ANALYSIS OF SECONDARY STAKEHOLDER EDUCATION ABOUT ADOLESCENT PREGNANCY PREVENTION EFFORTS IN GASTON COUNTY, NC

By

Elyse Keefe

A paper presented to the faculty of The University of North Carolina at Chapel Hill in partial fulfillment of the requirements for the degree of Master of Public Health in the Department of Maternal and Child Health. Chapel Hill, N.C.

October 20, 2014

Approved by:

Abstract:

This study aims to evaluate the changes in knowledge, attitude, and beliefs about adolescent pregnancy in Gaston County among secondary stakeholders for the Gaston Youth Connected (GYC) community-wide teen pregnancy prevention project. We used both qualitative and quantitative methods, which included 24 qualitative interviews and responses to closedended questions about teen pregnancy and GYC approaches. Findings indicate that community presentations were effective in informing community leaders, building community buy-in, and empowering advocates to prevent adolescent pregnancy in Gaston County.

Background:

Since 1990, adolescent pregnancy and birth rates have been declining in the United States, and 2012 saw a record low for live birth rates, at 29.4 per 1,000 among 15-19 year olds.¹ There are persistent disparities by race and region however, with Blacks and Hispanics accounting for 57% of U.S. teen births in 2012 (unchanged from 2011) and states in the South accounting for the highest rates of teen pregnancy.¹⁻² Similar to the national trend, teen birth rates for 15-19 year olds has seen a downward trend and decreased in North Carolina from 34.9 per 1,000 in 2011 to 31.8 per 1,000 in 2012.¹ The decline in adolescent pregnancy in the U.S. and in North Carolina has mostly been attributed to teens being less sexually active and using more contraceptives than in previous years.³

Adolescent pregnancy is a public health concern because of the negative social and economic effects it has on both mother and child. Adolescent pregnancy is an important cause of high school dropout rates and is associated with low academic achievement, unemployment, and poverty. Infants born to adolescent mothers are at an increased risk for prematurity, low birth

weight, infant mortality, physical neglect and abuse, low school achievement, incarceration, and risk for becoming adolescent parents themselves.⁴⁻⁶

Gaston Youth Connected:

In October 2010, the Adolescent Pregnancy Prevention Campaign of North Carolina (APPCNC) received funding through a five-year cooperative agreement with the Centers for Disease Control and Prevention (CDC) to implement Gaston Youth Connected (GYC), a communitywide teen pregnancy prevention project. GYC is one of nine project sites for the CDC's *Integrating Services, Programs, and Strategies Through Communitywide Initiatives: The President's Teen Pregnancy Prevention Initiative.* The two pillars of the GYC project are 1) evidence-based programs for youth, which help delay sexual activity and allow young people to adopt healthier sexual behaviors when they do form intimate relationships; and 2) improving clinical services for teens, including sexual and reproductive health services.⁷ GYC uses a community-driven model and seeks to empower parents, mentors, and local youth to improve adolescent health and reduce adolescent pregnancy in Gaston County.

Between 2011 and 2012, 1,377 Gaston County youth were recruited by program partners and enrolled in one of seven evidence-based sexual education programs, all of which are included in the US Department of Health and Human Services' Office of Adolescent Health database. GYC also worked with all five of Gaston County's medical practices, which provide OB-GYN services, to improve their adolescent reproductive health practices, such as counseling sexually active teens to the most effective contraceptive methods. Finally, GYC helped the Gaston County Health Department open the Teen Wellness Center, a nationally recognized health clinic that is youth-centered. The Teen Wellness Center opened in 2012 and serves around 2,300 teens annually.⁸

GYC's initial goal after its inception in 2010, was to reduce adolescent teen pregnancy in the county by 10% in 5 years, but this goal was achieved by 2012 with a reduction of 28%. Additionally, the racial disparity, which had persisted in the county with Blacks having higher rates of teen pregnancy compared to whites, closed in 2012, although the gap reopened in 2013.⁷ Further, the evidence-based programs improved the behaviors and knowledge of over 1,300 youth and 20% of contraceptive seeking teens used long-acting reversible contraception (LARCs), the most effective birth control methods, compared to 10% statewide.⁷ Although Gaston County's adolescent pregnancy rate remains higher than the state average at 42.7 per 1,000, compared to 39.6 per 1,000, it is decreasing at a faster rate, down 12.5% since 2011, compared to the 9.6% decrease in North Carolina.

Since its inception, GYC engaged diverse stakeholders, or community leaders and organizations, through outreach efforts, public awareness, and educational events, presenting to churches, civic organizations, governing boards, and school officials, as one aspect of the overall project. GYC conducted approximately 140 presentations to over 100 groups.⁸ These attendees are considered to be "secondary stakeholders," or stakeholders "with whom the organization interacts but who are not essential to its survival," and can still influence the outcomes of a project.⁹ These secondary stakeholders will be the population of this analysis. Information shared at these events included a description of teen pregnancy in Gaston County, descriptions of the project, results of the community needs assessment, and updates on the project. The goal of these stakeholder education efforts was to increase stakeholder commitment at state and local levels in support of effective education and access to clinical care. The CDC grant supporting GYC ends in September of 2015, and the continuation of GYC efforts is a current focus of the project. Evaluating secondary stakeholder education will be used to inform next steps for

sustaining the successes of the GYC project. It will also contribute to the knowledge base for effective ways to engage stakeholders and identify what the short term outcomes are for stakeholder engagement efforts.

