satisfaction across the phases of care.[38]
- As specialists in intrapartum care, laborists should develop and update as needed standardized evidence-based care pathways for safe perinatal practice that minimize over- and underuse and improve outcomes.[39]
- With development of a high degree of expertise in the appropriate care of low-risk laboring women and those at other levels of acuity (e.g., continued and consistent success with safe cesarean reduction), laborists should support residency and other education of maternal health clinicians in providing intrapartum care.

5e EXPAND MATERNITY CARE IN RURAL AND UNDERSERVED AREAS

Reverse the trend of loss of maternity services in rural and underserved areas to improve timely access to safe, high-quality maternity care and avoid unneeded intervention. Evaluate and publish results and refine new care models.

ACTION STEPS

- Encourage Congress to enact the Improving Access to Maternity Care Act to enable placement of qualified National Health Service Corps clinicians in designated maternity care shortage areas, with the incentive of loan forgiveness.
- To retain local maternity services, health systems and other entities should increase the availability of tools and resources for immediate consultation and access to higher levels of care in remote, low-volume maternity units. These include video conferencing and other telehealth access to specialty expertise, electronic databases, clinical pathways, protocol cards and life flight. Evaluate their use and refine practice accordingly.[40]
- Building on interprofessional education, implement and evaluate innovative team-based care. Use flexible combinations of midwives, family physicians, general surgeons and obstetricians in hospitals, micro-hospitals and out-of-hospital settings. Provide adequate payment to sustain rural maternity services and give women timely access to safe, high-quality maternity care *(see: 4, Interprofessional Education)*.[41]
- Increase the number of general surgery residencies providing competence in selected obstetrical procedures for practice in rural areas. These procedures include cesarean birth and repair of third and fourth degree perineal tears.[42]
- Increase the number of family medicine fellowships with enhanced obstetric tracks that provide comprehensive and advanced maternity care competence, including performing cesarean births.
- Increase the number of family physicians with cesarean birth competence through greater access to preceptorships with family physicians, obstetricians or general surgeons with cesarean birth privileges.
- Increase the number of CNMs and CMs, including those with ultrasound, surgical first assist and vacuum-assisted birth competence, to work with obstetricians, family physicians and general surgeons in rural areas.[43]
- Ensure that family physicians and general surgeons who perform cesarean births have systems for timely consultation with obstetricians, general surgeons and family physicians, as appropriate.
- Increase the number of registered nurses with rural maternity nursing expertise.[44]
- To help address the unmet needs of childbearing women and families in rural and underserved areas, implement and evaluate maternity care homes to foster access to needed social and community services, develop and implement shared care plans and foster timely access to safe, quality maternal-newborn care *(see: 1, Delivery and Payment)*.
- To address the priority of a more diverse maternity care workforce and clinicians who will practice in their rural and underserved communities of origin, expand distance learning opportunities at all appropriate levels of education of obstetricians, family physicians, midwives and nurses, and expand training opportunities including clinical rotations and residencies in rural communities.[45]

Read the full Blueprint report at NationalPartnership.org/Blueprint.

Endnotes

[1] Agency for Healthcare Research and Quality (2017). *About the National Quality Strategy.* Rockville, MD: Agency for Healthcare Research and Quality. Retrieved 28 October 2017, from https://www.ahrq.gov/workingforquality/about/index.html

[2] Rayburn, W.F. (2017). *The Obstetrician-Gynecologist Workforce in the United States: Facts, Figures, and Implications.* Washington, D.C.: American Congress of Obstetricians and Gynecologists. Retrieved 25 October 2017, from https://m.acog.org/~/media/BB3A7629943642ADA47058D0BDCD1521.pdf

[3] Leigh, J.P., Tancredi, D.J., & Kravitz, R.L. (2009). Physician career satisfaction within specialties. *BMC Health Services Research, 9*(166). Retrieved 29 October 2017, from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2754441/

