Unintended pregnancies are typically associated with poor health outcomes for mothers and babies, and they also limit the social mobility of women and their families. Gaston County has achieved great success in reducing both teen pregnancies and unintended pregnancies among low-income women through the Gaston Youth Connected project and the local health department’s push to increase accessibility to long-acting reversible contraception. Reductions in the racial disparities in teen pregnancy rates, higher graduation rates for females, and fewer pregnancies among low-income women all indicate a potential for better reproductive health to increase the social mobility of Gaston County women. The ability to clearly connect health outcomes to long-term social improvements helps create sustainable community buy-in and should be a priority in public health initiatives.

Each year, 45% of all pregnancies in the United States are unintended [1]. Adolescent pregnancy rates are declining, but American teens are still much more likely to experience a pregnancy than their peers in other Western industrialized nations [2]. Teen mothers have lower graduation rates and higher poverty rates, and their children are more likely to have negative health and social outcomes over the course of their own lives [3]. Both teen pregnancies and unintended pregnancies occur more often among women who are poor or who belong to racial/ethnic minorities [1, 2].

In the early 2000s, public health leaders in Gaston County recognized that local teen pregnancy rates were consistently higher than the North Carolina rate [4], and they began allocating resources to address the issue. While the motivation to tackle this issue focused on improving health outcomes for mothers and babies, public health professionals also acknowledged teen pregnancy’s negative impact on social outcomes such as higher school dropout rates, fewer job prospects, and a lifetime of economic instability.

These factors and others are now understood to be part of a cohort of influences that impact health directly by limiting social mobility and hampering the ability of women and families to rise out of poverty. Low social mobility has become central to public health because it reinforces poor health and social outcomes across generations, as children born into low-income families are more likely to suffer serious health problems, which then reduce their opportunities to escape poverty as adults [5]. When women are given tools to better control and make decisions about their reproductive health, they are more likely to achieve higher educational and career outcomes and are therefore more likely to be able to overcome poverty [6].

Gaston County has employed several strategies to reduce teen and unintended pregnancy, including increasing access to long-acting reversible contraception (LARC); improving counseling about reproductive life planning; and partnering with the Gaston Youth Connected (GYC) initiative, which mobilized the entire community around teen pregnancy. These efforts have contributed to reductions in teen pregnancy rates [4] and a decrease in unintended pregnancy among low-income women (unpublished data).

Reproductive Life Planning and Increased Access to LARC

Over the past decade, the Gaston County Department of Health and Human Services (GCDHHS) has become a leader among local health departments for its work to improve access to LARC. The costs of LARC devices are often offset by reimbursements from Medicaid, private insurance, state and private grants, and/or patient fees. Additional funds were built into the county budget to cover the costs for patients who do not have access to any of these payer sources.

Following the black box warning issued by the US Food and Drug Administration (FDA) regarding the injectable contraceptive Depo-Provera in 2004 [7], GCDHHS began looking for alternatives that could be offered to patients who were using this type of contraceptive. They recognized that intrauterine devices (IUDs) were being underutilized and began making plans to increase usage of these devices.
After conducting a skills assessment for all department providers, GCDHHS developed a training program to ensure staff’s competency to perform IUD insertions and removals. To provide patients with additional LARC options, GCDHHS’ medical director participated in one of the first local Implanon insertion trainings in 2006 and then became an official trainer in order to instruct other local providers. GCDHHS was the first health department in the state to offer this option to patients, inserting the first of these subdermal devices in March 2007. Over the following year, all GCDHHS providers attended the FDA-required training for Implanon and received continued supervision to ensure competency.

In December 2009, the American Congress of Obstetricians and Gynecologists issued the committee opinion, *Increasing Use of Contraceptive Implants and Intrauterine Devices to Reduce Unintended Pregnancy*, which recommended that all obstetrician-gynecologists incorporate strategies into their practices to increase use of subdermal implants and IUDs [8]. GCDHHS quickly adopted best practices such as providing counseling on all contraceptive options, encouraging implants and IUDs for all women regardless of age or parity, and adopting same-day insertion protocols. In order to implement same-day insertions, GCDHHS moved to a modified open-access appointment system, which allowed women to schedule same-day appointments.

