Seminars in Perinatology ▮ (2017) ▮▮▮–▮▮▮

Available online at www.sciencedirect.com

Seminars in Perinatology

www.seminperinat.com

Maternity care access, quality, and outcomes: A systems-level perspective on research, clinical, and policy needs

Katy B. Kozhimannil, PhD, MPA[a,*], *Rachel R. Hardeman, PhD, MPH*[b], *and Carrie Henning-Smith, PhD, MSW, MPH*[a]

[a]*University of Minnesota Rural Health Research Center, Division of Health Policy and Management, University of Minnesota School of Public Health, Minneapolis, MN*

[b]*Division of Health Policy and Management, University of Minnesota School of Public Health, Minneapolis, MN*

ARTICLE INFO

Keywords:
maternity care
equity
disparities
race
rural health
access
quality
birth outcomes

ABSTRACT

The quality of maternity care in the United States is variable, and access to care is tenuous for rural residents, low-income individuals, and people of color. Without accessible, timely, and high-quality care, certain clinical and sociodemographic characteristics of individuals may render them more vulnerable to poor birth outcomes. However, risk factors for poor birth outcomes do not occur in a vaccum; rather, health care financing, delivery, and organization as well as the policy environment shape the context in which patients seek and receive maternity care. This paper describes the relationship between access and quality in maternity care and offers a systems-level perspective on the innovations and strategies needed in research, clinical care, and policy to improve equity in maternal and infant health.

Introduction

Maternal morbidity and mortality have been rising in the United States, nearly doubling during the past 25 years.[1–3] Increases in childbirth-associated morbidity and mortality have been accompanied by restricted access to care for some groups[4,5] alongside rising rates of obstetric intervention without clear medical need.[6–8] Clinical strategies have begun to reverse these trajectories.[9–11] However, clinicians providing care during pregnancy and birth as well as their patients deserve a system of health care delivery, financing, and organization that supports evidence-based decision-making and adoption of emerging clinical guidance around maternity care access and management.

Clinicians can only influence outcomes for the patients who come to the hospital, clinic, or birth center, and the direct sphere of influence that clinicians have is generally limited to medical guidance and clinical services. Improving the outcomes of maternity care requires that policymakers, researchers, and health care delivery systems beyond clinical care support patients and clinicians in adopting evidence-based strategies that foster healthy pregnancy and childbirth. That is, patients must be able to get in the door for care and once they arrive, receive the necessary services, no more and

Support for this study was provided by the Office of Rural Health Policy, Health Resources and Services Administration, United States Department of Health and Human Services, PHS Grant no. 5U1CRH03717.

The work reported herein was done at the University of Minnesota School of Public Health.

*Correspondence to: 420 Delaware St SE, MMC 729, Minneapolis, MN 55455.

E-mail address: kbk@umn.edu (K.B. Kozhimannil).

http://dx.doi.org/10.1053/j.semperi.2017.07.005
0146-0005/

no less. Having access to the right care at the right time is a key component of quality. Access and quality are the two major issues affecting how clinicians can influence maternal and infant health outcomes. In addition, multiple other factors—and the intersection of these factors—affect need for, access to, quality, and outcomes of maternity care. These factors include clinical conditions, health insurance coverage, geographic location (rural or urban), and sociodemographic characteristics including race and ethnicity. To move toward the broad goal of equity in pregnancy and childbirth outcomes, this paper describes the relationship between access and quality in maternity care and offers a systems-level perspective on the innovations and strategies needed to achieve equity in research, clinical care, and policy.