[4] Barreto, T., Peterson, L.E., Petterson, S., & Bazemore A.W. (2017). Family Physicians Practicing High-Volume Obstetric Care Have Recently Dropped by One-Half. *American Family Physician, 95*(12), 762. Retrieved 25 October 2017, from http://www.aafp.org/afp/2017/0615/p762.html

[5] American College of Nurse-Midwives and Accreditation Commission for Midwifery Education. (2015). *Midwifery Education Trends Report 2015.* Silver Spring, MD: American College of Nurse-Midwives. Retrieved 25 October 2017, from http://www.midwife.org/ACNM/files/ACNMLibraryData/UPLOADFILENAME/000000000295/ACNM-Midwifery-Ed-Trends-Report-Nov-2015.pdf

[6] Srinivas, S.K., Shocksnider, J., Caldwell, D., & Lorch, S. (2012). Laborist model of care: who is using it? *The Journal of Maternal-Fetal & Neonatal Medicine, 25*(3), 257-60. Retrieved 25 October 2017, from http://www.tandfonline.com/doi/abs/10.3109/14767058.2011.572206?journalCode=ijmf20

[7] Hung, P., Kozhimannil, K.B., Casey, M.M., & Moscovice, I.S. (2016). Why Are Obstetric Units in Rural Hospitals Closing Their Doors? *Health Services Research, 51*(4), 1546-60. Retrieved 25 October 2017, from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4946037/; Bushman, J.S. (2015). *The Role of Certified Nurse-Midwives and Certified Midwives in Ensuring Women's Access to Skilled Maternity Care.* Retrieved 23 October 2017, from http://www.midwife.org/acnm/files/ccLibraryFiles/Filename/000000005794/MaternityCareWorkforce-11-18-15.pptx

[8] See note 7, Bushman; see note 2.

[9] See note 7, Bushman; Avery, M.D., Montgomery, O., & Brandl-Salutz, E. (2012). Essential components of successful collaborative maternity care models: the ACOG-ACNM project. *Obstetrics and Gynecology Clinics of North America, 39*(3), 423-34. Retrieved 25 October 2017, from http://www.sciencedirect.com/science/article/pii/S0889854512000551; Pecci, C.C., Mottl-Santiago, J., Culpepper, L., Heffner, L., McMahan, T., & Lee-Parritz, A. (2012). The birth of a collaborative model: obstetricians, midwives, and family physicians. *Obstetrics and Gynecology Clinics of North America, 39*(3), 323-34. Retrieved 25 October 2017, from http://www.sciencedirect.com/science/article/pii/S0889854512000460

[10] See note 3.

[11] Sakala, C., Yang, Y.T., & Corry, M.P. (2013). Maternity care and liability: most promising policy strategies for improvement. *Women's Health Issues, 23*(1), e25-e37. Retrieved 27 February 2018, from http://www.whijournal.com/article/S1049-3867(12)00092-8/fulltext

[12] See note 3.

[13] See note 3; Pettker, C.M., Thung, S.F., Raab, C.A., Donohue, K.P., Copel, J.A., Lockwood, C.J., & Funai, E.F. (2011). A comprehensive obstetrics patient safety program improves safety climate and culture. *American Journal of Obstetrics & Gynecology, 204*(3), 215. e1-6. Retrieved 25 October 2017, from http://www.ajog.org/article/S0002-9378(10)02258-1/fulltext

[14] Manriquez, M., Cookingham, L.M., & Coonrod, D.V. (2012). Reentry into clinical practice in obstetrics and gynecology. *Obstetrics & Gynecology, 120*(2 Pt 1), 365-69. Retrieved 25 October 2017, from http://journals.lww.com/greenjournal/Abstract/2012/08000/Reentry_Into_Clinical_Practice_in_Obstetrics_and.26.aspx

[15] See note 4.