As the front line of contraceptive counseling, all nursing staff received extensive training, including instruction in motivational interviewing, which enabled them to engage clients in high-quality counseling on contraception and to emphasize the effectiveness of LARC. GCDHHS trained all clinicians, including advanced nurse practice providers, in LARC insertion and removal procedures and applied the
Quick Start Algorithm to all patients to see if they were candidates for same-day insertion of a LARC device [9].

More recently, GCDHHS recognized a need to improve postpartum contraceptive counseling, as this is critical to helping women delay subsequent pregnancies and increase the interpregnancy interval. Of women in North Carolina who were 3–6 months postpartum and who completed a Pregnancy Risk Assessment Monitoring Survey, 12% shared that they were doing nothing to keep from getting pregnant [10]. One in 3 teen pregnancies in Gaston County is a repeat pregnancy [4]. GCDHHS has made contraceptive counseling improvements to both postpartum and antenatal care and has begun initiating discussions on reproductive life planning during maternity care, which allows patients to have a plan in place for contraception after delivery. These efforts were enhanced by ancillary case management programs offered through GCDHHS such as the Nurse Family Partnership, the Teen Parenting Program, Healthy Beginnings, and the Pregnancy Medical Home Program. These programs ensure that all their staff members are oriented to the benefits of LARC and mention these options in their contraceptive counseling. They share consistent messaging about the need for highly effective contraception, and they help patients schedule and keep their postpartum appointments. This collaborative effort increased GCDHHS’ postpartum follow-up rate from 68% to 82% in less than a year’s time [11].

These changes in clinical procedures have been critical to success in reducing the incidence of unplanned pregnancies, especially in the adolescent population. GCDHHS is both the primary provider of family planning services to uninsured adolescents in Gaston County and the largest maternity practice in the county, delivering over half of local births annually. GCDHHS plays a critical role in ensuring that low-income and minority women have access to effective contraceptive methods that can help reduce the dispari-
ties in teen and unintended pregnancy rates among those populations.

Gaston Youth Connected

In 2009, the Gaston Board of Health identified teen pregnancy as a priority health issue for the county, and GCDHHS contracted with a consultant to analyze teen clinical services and make recommendations for improvement. From these recommendations, GCDHHS appointed a teen health advocate (THA) to serve as a liaison between the clinical and education staffs and to provide additional education and support to teens in the clinic.

Building on the foundation of prevention work that had already been established, the Adolescent Pregnancy Prevention Campaign of North Carolina (now SHIFT NC) received funding in 2010 to implement a 5-year, $5.8-million, community-wide initiative to reduce teen pregnancy in Gaston County. With GCDHHS as a central partner, the GYC project was launched. Three primary prevention strategies were utilized: clinical services, evidence-based educational programs, and wide ranging community leadership and support.

With GYC funding, GCDHHS overhauled their teen service delivery model and employed several best practices. First, an exclusive clinic space for teens aged 12-19 years was created, and all teens’ health care needs were met in this space, rather than in multiple service-specific clinics. Also, separate teen-only and family waiting areas increased privacy and comfort for patients, and the aesthetic design of the new space incorporated feedback from local teens involved in GYC. Finally, having 3 satellite locations offered geographic coverage throughout the county.

The Teen Wellness Center grand opening was held in April 2012. Over the course of the project, 4 other practices joined GCDHHS in implementing “teen-friendly” best practices in their offices as well. GYC funded a second THA position to ensure availability of services at each Teen Wellness Center location. In addition to seeing patients in clinic, the THAs manned a cell phone that teens could call or text to ask questions or make appointments, and they helped market the Teen Wellness Center throughout Gaston County. THAs were also available to provide tours of the Teen Wellness Center and to offer education about minors’ rights to health care, the services available at the Teen Wellness Center, and how to make an appointment.