Problem statement:

The grant funding for the GYC project ends in September of 2015, making the continuation of GYC project approaches and the sustainability of positive results in Gaston County a current focus of the project. While GYC has created a core partner team, dedicated to the continuation of strategies, much is unknown about the level of support from other influential community leaders, or secondary stakeholders, which is needed in order to predict the sustainability of the project after the grant ends. Further, this analysis will be important for GYC staff to be able to identify the lessons learned--what messages were retained among secondary stakeholders and how were those messages interpreted or acted on? Finally, there is little existing literature about the impact of stakeholder education, particularly with community leaders as the stakeholder group. Therefore, this analysis seeks to answer both questions about the sustainability of a successful community-wide intervention for reducing adolescent pregnancy, identify lessons learned from this project, as well as contribute to evaluation literature regarding short-term proximal outcomes with stakeholder education for adolescent pregnancy prevention.

Literature review:

Stakeholders include individuals, groups, and organizations that have influence, either financial or political, within a community and therefore influence the decision-making, implementation, and success of a particular project.¹⁰ Additionally, stakeholders can influence the success of interventions by directly participating in implementing strategies, referring other participants, or sharing positive information about the intervention with other community

members.¹¹ For the purposes of this analysis, in the context of the GYC project, primary stakeholders are defined as those who participated directly in the planning and implementation of GYC project strategies, serving an advisory role, formally connecting youth to services and have been influential in its success. Secondary stakeholders are members of the community who have come in contact with GYC through community events, but did not participate in the planning or implementation. Secondary stakeholders include faith leaders, community service organization members, and elected officials. This analysis will attempt to determine to what extent secondary stakeholders have influenced the realization of GYC strategies, as well as their potential future influence. Include could include referring participants to the program or talking to others positively about GYC interventions, for example.

Much of stakeholder analysis has focused on understanding stakeholders in order develop strategies to engage them to participate and contribute resources and/or knowledge in the development, implementation, and evaluation of programs and policies.^{9, 12-14} Further, much of the stakeholder literature regarding adolescent behavior, including adolescent pregnancy prevention, has focused on parents as stakeholders.¹⁵ However, following a review of evaluation literature, little has been written about evaluating stakeholder education in order to determine the influence that programs and interventions have had on secondary stakeholders, changing their knowledge and future intentions to contribute resources or support policies.

Nastasi and Hitchcock (2009) describe the challenges of conducting evaluations of multilevel interventions, such as GYC, and advocate for adapting mixed-methods approaches.¹⁰ Since GYC has extensive quantitative data on key indicators of adolescent pregnancy and limited resources to evaluate community impact, qualitative interviews are the most appropriate method to evaluate community-level acceptability, integrity of implementation, outcomes, and

sustainability, and will be the main method of this analysis.¹⁰⁻¹¹ At a local level, stakeholders can be interviewed individually, and Varvasovszky & Brugha (2000) recommend face-to-face interviews, semi-structured interviews and self-administered questionnaires for collecting data from stakeholders, either individually or in focus groups.¹¹

Methods:

We conducted twenty-four (24) individual semi-structured phone interviews with secondary stakeholders in Gaston County. These interviews were used to generate qualitative and quantitative data in order to determine changes in knowledge, beliefs, and behavior among secondary stakeholders about adolescent pregnancy in Gaston County (Appendix). We also hoped to be able to predict future support for the continuation of evidence-based strategies to prevent adolescent pregnancy, implemented by GYC.

Procedure

Participants were identified using the "Presentation and Outreach Log" kept by APPCNC staff throughout the project, which documented each community presentation given by APPCNC staff or program partners about the GYC project. A list was then compiled of all the organizations which received at least two (2) presentations, in order to determine the most important secondary stakeholder groups. Next, informal interviews were conducted with APPCNC staff members directly involved in stakeholder outreach efforts to generate a list of potential secondary stakeholders using the list described. APPCNC staff indicated the names and titles of secondary stakeholders they perceived to be important to this analysis, as well as primary stakeholders who might identify other secondary stakeholders. In seeking to obtain the most representative sample, which would reflect varying levels of support, we requested names of secondary stakeholders who may be neutral, unsupportive, or whose support was unknown, in

addition to those known to be supportive of GYC. Additionally we sought representatives from a mix of secondary stakeholder groups including youth development organizations, elected officials, service organizations, and faith leaders. Individuals who fit the criteria, were then contacted via e-mail, either by the principal investigator or through a primary stakeholder contact, and invited to participate in the interview. Among participants who did not use e-mail, project personnel called participants directly. Participants who responded and agreed to participate were then informed of the purpose, description, and reason for their selection as participants, as well as confidentiality and privacy statements. This included an explanation that their participation is voluntary and a request for verbal permission to audio-record the interview for note-taking purposes.

Participants were asked two (2) broad open-ended questions, each followed by a set of probing, or sub-questions, as well as multiple choice and Likert scale questions. These questions were developed with input from APPCNC staff and core project stakeholders. The first question sought to determine what participants learned from the presentations, their beliefs about adolescent pregnancy, and any actions they took as a result of the presentations. The second question dealt with determining the participants' levels of support for GYC strategies and their intended behavior to advocate for the continuation of strategies in the community after the grant ends in September 2015, as well as support for the funding of those strategies.

Participants were asked at the end of the interview for permission to contact them again in case there were follow-up questions. Phone interviews were conducted and recorded in the form of written notes and audio recordings which were then transcribed by project personnel, who have completed CITI training in human subjects research. Quotes which appear in this

paper were taken directly from transcripts unless otherwise clarified or abbreviated with ellipsis or parentheses.

Analysis

Responses were primarily analyzed using NVivo software. The first round of coding, generated nodes (overall thematic areas) suggested by participant responses. Evaluation staff then examined themes and came to consensus around the first general set of themes. The second wave of coding, examined sub-themes within the general themes, looking for any variations or strong cohesion in responses within the general theme. Additionally, Survey Monkey was used to analyze responses to Likert scale and fixed-choice questions, and the stakeholder's level of influence. Finally, responses were examined and coded for themes within and across sample populations using cross-tab functions to stratify results and make comparisons given the demographic variables, multiple choice questions, and Likert scale responses.