[16] Magee, S.R., Eidson-Ton, W.S., Leeman, L., Tuggy, M., Kim, T.O., Nothnagle, M., Breuner, J., & Loafman, M. (2017). Family Medicine Maternity Care Call to Action: Moving Toward National Standards for Training and Competency Assessment. *Family Medicine, 49*(3), 211-217. Retrieved 25 October 2017, from http://www.stfm.org/FamilyMedicine/Vol49Issue3/Magee211; Kozhimannil, K.B., Casey, M.M., Hung, P., Han, X., Prasad, S., & Moscovice, I.S. (2015). The Rural Obstetric Workforce in US Hospitals: Challenges and Opportunities. *The Journal of Rural Health, 31*(4), 365-72. Retrieved 25 October 2017, from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4580490/

[17] Sutter, M.B., Prasad, R., Roberts, M.B., & Magee, S.R. (2015). Teaching maternity care in family medicine residencies: what factors predict graduate continuation of obstetrics? A 2013 CERA program directors study. *Family Medicine, 47*(6), 459-65. Retrieved 25 October 2017, from http://www.stfm.org/FamilyMedicine/Vol47Issue6/Sutter459

[18] Eden, A.R. & Peterson, L.E. (2017). Impact of Potential Accreditation and Certification in Family Medicine Maternity Care. *Family Medicine, 49*(1), 14-21. Retrieved 25 October 2017, from http://www.stfm.org/FamilyMedicine/Vol49Issue1/Eden14

[19] Barreto, T.W., Eden, A.R., Petterson, S., Bazemore, A.W., & Peterson, L.E. (2017). Intention Versus Reality: Family Medicine Residency Graduates' Intention to Practice Obstetrics. *Journal of the American Board of Family Medicine, 30*(4), 405-406. Retrieved 27 February 2018, from http://www.jabfm.org/content/30/4/405.long

[20] American Academy of Family Physicians. (n.d.). *Advanced Life Support in Obstetrics (ALSO).* Leawood, KS: American Academy of Family Physicians. Retrieved 23 October 2017, from http://www.aafp.org/cme/programs/also.html

[21] American Academy of Family Physicians. (n.d.). *Family Centered Maternity Care Self-Study Package – Edition 7.1.* Leawood, KS: American Academy of Family Physicians. Retrieved 25 October 2017, from http://www.aafp.org/cme/cme-topic/all/family-centered-maternity.html

[22] Vedam, S., Stoll, K., MacDorman, M., Declercq, E., Cramer, R., . . . Powell Kennedy, H. (2018). Mapping integration of midwives across the United States: Impact on access, equity, and outcomes. *PLOS ONE, 13(2),* e0192523. Retrieved 27 February 2018, from http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0192523.

[23] U.S. Centers for Medicare & Medicaid Services. (2017). *Graduate Nurse Education Demonstration.* Baltimore, MD: U.S. Centers for Medicare & Medicaid Services. Retrieved 14 November 2017, from https://innovation.cms.gov/initiatives/gne/; see note 120.

[24] See note 7, Bushman.

[25] See note 7; see note 5.

[26] See note 5.

[27] Beal, M.W., Batzli, M.E., & Hoyt, A. (2015). Regulation of Certified Nurse-Midwife Scope of Practice: Change in the Professional Practice Index, 2000 to 2015. *Journal of Midwifery & Women's Health, 60*(5), 510-8. Retrieved 29 November 2017, from http://onlinelibrary.wiley.com/doi/10.1111/jmwh.12362/abstract; Osborne, K. (2015). Regulation of Prescriptive Authority for Certified Nurse-Midwives and Certified Midwives: 2015 National Overview. *Journal of Midwifery & Women's Health, 60*(5), 519-33. Retrieved 29 November 2017, from http://onlinelibrary.wiley.com/doi/10.1111/jmwh.12368/abstract; US Midwifery Education, Regulation, & Association. (2015). *Principles for Model U.S. Midwifery Legislation & Regulation.* Retrieved 23 October 2017, from http://www.usmera.org/wp-content/uploads/2015/11/US-MERALegislativeStatement2015.pdf; Yang, Y.T., Attanasio, L.B., & Kozhimannil, K.B. (2016). State Scope of Practice Laws, Nurse-Midwifery Workforce, and Childbirth Procedures and Outcomes. *Women's Health Issues, 26*(3), 262-7. Retrieved 25 October 2017, from http://www.whijournal.com/article/S1049-3867(16)00025-6/fulltext; National Association of Certified Professional Midwives. (2017). *CPMs: Midwifery Landscape and Future Direction: Licensure and Regulation.* Keene, NH: National Association of Certified Professional Midwives. Retrieved 29 October 2017, from http://nacpm.org/wp-content/uploads/2017/10/4C-Licensure-and-Regulation.pdf