GCDHHS has also worked closely with outside providers to increase their capacity to offer LARC. Each practice identified a practice champion, and staff trainings were conducted on a variety of topics including contraceptive counseling and billing and coding for LARC devices. The providers met on a quarterly basis and shared data and practice strategies. Over the course of the project, all practices increased their use of LARC, with utilization exceeding 16% in obstetric/gynecology practice settings [12].

One of the most critical pieces of the project was the way GYC brought together leaders from across the community—schools, churches, youth centers, civic groups, and the business community—and rallied them around the issue. GYC helped Gaston County understand that teen pregnancies impact everything from infant mortality to economic development. The community began to understand the concept of social mobility and the idea that by reducing teen pregnancy, Gaston County could improve graduation rates, boost the economy, and give young women a greater chance to succeed. It became part of the regular dialogue in discussions around the issue, and it helped to create committed and passionate allies among those who had at one time been uninterested or even unsupportive of teen pregnancy prevention efforts.

Although the GYC project officially ended in October 2015, much of the work continues. Partnerships that were developed during the GYC project are still utilized to share resources, ideas, and information.

Results

By all accounts, these initiatives have been a great success. Teen pregnancy rates are down, and Gaston County is narrowing the gap between its teen pregnancy rate and the North Carolina teen pregnancy rate (see Figure 1). Unintended pregnancy rates among low-income patients who receive care from GCDHHS are also declining, as state data collected from local Medicaid patients show an 8.8% decrease in unintended pregnancies from 2012 to 2015 (unpublished data). GCDHHS continues to be a state leader in LARC insertions (unpublished data).

The GYC project model has been praised nationally, and SHIFT NC is replicating their work in other communities. One of the most exciting results attributed to the project is the shrinking disparity between white and African American teen pregnancy rates. From 2006 to 2014, there has been a 24.2% reduction in this gap, and in 2012 the rate of teen pregnancies among African Americans was actually lower than that among whites (see Figure 2).

Gaston County graduation rates have also improved, with a nearly 20% increase in the high school graduation rate in Gaston County Schools from 2010 to 2015. The county has also seen a 55.2% reduction in the local dropout rate among all students. There is an even higher reduction in dropouts among female students—59.5%—which many people attribute to the reduction in teen pregnancies [13].

Teen Pregnancy and Social Mobility

When GCDHHS first began its LARC work and the county initiated its teen pregnancy project, it was not as a means of undoing years of inequality and disproportionate economic mobility. Only recently has GCDHHS come to understand the wider implications of their work in the community and how improved social outcomes will likely yield an even greater return on investments. In many ways, Gaston County happened to be in the right place at the right time as they
utilized core public health approaches that led to many positive, unintended outcomes.

These unexpected results are exciting, yet hard to quantify. While theory and national research support the correlation between fewer unintended pregnancies and greater upward mobility, how do public health entities demonstrate this on a local level? One way Gaston County has tried to share the broader impact of their work is by quantifying the estimated number of teen pregnancies avoided and approximating the related economic and social impacts. This has been a successful way of getting attention and support from county leadership and organizations outside of the health care sector.

Increasing social mobility is a goal in and of itself, but as Gaston County discovered with the GYC project, framing health issues in social contexts and describing how outcomes impact broader social and economic issues can also boost community engagement. As Gaston County continues to look for ways to boost upward mobility through health initiatives, they hope to replicate this model in future work on

FIGURE 1.
North Carolina and Gaston County Teen Pregnancy Rates, 2007–2014

![Graph showing teen pregnancy rates](image1)

Source: North Carolina State Center for Health Statistics. Reported Pregnancies [4].

FIGURE 2.
Gaston County, North Carolina, White and African American Teen Pregnancy Rates, 2007–2014

![Graph showing teen pregnancy rates by race](image2)

Source: North Carolina State Center for Health Statistics. Reported Pregnancies [4].
mental health, strengthening family functioning, and childhood obesity. NCMJ

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