Results:

Sample description

The sample consisted of twenty-four (24) participants representing nineteen (19) different civic and religious organizations, municipalities, and governing boards in Gaston County. Many secondary stakeholders were affiliated with more than one group or organization. The sample included county commissioners, city council members, civic group members, faith leaders, and non-profit board members. All participants had attended a minimum of two (2) presentations by GYC staff or program partners.

The presentations varied in content and were categorized as: 1) information-sharing (explanation of project approaches, updates on progress) 2) building buy-in (managing controversy, providing additional information/follow-up); and 3) call to action (engaging

organizations to fund or help implement programs). Most (n = 21) of participants attended information-sharing presentations, more than half (n = 14) attended presentations for building buy-in, and others (n = 11) attended call to action presentations.

Secondary stakeholders were also considered to have varying levels of influence regarding the continuation of GYC strategies. The GYC Project Director categorized participants' level of influence. Ten were considered to be highly influential, eleven were considered somewhat influential, and three not very influential. Levels of influence were determined by factors such as elected officials, voting power on boards which have funded or could potentially fund future programing, individuals who have contributed monetarily to GYC, and individuals in the community who are known and trusted leaders in the community. While all participants were considered influential in some way, the attributes previously listed were regarded as contributing to increased community influence.

<u>Attitude</u>

Almost all secondary stakeholders (n = 23) said they "agree" with the statement that "There should be services in the community where teens can talk to a doctor about pregnancy prevention and receive birth control," while only one disagreed. This question was drawn from GYC's community opinion survey conducted in 2011. The results among secondary stakeholders differ somewhat from the community opinion survey, in which 86.4% of Gaston residents agreed with the same question and 13.6% disagreed.⁸ This finding suggests the secondary stakeholder participant group is somewhat more supportive of clinical services for teens. This could be due to a number of reasons such as the fact that they attended the GYC presentations and are therefore more informed than the general public, or that their attitudes and values about clinical services for teens always differed from the overall community, or that the participant sample was not

representative of community attitudes. A few participants offered reasons why they thought such

services should be available, emphasizing a pragmatic perspective, with youths' safety and

wellbeing as the central concern.

I think hopefully your children can trust you, or a godparent or whatever, but I'm in favor of being able to go to a "safe haven," a health department or whatever, where they can ask questions, get what they need and do that in confidentiality. My main goal is that they protect themselves.

If they're sexually active they need to have access, so, I would be likely. I would try to have them deter from that, but it is what it is, and I would want them to be healthy doing it and make the right ...spread of diseases and things.

One participant, a highly influential stakeholder, indicated that his/her opinion has

changed, given the cost of teen pregnancy, while maintaining that such services are outside

his/her beliefs.

The things that I support would be abstinence-only and things of that nature, but I understand everyone doesn't believe the way that I believe or think the way I think. So, I do think there should be some options out there for folks who are just gonna do what they're gonna do, regardless.So, there's gotta be some type of option because we're gonna end up payin' for it one way or another. So, it's not that I agree with it, but I don't know that I'm in a position to tell other people how to live their lives.

The only secondary stakeholder who disagreed with the statement, described his/her

beliefs about personal and financial responsibility, which would conflict with such services.

Well, I think we need to provide medical services to a point. It someone's life's in danger, or whatever the case may be, but I think people should be responsible for their own mistakes and the taxpayers shouldn't have to take care of those things.

The majority of secondary stakeholders (n = 23) said they wished teens were getting both

information on abstinence and medically accurate information on preventing pregnancy and

disease, no respondents said they wished teens were getting only information on abstinence, and

only one said they wished teens were getting only medically accurate information on preventing

pregnancy and disease. Similarly to the attitudes about clinical services for teens, Gaston

residents indicated on the community survey they were slightly less supportive of teens receiving

information about both abstinence and preventing pregnancy and disease (85.4%), and more likely to support abstinence only (9.3%), and approximately the same amount wished teens were getting medically accurate information only (5.4%). Among secondary stakeholders, two reported they changed their opinion (all into the "both" category). The majority of those who supported comprehensive sex education indicated they believed it was effective, and thought so hofers the project

before the project.

Very likely. You can triple that one. There's no stopping these teens. I mean, information and knowledge is really what they need.

They should get whatever information that's gonna help them make the right decisions.

A number of respondents indicated that their attitude towards comprehensive sex

education changed during the GYC project, especially among abstinence-only proponents.

Me personally, I'm going to support abstinence-only and education..., but I do understand there's large segments of Gaston County that is not gonna go that route. So, it just is what it is...So, I would say it's (participant's opinion) probably changed somewhat in the fact that I'm probably a little bit more open-minded to realizing that everyone doesn't hold my point of view.

...the church stands for abstinence and we try to teach and preach that. But then here again we have to look at the humanistic side of it too. It's a battle, it's a struggle, but I had to learn to accept some of the help, prevention, that you all were promoting and bringing.

I was a little bit more willing to see programs that pick up when abstinence is not gonna work—that pick up when you've already got sexually active teens, or teens that are contemplating becoming sexually active. It changed my mind about that.

You know, it probably has (when asked if his/her opinion changed). Believe it or not I didn't really think about abstinence.

Another notable finding was the secondary stakeholder participants' description of the

responsibility or accountability of the community to address adolescent pregnancy. Many of the

participants described an increased awareness of the problem leading to an increased sense of

accountability in the community. Others described the role of private community members to

affect change, with a limited governmental role. The comments invoke a sense of ownership

about the problem of adolescent pregnancy as well as the solutions.

I think, again, because it forced us to be more aware of it, there's a greater sense of accountability of trying to combat the issue.

I would say the government should be the last resort. So, that may be naiveté on my part, but ideally the work should be done by people who are right in the area where these people live—by neighbors and stuff like that, who are affecting—who are in a position to influence and affect these people.