[28] US Midwifery Education, Regulation, & Association. (2015). *Statement on the Licensure of Certified Professional Midwives (CPM).* Retrieved 25 October 2017, from http://www.usmera.org/wp-content/uploads/2015/11/US-MERALegislativeStatement2015.pdf; National Association of Certified Professional Midwives. (2017). *CPMs: Midwifery Landscape and Future Direction: Licensure and Regulation.* Keene, NH: National Association of Certified Professional Midwives. Retrieved 29 October 2017, from http://nacpm.org/wp-content/uploads/2017/10/4C-Licensure-and-Regulation.pdf; National Association of Certified Professional Midwives. (2017). *CPMs: Midwifery Landscape and Future Direction: Preparing for the Future: Recommendations for Midwives and Students.* Keene, NH: National Association of Certified Professional Midwives. Retrieved 29 October 2017, from http://nacpm.org/wp-content/uploads/2017/10/2B-Preparing-for-the-Future_Recommendations-for-Midwives-and-Students.pdf

[29] National Association of Certified Professional Midwives. (2017). *CPMs: Midwifery Landscape and Future Direction: Federal Recognition: History and Current Strategy of the MAMA Campaign*. Keene, NH: National Association of Certified Professional Midwives. Retrieved 29 October 2017, from http://nacpm.org/wp-content/uploads/2017/10/3A-Federal-Recognition-History-Current-Strategy-of-the-MAMA-Campaign.pdf; National Association of Certified Professional Midwives. (2017). *CPMs: Midwifery Landscape and Future Direction: Reimbursement and Employment*. Keene, NH: National Association of Certified Professional Midwives. Retrieved 29 October 2017, from http://nacpm.org/wp-content/uploads/2017/10/4E-Reimbursement-and-Employment.pdf

[30] See note 5; DeLibertis, J. (2015). *Shifting the Frame: A report on diversity and inclusion in the American College of Nurse-Midwives*. Silver Spring, MD: American College of Nurse-Midwives. Retrieved 25 October 2017, from http://www.midwife.org/acnm/files/ccLibraryFiles/Filename/000000005329/Shifting-the-Frame-June-2015.pdf; *Frontier Nursing University. (2017, 24 Jul). Frontier Nursing University Awarded $1,998,000 Nursing Workforce Diversity Grant*. Retrieved 25 October 2017, from https://globenewswire.com/news-release/2017/07/24/1056097/0/en/Frontier-Nursing-University-Awarded-1-998-000-Nursing-Workforce-Diversity-Grant.html

[31] Gussman, D. & Mann, W. (n.d.). *The Laborist: A Flexible Concept*. Washington, DC: American Congress of Obstetricians and Gynecologists. Retrieved 25 October 2017, from https://www.acog.org/About-ACOG/ACOG-Departments/Practice-Management-and-Managed-Care/The-Laborist---A-Flexible-Concept

[32] Srinivas, S.K. & Lorch, S.A. (2012). The laborist model of obstetric care: we need more evidence. *American Journal of Obstetrics & Gynecology, 207*(1), 30-5. Retrieved 25 October 2017, from http://www.ajog.org/article/S0002-9378(11)01299-3/fulltext

