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Commentary

"Eating for Two": Excessive Gestational Weight Gain and the Need to Change Social Norms

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The current obesity epidemic has brought the topic of weight into focus, not only in scientific circles, but also pervasively through communities across America. The importance of living healthier has not fallen on deaf ears of the individuals affected, either. The vast majority of adults who are overweight want to lose weight (Jones, 2009). For women, pregnancy has been identified as an important area of study for weight control, given that excessive gestational weight gain (GWG) leads to, among other health complications, retained weight postpartum and increased rates of obesity (Siega-Riz et al., 2009). Given this evidence, the Institute of Medicine's (IOM) 2009 recommendations for GWG support smaller amounts of GWG for women who are overweight and obese before pregnancy (IOM & National Research Council, 2009).

Pregnancy has long been recognized as a significant teachable moment (Phelan, 2010). For example, pregnant women are motivated to engage in healthy behaviors, such as smoking cessation (Phelan, 2010). However, adopting optimal health behaviors is difficult or impossible when there is confusion about what optimal health behaviors are. Pregnancy is a time during which science and society diverge on the topic of weight, muddying what appropriate health behaviors should be. Unlike during the rest of their lives, when women who are overweight or obese desire weight loss, pregnancy can be seen as an opportunity to let loose because weight gain is not only expected, but even encouraged. In our previous work, women who are obese have described pregnancy as a time when they finally are not judged for eating more than a modest portion and can gain weight freely without criticism (Chuang, Velott, & Weisman, 2010). Take Danielle, for example, a 27-year-old woman in one of our studies who recently had her first child. Obese before becoming pregnant, she admits to looking at pregnancy as a time she could "loosen up" on her diet: "My weight has always been a struggle for me. Before I was pregnant, I was a looking forward to being pregnant, and not having to worry about what my weight was going to be [when I was] pregnant. . . . That was kind of a relief for me." Danielle gained more than 50 pounds during pregnancy, far exceeding the 11 to 20 pounds recommended for women who are obese. Unfortunately, Danielle's experience is commonplace today; two out of every three U.S. women who are already overweight exceed the IOM guidelines for recommended weight gain (Chu, Callaghan, Bish, & D'Angelo, 2009).

Why have women come to embrace pregnancy as a time to gain weight freely? We suggest that it is largely owing to social norms, which can be summarized by the commonly used phrase "eating for two." In truth, only an additional 300 calories per day are needed to achieve the 25 to 35 pound weight gain recommended for normal weight women. Our work consistently demonstrates that pregnant women, like Danielle, are largely unconcerned about gaining too much weight owing to strong social norms about the acceptability of weight gain in pregnancy: "During the pregnancy, I really didn't think much of [my weight gain], because people would say, 'Oh you look great. You make a good pregnant woman.'"

When social norms and the medical evidence differ, we rely on health care providers to tackle these important issues and provide evidence-based recommendations to individual patients. Unfortunately, providers have fallen largely silent on weight counseling in general (Kraschnewski et al., 2013), and perhaps even more so during pregnancy (Phelan et al., 2011; Stengel, Kraschnewski, Hwang, Kjerulff, & Chuang, 2012). However, by failing to inform pregnant women of recommended guidelines for GWG, providers are further compounding the problem. As Danielle described to us, "[My doctors] never said anything about gaining too much. Just one doctor said not to gain more than 30 pounds. But by then I was just 5 pounds away from that." The unfortunate result is that many pregnant women gain far too much weight, resulting in health complications for both themselves and their unborn child; excessive GWG is a known contributor to today's childhood obesity epidemic (Oken, Rifas-Shiman, Field, Frazier, & Gillman, 2008).

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Despite the adverse consequences associated with excessive GWG, pregnant women are not gaining too much weight out of lack of concern for having a healthy baby. Sadly, our research demonstrates that most behaviors that contribute to excessive GWG are a direct, although misguided, result of women's concern to support a healthy pregnancy. Pregnant women are focused on making sure they are eating enough, which is often too much, and avoiding exercise to protect their unborn child. Danielle's description echoed that of the majority of women in our research: "My main concern was hurting the baby, and so I stopped exercising, because I didn't want to strain myself or do anything to hurt the baby. . . . I just wasn't educated enough to know it's okay to do some exercise." Federal physical activity guidelines recommend that pregnant women engage in at least 150 minutes of moderate intensity physical activity a week. Despite the known safety of physical activity for most pregnant women and the apparent health benefits for both mother and fetus, misconceptions exist among patients and providers (Stengel et al., 2012).

Unfortunately, we do not know how to best help overweight and obese women achieve healthy weight gain; GWG interventions to date have been unsuccessful in this target population. Behavioral interventions trialed have employed multiple behavioral change techniques, including goal setting, action planning, and self-monitoring, largely modeled after approaches used in weight loss interventions (Hill, Skouteris, & Fuller-Tyszkiewicz, 2013). The theoretical underpinnings of these types of behavioral change techniques assume that the participant believes that guideline-adherent GWG is a desirable goal. Smokers enter smoking cessation trials because they want to quit smoking, overweight persons enter weight loss studies because they want to lose weight; however, we cannot similarly assume this is the case for pregnant women and research suggests the opposite may be true. Therefore, innovative approaches are necessary to be successful in aiding women in achieving appropriate GWG.