I think that sometimes it would be a good thing if you could get parents who have experienced teen pregnancy, in their own family, or among themselves or whatever, that are willing to talk about what mistakes they've made in their life.

So globally speaking, the impact is very, or can be very detrimental because if you don't at least have options for people to undertake, that will affect the outcome which is their life, or livelihood, we're sorta selling ourselves short as a society.

We needed to do something different than what we've been doing in the past.

Similarly, several participants described a sense of hope they derived from the project,

because of their concern for the youth in their community. Many recognized the need for

continued efforts for future generations and the youth that have not yet been reached.

Well, I consistently think about the issue and had thought about the issue because obviously I'd been personally involved. Knowing some of the people that were involved in the actual programs and feeling so positive about the programs, I was inspired. And I continue to be because I'm very proud of what this grant was able to do for our community.

And we need to continue to talk about it and make sure that it doesn't reverse if we're not talking about it or making sure programs are in the community to do anything about it. We have to keep it in the forefront.

I came away feeling more hopeful. I think certainly, as I understand it, the results of the efforts of this project over the years have made some real positive inroads as far as teen pregnancy in Gaston County is concerned. So, yeah, I came away from it feeling hopeful and feeling that there are some things that I could do that will have a positive impact on the number of teenagers getting pregnant.

Well, I guess the presentations, if anything, helped me to realize that we needed to continue the efforts in Gaston County to reduce the number of teenage pregnancies that were occurring.

The crisis is still there. I think, from what I've read and the discussions, is that the program is making a positive impact.

Knowledge

Most (n = 20) of the secondary stakeholder participants, with 56 references described a

change in knowledge about data or trends related to adolescent pregnancy. The majority of those

references were related to increased awareness about the scope of the adolescent pregnancy

problem in Gaston County. Participants communicated surprise that the rate was as high as it

was, while others said that the GYC presentations increased their awareness of the issue and

need.

I think it was surprising to realize the rates were as high as they were.

I didn't know, or wasn't familiar with the statistics here in Gaston County and so I was a little surprised, but it was very informative in that respect.

It changed the perception from the standpoint that it really highlighted the need and the issue that we have in Gaston County and how detrimental some of those numbers were to our adolescents.

I guess probably, if anything, it just heightened my awareness of the problem. I was already aware that we had a problem that existed, but I would say that the presentations served to—helped to heighten the awareness.

Next, there were several references to learning about the decline in adolescent pregnancy

rates in general, but particularly about the decline in Gaston County.

Looking at the presentations I just couldn't believe it...I think they said something like, in 2012, it dropped 12 or 13%.

I talked to different people in the office here and stuff like that about what I learned, especially as far as the statistics, where the county was doing better preventing teen pregnancy than it was before. A significant decrease that we had—not only county-wise, but from the standpoint of the state level too, we've come down a pretty good bit right there.

Further, several secondary stakeholders linked the downward trend of adolescent

pregnancy rates in Gaston County to the GYC project.

Well I didn't know anything about the teen pregnancy program in Gaston County until the first presentation, and I was very impressed with the presentation and the results. And then the second presentation I heard confirmed my impressions that somebody was doing a very good job in Gaston County.

I think it was extremely important for community leaders to hear these statistics, but not only hear that, but to hear what was significantly happening with this grant money and how, statistically, the whole teenage pregnancy rate dropped.

Based on what I heard and the inclusion of so many folks involved, I walked away thinking that this was a good program for Gaston County. And being that I think that I heard there was a reduction in numbers—that was certainly pleasant to know that what you were doing was working in the county.

Another important finding is that several secondary stakeholders indicated an increase in

knowledge about the various costs, both financial and social, that adolescent pregnancy has on

young people, the community, and society.

I didn't think I recognized the financial impact of teen pregnancy on a community. A. I hadn't thought about it and B. When you put numbers to it, it's just very substantial.

I feel that teen pregnancy is a social issue that affects everything from employment to our poverty level to our quality of life.

I probably learned. Several concepts of the impact that teen pregnancies have on the person long-term, in terms of their education and financial earnings, and things like that.

My understanding is that once the social support systems that we have in this country at the local, state, and federal level, that once a child, a mother qualifies for this because of a pregnancy, then it automatically opens her up to all other kinds of things and where it stops and how much it costs, I don't think anybody knows.

There were also a few comments about increased knowledge about the populations

disproportionately affected in Gaston County, such as older teens and Blacks, who have higher

rates of teen pregnancy, even though white teens represent a much higher proportion of all teen

pregnancies. Comments demonstrated that participants were informed about the successes in

targeting those populations.

Yeah I think when you think of teen pregnancy, at least I had thought of kids in their mid-teens, you know 15 to 17 year olds. I think I remember something about the majority of pregnancies are in the 18 to 19, which was a bit surprising to me.

They showed us information based on race. And I was just really, really pleased to see that it (the project) was impacting the Black community (positively).

There was another presentation given to us to show the progress...that the African American female no longer had higher pregnancies than any other population so that was, that was a goal achieved.

Another theme which emerged, were increases in knowledge about the various program

strategies. As described earlier, GYC program strategies, which are all evidence-based, include:

educational programs, clinical services, and community engagement. Secondary stakeholders

discussed the role of education in preventing adolescent pregnancy, particularly abstinence.

It just validated my theory that it's an issue everywhere and that education is the key. And you're never too young, especially as the adolescents are now, to learn and know and educate them, but let them hear from organizations such as this, rather than their peers, you know, the facts.

One of the things that I've learned is that, if we don't get out, if we don't have programs like this and get out and teach these kids something, they're not getting this information at home.