[33] Weinstein, L. (2015). Laborist to Obstetrician/Gynecologist-Hospitalist: An Evolution or a Revolution? *Obstetrics and Gynecology Clinics of North America, 42*(3)415-7. Retrieved 25 October 2017, from http://www.sciencedirect.com/science/article/pii/S0889854515000479

[34] DeJoy, S,A., Sankey, H.Z., Dickerson, A.E., Psaltis, A., Galli, A., & Burkman, R.T. (2015). The Evolving Role of Midwives as Laborists. *Journal of Midwifery & Women's Health, 60*(6), 674-81. Retrieved 25 October 2017, from http://onlinelibrary.wiley.com/doi/10.1111/jmwh.12350/abstract; Rosenstein, M.G., Nijagal, M., Nakagawa, S., Gregorich, S.E., & Kuppermann, M. (2015). The Association of Expanded Access to a Collaborative Midwifery and Laborist Model With Cesarean Delivery Rates. *Obstetrics & Gynecology, 126*(4), 716-23. Retrieved 25 October 2017, from http://journals.lww.com/greenjournal/fulltext/2015/10000/The_Association_of_Expanded_Access_to_a.5.aspx

[35] Baldor, R.A., Pecci, C.C., Moreno, G., Van Duyne, V., & Potts, S.E. (2017). A National CERA Study of the Use of Laborists in Family Medicine Residency Training. *Family Medicine, 49*(2), 114-121. Retrieved 25 October 2017, from http://www.stfm.org/FamilyMedicine/Vol49Issue2/Baldor114

[36] Veltman, L. (2015). Obstetrics Hospitalists: Risk Management Implications. *Obstetrics and Gynecology, 42*(3), 507-17. Retrieved 25 October 2017, from https://www.sciencedirect.com/science/article/pii/S0889854515000546; Srinivas, S.K. (2015). Potential Impact of Obstetrics and Gynecology Hospitalists on Safety of Obstetric Care. *Obstetrics and Gynecology Clinics of North America, 42*(3), 487-91. Retrieved 25 October 2017, from https://www.sciencedirect.com/science/article/pii/S0889854515000534

[37] Society of OB/GYN Hospitalists. (n.d.). *SOGH Core Competencies Task Force (CCTF)*. Pearland, TX: Society of OB/GYN Hospitalists. Retrieved 25 October 2017, from http://www.societyofobgynhospitalists.org/core-competencies

[38] American College of Obstetricians and Gynecologists' Committee on Patient Safety and Quality Improvement and Committee on Obstetric Practice. (2016). *Committee Opinion*, February (657). Retrieved 25 October 2017, from https://www.acog.org/Resources-And-Publications/Committee-Opinions/Committee-on-Patient-Safety-and-Quality-Improvement/The-Obstetric-and-Gynecologic-Hospitalist

[39] Ibid.; Metz, T.D., Allshouse, A.A., Gilbert, S.A.B., Doyle, R., Tong, A., & Carey, J.C. (2016). Variation in primary cesarean delivery rates by individual physician within a single-hospital laborist model. *American Journal of Obstetrics & Gynecology, 214*(4), 531.e1-531.e6. Retrieved 25 October 2017, from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4808612/

[40] Kozhimannil, K.B., Casey, M.M., Hung, P., Han, X., Prasad, S., & Moscovice, I.S. (2015). The Rural Obstetric Workforce in US Hospitals: Challenges and Opportunities. *The Journal of Rural Health, 31*(4), 365-72. Retrieved 25 October 2017, from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4580490/; Mann, S., McKay, K., & Brown, H. (2017). The Maternal Heath Compact. *The New England Journal of Medicine, 376*(14), 1304-1305. Retrieved 25 October 2017, from http://www.nejm.org/doi/full/10.1056/NEJMp1700485; Miller, K.J., Couchie, C., Ehman, W., Graves, L., Grzybowski, S., Medves, J., & Joint Position Paper Working Group. (2012). Rural Maternity Care. *Journal of Obstetrics and Gynaecology Canada, 34*(10), 984-991. Retrieved 25 October 2017, from http://www.sciencedirect.com/science/article/pii/S1701216316354147