We argue that changing social norms around pregnancy weight gain and the culture of "eating for two" are necessary to successfully help pregnant women to understand the importance of, and ultimately achieve, guideline-adherent weight gain. It should not be surprising, for example, that a 30-minute once-weekly intervention is significantly overpowered by the other 10,050 minutes pregnant women spend receiving opposite messages from the real world. Unlike obesity or tobacco use, excessive GWG is not recognized to be harmful by society at large, including at the individual, health care provider, and community levels. Despite this reality, nearly all GWG interventions to date have engaged women on an individual basis, ignoring the social network within which they operate. The potential influence of social networks has received great recognition recently for a host of health conditions, including obesity (Christakis & Fowler, 2007). If behaviors known to be undesirable can spread efficiently across social networks, imagine how quickly socially acceptable behaviors, such as "eating for two," spread.

Combining the influence of social norms with the obesiogenic environment in which we live, it is unsurprising that most women gain too much weight during pregnancy. However, public health campaigns have successfully navigated belief change during pregnancy and infancy in the past. In an effort to combat sudden infant death syndrome, the American Academy of Pediatrics released their recommendation to put infants to sleep on their back in 1992. This campaign, "Back to Sleep," changed the social norm in a matter of years, resulting in a significant increase in infant back sleeping and sharp decline in sudden infant death syndrome (Pollak & Frohna, 2002). Public health messaging, particularly during this teachable moment, is a powerful tool. A similar campaign to call to attention the importance of guideline-concordant GWG is needed. By targeting the entire population, there is an opportunity to shape the current social norms to support healthy lifestyles and weight gain during pregnancy.

In addition to public health messaging, prenatal providers need to take on an active role in advising women on healthy GWG and the importance of physical activity during pregnancy. Because women value their doctor's opinion over nearly all others during pregnancy, failing to advise women during their routine prenatal visits is a missed opportunity to improve knowledge of, and buy-in to the importance of healthy GWG. However, how to effectively counsel pregnant women about GWG is unknown. The American College of Obstetricians and Gynecologists has issued a committee opinion endorsing the IOM guidelines, but does not provide specific guidance on how prenatal providers are supposed to communicate the recommendations to their patients. Although further research may be necessary to determine evidence-based approaches, expert opinion on how to successfully integrate GWG counseling into clinical practice may be a necessary first step. In addition, the American College of Obstetricians and Gynecologists' patient fact sheet library is surprisingly missing any literature on GWG. Identifying ways to address GWG during the prenatal visit and creating a patient-friendly handout are low-hanging fruit in addressing this problem. However, given that the first prenatal care visit is usually at least halfway into the first trimester, prenatal care cannot be the first place that healthy GWG messaging begins.

Arguably, the most effective approach for avoiding excessive GWG is to shape women's beliefs about GWG before they even consider becoming pregnant. In this capacity, primary care providers serve a critical role, because most women will seek their care. A Healthy People 2010 goal was for 60% of primary care providers to provide preconception counseling as part of routine primary care. It is well-accepted that obesity before conception increases the risk for adverse pregnancy outcomes, and that achieving healthy weight before conception is desirable (Johnson et al., 2006). However, preconception health counseling should also include information about healthy weight gain targets during pregnancy. An ideal approach would incorporate such recommendations into routine women's health maintenance visits to assist women in achieving a healthy weight through lifestyle changes that, when continued during pregnancy, will also limit excessive GWG. Evidence supports that preconception interventions effectively help women to enter pregnancy at a healthier weight and achieve healthier GWG during pregnancy (Weisman et al., 2011). By reinforcing the role of healthy lifestyle and the importance of guideline-concordant GWG, primary care providers can potentially impact behaviors long before the first prenatal visit. However, achieving these types of counseling in primary care requires the development of effective tools for both weight management and awareness of the IOM guidelines. One approach may be to provide all reproductive-age women with routine feedback at clinic appointments about not only their current body mass index, as has been enacted in some patient-centered medical homes, but also with a description of the IOM guidelines for GWG.

There remains a need for more research on GWG interventions, to inform the best approaches for clinicians to provide counseling and for pregnant women to successfully achieve healthy weight gain. Future work needs to focus not only on pregnant women, but also on the social network within which they operate, including partners, families, friends, coworkers, and health care providers. In addition, research that compares the effectiveness of alternative approaches to improving guideline-concordant GWG is necessary. By determining methods to increase access to a concise and consistent message, knowledge and uptake of the IOM's guidelines for GWG will be increasingly successful. Women need to understand the potential harms of excessive GWG to allow them to make informed choices during pregnancy. As a teachable moment, pregnancy could enable important behavior changes for increasingly healthful diets and physical activity. These behavior changes will not only benefit the woman and her unborn child, but may influence her family and those within her social networks, broadening the potential impact of GWG interventions. It's time to start looking at the potential for social networks to influence our health for the better, as opposed to simply spreading unhealthful messages that lead to disease. Perhaps the greatest evidence we could have that social norms have successfully been changed is that future pregnant women may still hear "you're eating for two," but that it will indicate the importance of a healthful diet during pregnancy, not simply doubling up at the dinner table.

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