Almost a third of participants (n = 7) described increased knowledge about ways in which

various community groups were making efforts to reduce adolescent pregnancy as well surprise

about attitudes related to addressing the problem in the community. Similar to comments about

education, many participants linked these efforts to the successes of GYC.

Yes, because we were kind of under the impression that the churches posed a challenge, but certainly learned that the churches were cooperative and provided an avenue for education regarding this topic. It was quite evident that without the effort by people in our local communities, involving themselves, along with the staff people that's running the program, we wouldn't have much progress—maybe even going the other way.

I knew it was an issue (adolescent pregnancy), but in terms of ways (I learned from the presentations) that the churches, that organizations could work together, and work with the school system and make it more of a community effort, rather than just having the health department or individual agencies working independently.

Well it really did validate the fact that there are caring people within the county who are trying to provide preventive measures to help our young folk in Gaston County and to make it more aware of what abstinence is.

A few participants also indicated they learned about the clinical services which became

available as a result of GYC efforts.

When the Gaston Youth Connected program began, it gave me new faith in knowing that young girls could get preventive care, could get personal counseling, could get, you know, having a private source that they could go to.

Several participants described the importance of evidence used by GYC, such as the use

of data, evidence-based strategies, and planning the intervention.

There's commonality here...to find out that someone or some organization...went through the effort of assessing the problem and formulating an approach, a plan, etc., implemented it and it was results-oriented. So, to actually see that unfold, that was really a good thing. And what I was really truly taken aback by is that somebody could clearly show that progress had been made.

Often times, I'm a strong believer in empirical data and that was supplied. It wasn't any soft stuff, it was pretty hard.

Why would we not support, based on something, the evidence-base that it's working and it's empowering our young people and helping to lower the teen pregnancy rate?

Behavior

The first theme in behavior change identified was that of actual changes in behavior

described by secondary stakeholders. A few (n = 3) mentioned financial support they, or their

organization provided, while the majority described changes in their interactions with youth and

other conversations in the community. First, several described engaging and talking to youth

about development and relationships, both on their own time and professionally. This was a trend typically among those already working with young people or parents. Also interesting is the majority of participants who talked to youth were categorized as "somewhat" or "not very" influential.

I work with the youth as far as youth director and bible school and Sunday school and, you know, and my sorority. So, I'm constantly around young people. So, using some of those tools and that type of information just validates how you go about approaching those things and not holding back.

The last presentation on the drop in teenage pregnancy among Blacks, that's what got me involved in volunteering in the two middle schools here in Gaston County, to help run, or to help support the Height program that we're sponsoring...That's what motivated me.

I'm a pharmacist. So the way I kind of approach, whether it was girls getting birth control, or their parents, it did kind of change the way I handled the situations that I was more as like a, you know, just trying to be a better facilitator for them to get information, really.

Others talked about GYC and adolescent pregnancy with other community members,

organizations, and leaders. Unlike the participants who talked to youth, the majority of these

participants were categorized as "very influential," (n = 10) followed by "somewhat influential"

(n = 6), and then "not very influential" (n = 3). Participants reported conversations with co-

workers, community leaders, and people directly involved in the project. Topics generally

included sharing information about the data and project strategies learned, recognizing project

partners' efforts, and engaging others to be involved. Finally, a few described financial

contributions they made to GYC efforts.

I talked to different people in the office here and stuff like that about what I learned, especially as far as the statistics, where the county was doing better preventing teen pregnancy than it was before.

I talked to my fellow commissioners, I've talked to different leaders within the community, and crisis pregnancy center.

...if I can just do this at my church--if I can just light a little candle here, then I can inspire another pastor to light a little candle in his church, and he can inspire another pastor to light a little candle, a word, in his church. So, we can make things happen little by little.

I definitely talked to my coworkers and then just people in general that I may have any discussion with about anything that's going on as far as Gaston County. I pretty much always bring that up if somebody asks me anything and just, you know, talk about how effective it's been, and things like that.

Confirmation that secondary stakeholders who attended presentations shared the

information and new knowledge they obtained and shared it in the community, creating a

dialogue around the issue and project was an important finding. Additionally, participants

reported that they felt more capable to have such conversations because they were more

knowledgeable and that adolescent pregnancy was "easier" to talk about and advocate for, given

the project.

I'll probably have intermittent conversations throughout the community, because of my role... So, it's a topic I discuss with some frequency and now I feel more informed to have those conversations.

It's been easier to kind of have conversations about that in the community now.

I think certainly what I learned from the presentations allows me to be a more effective advocate for a broad approach to dealing with teen pregnancy.

I think it's always easier to be an advocate for something that has a proven track record, so yeah, I think the project brought about some good and measurable results would make it more likely that I would be active in supporting continued resources for that effort.

Next, secondary stakeholders were asked how likely they were to advocate in the future for the continuation of GYC project strategies: clinical services for youth, evidence-based education programs, and financial support for such programs, in order to measure intended behavior. Two-thirds of the respondents (n = 15) reported being "likely" or "very likely" to "advocate for policies and strategies which help sexually active teens access health services," while a third (n = 8) reported being "unlikely" or "very unlikely" to advocate for such policies.

Among secondary stakeholders categorized as "highly influential," however, over half (n = 7) reported being "likely" or "very likely" to advocate for those services. More than half (n = 6) of "somewhat influential" participants and two of "not very influential" participants reported being "likely" or "very likely" to advocate for clinical services for teens. Among people who said they were "likely" or "very likely" to advocate, a few indicated their ability to do so has increased because of the positive results and dialogue since GYC began:

That's a tough subject to have in this community and I think now that they have brought...awareness it's easier to talk about it now, with the success that they've had.

I think it's always easier to be an advocate for something that has a proven track record, so yeah, I think the project brought about some good and measurable results would make it more likely that I would be active in supporting continued resources for that effort.