[41] Ibid., Kozhimannil; Nethery, E., Gordon, W., Bovbjerg, M.L., & Cheyney, M. (2017). Rural community birth: Maternal and neonatal outcomes for planned community births among rural women in the United States, 2004-2009. Birth, doi: 10.1111/birt.12322. Retrieved 27 February 2018, from http://onlinelibrary.wiley.com/doi/10.1111/birt.12322/abstract; Miller, K.J., Couchie, C., Ehman, W., Graves, L., Grzybowski, S., Medves, J., & Joint Position Paper Working Group. (2012). Rural Maternity Care. Journal of Obstetrics and Gynaecology Canada, 34(10), 984-991. Retrieved 25 October 2017, from http://www.sciencedirect.com/science/article/pii/S1701216316354147; Becker's Hospital Review. (2017). *5 common questions about micro-hospitals, answered*. Chicago, IL: Becker's Hospital Review. Retrieved 25 October 2017, from https://www.beckershospitalreview.com/facilities-management/5-common-questions-about-micro-hospitals-answered.html; Deline, J., Varnes-Epstein, L., Dresang, L.T., Gideonsen, M., Lynch, L., & Frey, J.J. 3rd. (2012). Low primary cesarean rate and high VBAC rate with good outcomes in an Amish birthing center. *Annals of Family Medicine, 10*(6), 530-7. Retrieved 25 October 2017, from http://www.annfammed.org/content/10/6/530.long; Munro, S., Kornelsen, J., & Grzybowski, S. (2013). Models of maternity care in rural environments: Barriers and attributes of interprofessional collaboration with midwives. *Midwifery, 29*(6), 646-52. Retrieved 29 October 2017, from http://www.sciencedirect.com/science/article/pii/S0266613812001040

[42] Doescher, M.P., Jackson, J.E., Fordyce, M.A., & Lynge, D.C. (2015). Variability in General Surgical Procedures in Rural and Urban US Hospital Inpatient Settings. *Final Report #142*. Seattle, WA: WWAMI Rural Health Research Center, University of Washington. Retrieved 25 October 2017, from http://depts.washington.edu/uwrhrc/uploads/General%20Surgery_%20Final_2015.pdf

[43] Tharpe, N.L. (2015). *The Midwife as Surgical First Assistant*. Silver Spring, MD: American College of Nurse-Midwives. Retrieved 25 October 2017, from http://www.midwife.org/acnm/files/ccLibraryFiles/Filename/000000005462/SurgicalFirstAssist-PREVIEW-062515.pdf; Clark, P.A. (2015). *Vacuum Assisted Birth in Midwifery Practice*. Silver Spring, MD: American College of Nurse-Midwives; American College of Nurse-Midwives. (2012). *Midwives' Performance of Ultrasound in Clinical Practice*. Silver Spring, MD: American College of Nurse-Midwives. Retrieved 30 November 2017, from http://www.midwife.org/ACNM/files/ACNMLibraryData/UPLOADFILENAME/000000000228/Ultrasound-Position-Statement-June-2012.pdf

[44] See note 41, Miller.

[45] American College of Obstetricians and Gynecologists. Task Force on Collaborative Practice. (2016). *Collaboration in practice: implementing team-based care*. Washington, DC: American College of Obstetricians and Gynecologists. Retrieved 26 October 2017, from https://www.acog.org/Resources-And-Publications/Task-Force-and-Work-Group-Reports/Collaboration-in-Practice-Implementing-Team-Based-Care; see note 30, Frontier Nursing University.

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