Preface

Why a Review of the Evidence Base for Interventions to Improve Reproductive and Perinatal Health Outcomes?

Over 2 decades ago, the Institute of Medicine (IOM) released its influential report *Preventing Low Birth Weight* (IOM, 1985), galvanizing and mobilizing community, state, and federal MCH practitioners and policy-makers to improve maternal and infant health status. Despite the development of numerous programs, initiatives, and approaches to address the delivery of care during the preconceptional, prenatal, and postpartum periods, the major indicators of maternal and infant morbidity and mortality in the US have not uniformly shown marked improvement during this time (Martin, Hamilton, Sutton, et al., 2009); most notably, racial/ethnic disparities in key maternal and infant health status measures have remained persistent, and in some cases, even increased. However, to date there has been no systematic effort to examine these interventions in a comprehensive fashion, or to specifically look at the evidence vis a vis their potential for reducing racial/ethnic disparities in reproductive and perinatal outcomes. Thus, the focus of this book.

Given that one of the major initiatives to improve reproductive and perinatal outcomes in the last 20 years has been the expansion of financial access to care, particularly during the prenatal period, a large portion of this book reviews the evidence for the public health interventions (as opposed to clinical interventions such as blood pressure checks, urinalysis, the use of risk assessment, fundal height measurement, etc.) that are incorporated into, or delivered concomitantly with prenatal care, such as depression screening and treatment, nutritional supplementation, smoking cessation programs, and prenatal case management. This book focuses on the contribution of these interventions to the overall improvement of reproductive and perinatal outcomes and their potential to reduce disparities in such outcomes between racial/ethnic groups in the United States.

We believe this book is an important undertaking, particularly since there has been an ongoing discussion of the prenatal care investment (Huntington & Connell, 1994; Fiscella, 1995; Strong, 2000). This discussion has arisen in response to the Medicaid expansions which increased the number of women with financial access to prenatal care (Kaiser Family Foundation, 2009), resulting in improved utilization, but not in associated decreases in prematurity and LBW (Martin et al., 2009). In addition, with the publication of studies showing no difference in perinatal outcomes with a reduced schedule of prenatal visits compared to a standard schedule of prenatal visits (McDuffie, Beck, Biscoff, Cross, & Orleans, 1996), and a recognition that in many Western European countries, the schedule of visits is often fewer but outcomes are better (Papiernik, 2007), it has become increasingly clear that more prenatal care (at least as measured by number of visits) in and of itself is not necessarily better.

Some of the expectation for significant positive changes in birth outcomes as the result of the Medicaid expansions was not likely justified, as many women eligible for Medicaid only due to
pregnancy do not access Medicaid and/or prenatal care early enough to allow for any potential impact (Simon & Handler, 2008). More importantly, the Medicaid expansions were not expected to have any effect on the pregnancy outcomes of the lowest income women, who were already covered by Medicaid during pregnancy, many of whom have multiple risk factors placing them at high-risk for poor birth outcomes (Guyer, 1990). Finally, beyond the numerous issues related to adequately defining and measuring prenatal care (Bell & Zimmerman, 2003; Misra & Guyer, 1998), the assumption of an independent impact of prenatal care alone on maternal and infant outcomes, disregards the current and historical context of women’s lives and the established contribution of this context to reproductive health and pregnancy outcomes.

Because there is both widespread disappointment at the “failure” of the Medicaid expansions to improve pregnancy outcomes over the last 2 decades as well as widespread acknowledgement of the conceptual and measurement issues related to establishing prenatal care’s effectiveness, it has been easy for some researchers and policy-makers to dismiss the relevance of increasing access and enhancing the quality of prenatal care as strategies for improving pregnancy outcomes. These circumstances provide the opportunity for us to reframe the issues pertaining to prenatal care effectiveness and advance our understanding of the contribution made by the various interventions and programs developed for women prior to, during, or soon after pregnancy, in improving their reproductive health and perinatal outcomes. A critical review of the evidence emphasizing the breadth and timing of such interventions as provided by this book, highlights the potential of a lifespan approach and creates the opportunity to consider the evidence for each of these interventions vis a vis their potential for reducing racial/ethnic disparities in reproductive and perinatal outcomes.