Some described that they may not participate in this advocacy because of their role in the

community, even though they supported the strategy. Others who were opposed to or ambivalent

about clinical services for teens, made up the rest of people who were "unlikely" or "very

unlikely."

Not likely. Cause I'm just not in that realm, like I said.

Advocacy is kind of a function of our board, so I can't really, my advocacy rather, is a function of the board. So I can't really speak for them at this point and time, but I think that we would probably likely do that.

I don't know if I'm likely to support government-funded birth control and condoms.

The birth control I'm in favor of is abstention, period. I don't think we need to be giving kids things to take and I'll tell you the reason why. It doesn't prevent disease.

Seventeen secondary stakeholders reported that they were "likely" or "very likely" to

"advocate for sex education which includes information about preventing pregnancy and disease,

including information on types of birth control methods," and seven reported they were

"unlikely" or "very unlikely" to advocate for this. However, nine of "highly influential"

participants, six of "somewhat influential" participants, and two of "not very influential" participants reported being "likely" or "very likely" to advocate for such sex education for teens. A few participants who said they were "likely" or "very likely," had some qualifiers about the type of education they would advocate for, however, the majority did not.

Very likely. I'm a very strong proponent of that.

Programs to educate the kids about problems that they will have if they go against the norm. I'm very likely to support something like that.

I would not do it if it did not have an abstinence component. And the abstinence would have to have just as much time and attention dedicated to it as the other.

Eighteen secondary stakeholders reported that they were "likely" or "very likely" to "allocate money, or support the allocation of money" towards the programs described, while five responded they were "unlikely" or "very unlikely" to support that funding. Stratified by level of stakeholder influence, nine of "highly influential" participants, seven of "somewhat influential" participants, and two of "not very influential participants reported they were "likely" or "very likely" to allocate or advocate for the allocation of money to evidence based sex education and improving reproductive health clinical services for teens. Most people answering "likely" or "very likely" noted that they were not necessarily in a position to be the decision-maker about how money was allocated, but that they supported or would advocate for the allocation of money towards such programs.

I've been actively trying to find who's going to keep funding it.

Very likely, based on the evidence and the documentation of what has already worked, I would be a very strong advocate for that.

Definitely likely, very likely to support access or allocation for those programs. I can't be as specific to say that I would be in a position to do so in my capacity. But, having access as far as allocation goes, I would definitely support that.

Well I'm not in a position to be able to allocate money or I'm not in a political position to be able to do that, but I have sat on grant boards and if I have the opportunity to influence allocations of funds, I will do that.

Respondents who stated they were "unlikely" or "very unlikely" to financially support

such programs, were generally not in favor of the programs in the first place, and one key

stakeholder indicated that funding for such programs was not a priority.

I would look at those things as those are not mandated things for the county to do. So, the health department would have to find a funding source. I wouldn't take money from other areas to fund that. Not that I don't think that it's important. It's just we only have so many dollars and I'm gonna—I would vote to spend monies on the things that we are mandated to spend on before I would spend it on other things, even though it might be a worthwhile project.

Presentation Effectiveness

Finally, secondary stakeholders were asked what was most effective about the

presentation for them. The themes that emerged included the use of data and various roles that

played, the professional and knowledgeable delivery of presentations by GYC staff, and the

ability to limit the controversy of the topic. First, use of data during presentations was cited by

several participants as the most effective aspect of the presentation.

Often times, I'm a strong believer in empirical data and that was supplied. It wasn't any soft stuff, it was pretty hard.

The statistics. It's just always, you know, like anybody will tell you, people want to know numbers. And they can see improvement or understand how big a problem is, etc.

Really how they just kind of approached it from numbers-based. They were doing really good research and really good statistics and stuff like that.

In addition, participants indicated that it was particularly effective to be presented with

the local data in Gaston County.

...the statistics here in Gaston county—on the number of teen pregnancies that we're having. And I think being able not just to talk about it, but to provide solid data was very effective.

So, you know I knew their (community participant lived in before Gaston) statistics, but I didn't know, or wasn't familiar with the statistics here in Gaston County and so I was a little surprised, but it was very informative in that respect.

I think it helped that the presenters were really informed about what the issues were for Gaston County.

I think it was just really helpful in just knowing how young people get their information and how they're interacting with each other in the 21st century and the fact that Gaston County's numbers were just so high in regards to teen pregnancy.

Similarly, participants indicated that being informed about the progress of the project,

from the initial awareness phase to reporting out the results and successes of the project,

particularly with data, was effective for them.

Well I didn't know anything about the teen pregnancy program in Gaston County until the first presentation, and I was very impressed with the presentation and the results. And then the second presentation I heard confirmed my impressions that somebody was doing a very good job in Gaston County.

And I think many times we hear about these community problems that have high rates of, say, drop outs and other kinds of things and it feels totally helpless...but these programs that were given by Gaston Youth Connected not only told us what the issue was, but we had a success rate to hang onto that I think was very positive.

Participants also noted the various ways GYC staff presenters minimized controversy

during the presentations, primarily through the use of data and focus on addressing the problem.

...the individuals who were making the presentations appeared...unbiased and driven more by facts than they were by any passion or any preconceived notions that they had...I didn't get the feeling that the presentations were made by people who already knew, who developed the presentations before the program was even carried out... I think the individuals certainly came across as being passionate about doing something to effectively deal with teen pregnancy, but they also didn't come across as being zealots who would take data and twist it for their own purposes. The presentations I was a part of were pretty factual and straightforward.

They really start by saying we believe that abstinence is...the best way to prevent pregnancies and sexually transmitted diseases, and I'm very happy to hear that.

I think Sally (GYC project director) did a real good job of presenting what could have been a controversial topic in a way that allowed people to understand that it was an important topic for Gaston County and gave them time to answer—or to ask questions. Another common response to what was most effective about the presentations, related to the professional and knowledgeable delivery by GYC staff.