Rising rates of morbidity and mortality and troubling disparities

Most patients enter pregnancy without anticipating major risks to their health. Yet every year at least 50,000 experience potentially life-threatening complications of childbirth.[1,2] Such complications include the need for blood transfusion, acute renal failure, shock, acute myocardial infarction, respiratory distress syndrome, and aneurysms.[1] Moreover, the rate of severe maternal morbidity doubled between 1998 and 2011,[2] as did maternal mortality between 1990 and 2013.[2,3] These trends raise concern for maternal health given that perinatal morbidity may affect a woman's immediate recovery (e.g., symptomatic anemia) and long-term physical health (e.g., risks related to cesarean) as well as her mental health (e.g., depression).[12,13] The United States is the only developed nation in the world with a rising maternal mortality rate. It ranks 60th in the world in maternal survival after childbirth. In 2013, 18.5 maternal deaths per 100,000 live births were reported in the United States, up from 12.4 in 1990.[3] Rates are widely acknowledged to be unacceptably high.

Not only does the United States compare poorly in an international context, but averages do not convey the long-standing racial and ethnic disparities in maternal and infant mortality. In the United States, black women and infants are 2–3 times more likely to die during childbirth as white women and infants, an appalling disparity that cannot be explained by differences in socioeconomic status. It is a gap that has remained unchanged for decades.[14,15] Disparities between rural and urban United States settings are also striking, with rural women suffering worse health outcomes and more limited access to health care services than urban women.[4,16,17] Recent findings point to hospital-level differences in the quality of obstetric care at rural hospitals[18,19] and at black- and Hispanic-serving hospitals.[20,21]

Access to maternity care

The first step toward achieving health equity in childbirth is to ensure that all patients have access to timely and appropriate care at all stages throughout their pregnancy, birth, and postpartum period. Access to maternity care is multifaceted and starts with early (first trimester) prenatal care.[22] Data from the 1970s and 1980s informed today's clinical standards, with evidence associating early and ongoing prenatal care with improved health outcomes, including lower rates of preterm birth and low birth weight.[22] Although access to early prenatal care is important,[23] it alone is not enough to ensure equitable birth outcomes.[24] More recent data reflect variability across subgroups of women in the association between prenatal care and improved birth outcomes, with adolescents seeing more consistent benefit,[23] and poor outcomes in perinatal mortality persisting for women of color, compared with white women, even with early access to prenatal care.[24]

Equitable maternity care access also must include appropriate and timely labor and delivery care, access to emergency obstetric care, and ongoing postpartum care, each of which are also crucial to maternal and infant health outcomes. However, there are significant barriers to accessing timely maternity care across all stages of pregnancy, birth, and the postpartum period. These barriers include financial and other structural and sociodemographic barriers, such as insurance status and geographic location.[25] Particularly for members of racial and ethnic minority groups, perceived discrimination and past experiences of discrimination when accessing health care services may inhibit care-seeking, including during the prental period.[26,27] Further, psychological and interpersonal concerns, such as not wanting others to know about a pregnancy, can inhibit access, especially early in the prenatal period.[28] Each of these barriers requires its own set of solutions and is deserving of policy, research, and clinical attention.

In the United States and around the globe, access to all levels of maternity care is also influenced by health systems, payment schemes, and availability of a well-trained maternity care workforce.[29,30] One proposed solution for addressing access issues is to broaden the scope of who can perform particular services; for example, training nurses to provide anethesia care.[30] Currently, states vary in their scope of practice laws related to care and in the associated differences in the supply and organization of their maternity care workforce.[16,31] Beyond the workforce, it is also necessary to have a physical space and the needed supplies with which to provide obstetric care.[29,30,32] However, numerous obstetric units have closed in recent years.[33] Although closings have occurred in both urban and rural communities, they have disproporionately affected rural areas[34] and differentially hinder access in communities with lower average incomes and an already limited health care workforce supply.[35] Closures of obstetric units not only affect access, but may also affect outcomes, including perinatal mortality.[33]

Variability in maternity care quality

The clinical evidence base in obstetrics is advancing rapidly. Yet, there are often long lags in translating this knowledge into clinical practice. For example, evidence regarding the harms of early-term elective delivery first surfaced in the 1970s and was validated by an abundance of studies