What’s Included in This Book?

This book focuses on a systematic review of the evidence for interventions that surround a woman’s childbearing years (see chapter by Kennelly for a description of methodological approaches used). It begins with a brief discussion of evidence-based medicine (EBM) and evidence-based public health (EBPH) by Handler, with a focus on the specific challenges of implementing EBPH. The principles and underlying assumptions of the scientific process to generate ‘evidence’ are then presented and critiqued by Aviles and Filc. Hogan, Shanahan and Rowley’s chapter outlines critical and methodological issues specific to evidence generation focused on reproductive and perinatal outcomes. Subsequent chapters focus on one or more interventions to improve reproductive and/or perinatal outcomes. The chapters span the childbearing years addressing family planning and abortion, access to and use of infertility services, specific aspects of preconception care, prenatal care overall, as well as public health interventions during the prenatal period (e.g., STD and HIV screening, smoking cessation, group prenatal care, use of doulas, prenatal case management, depression screening and treatment, nutrition supplementation, and screening and treatment for substance use) that extend, enhance, and complement prenatal care. Related topics, such as genetic disease screening, and domestic violence screening and counseling during pregnancy, were originally targeted for inclusion in the book but were ultimately not able to be included.

The book also includes a chapter on intrapartum interventions prompted by the spiraling rate of C-sections and the need to examine whether certain clinical interventions which may increase or decrease maternal and infant morbidity/mortality are differentially offered to and/or used by various racial/ethnic groups. Likewise, a chapter on perinatal regionalization examines whether this system, heralded as playing a major role in reducing infant mortality in the U.S., has additional potential for reducing racial/ethnic disparities in reproductive and perinatal outcomes by focusing beyond the prenatal and perinatal periods.
What Have We Learned?

Considered together, the reviews of the evidence in this book suggest that with respect to the effectiveness of prenatal care itself, promise may lie in more integrated care models in which “enhancements” are standardized and delivered as part of comprehensive high quality care within systems that are accessible to all women, rather than as “siloed” interventions. The evidence also suggests that going beyond the prenatal period to include well-women care across the lifespan may hold significant promise and potential not only for improving reproductive and perinatal outcomes, but for reducing disparities in these outcomes as well.

More generally, the chapters in this book reveal that the depth and range of the evidence varies with respect to both the demonstrated and potential effect of each intervention to reduce racial/ethnic disparities in reproductive and perinatal outcomes. Importantly, for many interventions, information about effects on racial and ethnic disparities does not exist or can only be inferred; for the most part, the studies reviewed tend to focus on improving outcomes in one or more populations but not necessarily on approaches to reducing disparities between populations. Likewise, in many cases, overall weak or modest effects might suggest potential for effectiveness but also point out difficulties related to the lack of theoretical models for how an intervention might produce an effect, inadequate or incomplete intervention implementation, lack of standardization of program models, as well as failure to move from targeted to universal implementation, thus leading to differential uptake of interventions. Additionally, several chapters caution that it is important to ensure that differential implementation of interventions (whether in quality or quantity) does not inadvertently lead to an increase in disparities, or possibly a decrease in disparities due to a worsening of outcomes for the majority population.

Despite the caveats and challenges raised by each chapter, when reviewed as an entire body of evidence for interventions to improve the reproductive health of women as well as perinatal outcomes, this book enables us to determine the “stuck points” for the field, and to identify the necessary steps for generating future evidence and improving practice to effectively address racial/ethnic disparities in reproductive and perinatal health. Importantly, this book makes clear that such an evidence-informed practice will need to recognize context and nuance, consider factors related to program/policy implementation, and appreciate the often distal relationship between public health interventions and health status outcomes. With these common understandings as the basis for action, it is our hope that this book will be a useful tool and reference for students, researchers, and practitioners alike as they pursue a wide variety of approaches to improve reproductive and perinatal health outcomes.

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References


Reducing Racial/Ethnic Disparities in Reproductive and Perinatal Outcomes
The Evidence from Population-Based Interventions
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