And then I've been super impressed with all the people that I've met that have worked on the project and just how they've really approached it from kinda like a numbers-based way to kind of move the needle a little bit.

The people who gave the presentations were very good and all the visual aids they used were very good. Obviously these people know what they're doing.

Limitations:

Although GYC staff kept organized records of presentations given, the list only included the name of the organization that hosted the presentation, not the names of individual members in attendance. Therefore, it was not possible to determine who saw what presentations and the amount of content each interview participant was exposed to. Although we did our best to obtain a sample with varying levels of influence and support for teen pregnancy programs from different community organizations, we do not know the extent to which these comments reflect the full range of views all secondary stakeholders may have. Similarly, there may be response bias if people supportive of GYC were more likely to give an interview about the project than those who declined or did not respond to the invitation. Further, it is probable that many presentations were given to organizations which were likely to be supportive or potentially supportive of GYC strategies (personal communication Joy Sotolongo September 29, 2014). Another limitation is that interviews were limited to about 10-15 minutes by phone in order to assure participant response and therefore, in depth interviews which may have elicited deeper insights were not possible. However, given the number of questions posed to stakeholders and their limited knowledge of the GYC project, we ultimately felt 10-15 minute interviews were sufficient. Additionally, the interviews were retrospective and were dependent on participants'

memory and self report. Finally, the results of this analysis are not generalizable, since the sample was not random and the opinions and knowledge reflect those of a purposive sample. **Discussion:**

Participants indicated that the majority of the sample support GYC strategies: comprehensive, evidence-based sex education and clinical services for teens. In general, participant attitudes were reinforced by the presentations and what they knew about the GYC project, while a number of respondents indicated their attitudes changed toward an increased acceptance of the value of comprehensive sex education for teens. These changes in attitude, as well as the reinforcement of support for evidence-based programs and services, are important and were the desired outcomes of the presentations. However, while similar percentages agreed with education and clinical strategies, the qualitative data provided different attitudes between these two strategies. Participants described almost unequivocal support for educational strategies, while many indicated hesitancy or qualified their support for clinical services, particularly related to funding and government intervention. Also significant, was the sense of hope participants reported, given the strategies and successes of GYC. Similarly, participants evoked a sense of community ownership of the problem and a desire to address the problem at the community level. This responsibility or accountability was understood differently between participants, however.

Knowledge changes, which were generally consistent with the target outcomes of the presentations, included increased awareness of: adolescent pregnancy trends in Gaston County, including demographic data and the decline of adolescent pregnancy in the community; costs of adolescent pregnancy to teens and society; and the value of evidence-based project strategies, such as programs, services, and community collaboration. In addition to successfully increasing

knowledge and awareness about these trends in Gaston County, it is noteworthy that participants valued this empirical evidence and regarded it as valid. Further, even though these participants were not directly involved in the implementation of the GYC project, they indicated they were engaged and appreciated being included in the conversation and kept updated about the project and adolescent pregnancy trends. It was also interesting to note that participants linked the decline in adolescent pregnancy rates and reduced disparities to the efforts of the GYC project.

Another interesting finding was related to the behavioral changes reported by participants. Similar to the finding that participants felt an ownership about the problem of adolescent pregnancy, many reported that they talked to teens about their health and relationships, after attending a GYC presentation. Therefore, participants saw themselves as capable of creating change and affecting teens' lives, in order to reduce adolescent pregnancy. It is also important to note that the majority of participants who reported talking to teens after presentations, had been categorized as "somewhat" or "not very" influential. Therefore, it is important to consider the ways in which these stakeholders can be encouraged to contribute to the overall success of the program. As the GYC project moves into its last year, GYC staff should consider identifying these stakeholders, who are engaged and supportive, and give them the tools to be advocates for the sustainability of the strategies. In addition to the finding that stakeholders talked to youth, participants also described talking to other leaders in the community about the project and participated in this community dialogue about adolescent pregnancy. Therefore, it is evident that the presentations to secondary stakeholders contributed to the cumulative awareness and knowledge in Gaston County about the problem and GYC efforts to address adolescent pregnancy.

Next, regarding intended behavior, it is significant that the majority of participants indicated they were "likely" or "very likely" to advocate for evidence-based programs, improving clinical services for teens, and allocating money to such programs. Also, stakeholders categorized as "highly influential" were slightly more likely to advocate in all categories. Another key finding is that several participants reported they were more likely to advocate for such programs given the consistent conversation about the GYC project, combined with the knowledge they gained from presentations and the awareness that others are talking about it in the community. These findings suggest a change in community norms for secondary stakeholders interviewed in their comfort level, capacity, and frequency of conversations about the approaches determined to be effective by project. This is likely related to the changes in attitudes among participants as more hopeful about change and accountable as a community to address the problem.

Finally, participants identified key aspects of the presentations which made them effective. These included the use of empirical data, and particularly the use of local data and an understanding of the nuances of the problem locally. It is important to note that local data was available because GYC had the resources and time to conduct a thorough needs assessment during a planning year. This is uncommon, but was valuable for building community buy-in and creating targeted approaches for local needs. Also, as mentioned before, participants appreciated that GYC maintained a presence by speaking with the various community organizations multiple times to keep them informed and updated. Project staff also minimized controversy by understanding community values and presenting in a way that "meets people where they are," and maintaining an unbiased, informed, and professional presentation style. These are all key

lessons learned for both GYC staff and organizations building community buy-in for evidencebased adolescent pregnancy prevention programming.

In conclusion, the stakeholder presentations were effective in increasing and changing secondary stakeholder attitudes, knowledge, and behaviors both in intended and unintentional ways. These changes and reinforcements contributed to the success of the project by building community buy-in for the GYC project and empowered allies to become advocates for the sustainability of the successes in Gaston County after the grant ends in 2015. Recommendations for GYC include:

- Engage stakeholders categorized as "not very influential," particularly those who work with teens, to become advocates for continuing GYC strategies in Gaston County
- Give presentations to community groups known to be less supportive of evidence-based teen pregnancy prevention efforts
- Focus on building community buy-in and advocacy efforts for clinical services for teens, such as the Teen Wellness Center

Recommendations for adolescent pregnancy prevention programming include:

- Allocate time and resources to gather local data when planning community-wide interventions
- Present to secondary stakeholder groups multiple times, returning with updates in subsequent presentations
- Presenters should be well prepared, knowledgeable about both the issue and the community, maintain a professional straightforward style, and support proposed strategies with data and evidence

• Conduct process evaluations of stakeholder education efforts with clear indicators for changes in knowledge, attitude, and beliefs at each meeting or presentation and keep detailed records

Appendix:

Secondary Stakeholder Analysis Interview Questions

1. Did the GYC presentations you attended change your perception about teen pregnancy prevention in Gaston County?

Sub-questions:

- Did you learn anything from the presentations, and if so, what?
- What was most effective about the presentation for you?
- Did you come away thinking about the issue differently? If so, in what way?
- Did the presentation spur you do anything new or differently? If so, what?
- After the presentation, did you talk to anyone about the project or the issue of adolescent pregnancy?

I'm going to read a statement and ask whether you disagree, agree, or have no opinion.

- There should be services in the community where teens can talk to a doctor about pregnancy prevention, and receive birth control if needed. Has your opinion on this changed?
- In general, do you wish teens were getting a) information on abstinence; b) medically accurate information on preventing pregnancy and disease; or c) both? Has your opinion on this changed?

2. After the grant ends in 2015, how likely are you to support the continuation of GYC teen pregnancy prevention project approaches, such as evidence-based sex education and improving access to medical services in Gaston County? Has your support of GYC project approaches, changed since your first heard about the project?

Sub-questions:

I'm going to read a few statements and ask about your level of support.

Depending on the secondary stakeholder's influence and role:

• How likely are you (very likely, likely, unlikely, very unlikely) to advocate for policies and strategies which help sexually active teens access health services? Has your opinion on this changed?

- How likely are you (very likely, likely, unlikely, very unlikely) to advocate for sex education which includes information about preventing pregnancy and disease, including information on types of birth control methods? Has your opinion on this changed?
- How likely are you (very likely, likely, unlikely, very unlikely) to allocate money towards such programs? Repeat the answer options. Has your opinion on this changed?
- Those are all the questions I have for you today. Would you like to add anything?
- There is a possibility that we will conduct some follow-up questions with a few participants, would it be alright if I contacted you to ask some follow-up questions?

References:

1. Martin JA, Hamilton BE, Osterman MJK, Curtin SC, Mathews TJ. Births: Final data for 2012. Natl Vital Stat Rep. 2013;62(9).

2. Hamilton BE, Martin JA, Ventura SJ. Births: Preliminary data for 2011. National Vital Statistics Reports. 2012;61(5):2-19. Available from: http://www.cdc.gov/nchs/data/nvsr/nvsr61/nvsr61_05.pdf

3. Martinez G, Copen CE, Abma JC. Teenagers in the United States: Sexual activity, contraceptive use, and childbearing, 2006–2010. National Survey of Family Growth. National Center for Health Statistics. National Vital Health Stat. 2011;23(31). Available from: http://www.cdc.gov/nchs/data/series/sr_23/sr23_031.pdf

4. Elfenbein, DS and Felice, ME. Adolescent pregnancy. Pedoatr Clin N Am. 2003;50:781-802. doi:10.1016/S0031-3955(03)00069-5

5. Lavin C, Cox JE. Teen pregnancy prevention: Current perspectives. Curr Opin Pediatr. 2012; 24(4):462-469. doi : 10.1097/MOP.0b013e3283555bee.

6. Perper K, Peterson K, Manlove J. Diploma Attainment Among Teen Mothers. Child Trends, Fact Sheet Publication #2010-01: Washington, DC: Child Trends; 2010. Available from: http://childtrends.org/wp-content/uploads/2010/01/child_trends-2010_01_22_FS_diplomaattainment.pdf.

7. Gaston Youth Connected (2014). Our progress. Available from: http://gastonyouthconnected.org/?page_id=110

8. APPCNC internal report. Available upon request.

9. Brugha R., & Varvasovszyky Z. (2000). Stakeholder analysis: A review. Health Policy Plan, 15 (3):239-246. doi: 10.1093/heapol/15.3.239

10. Nastasi B.K., & Hitchcock J.(2009). Challenges of Evaluating Multilevel Interventions. Am J Community Psychol. 43:360–376. doi: 10.1007/s10464-009-9239-7

11. Varvasovszky Z, Brugha R. (2000). How to do (or not to do)...: A stakeholder analysis. Health Policy and Planning, 15:338-345.

12. Axford, N., Lehtonen, M., Kaoukji, D., Tobin, K., & Berry, V. (2012). Engaging parents in parenting programs: Lessons from research and practice. Children and Youth Services Review, 34(10), 2061.

13. Oshagh, M., Danaei, S. M., Ghahremani, Y., Pajuhi, N., & Boushehri, S. G. (2011). Impact of an educational leaflet on parents' knowledge and awareness of children's orthodontic problems in Shiraz. Eastern Mediterranean Health Journal, 17(2), 121.

14. St. Pierre, T. L., & Kaltreider, D. L. (1997). Strategies for involving parents of high-risk youth in drug prevention: A three-year longitudinal study in boys & girls clubs. Journal of Community Psychology, 25(5), 473-485.

15. National Campaign to Prevent Teen and Unplanned Pregnancy. (2013). Stakeholder education: Strategies guided by best practice.

Acknowledgements: I would like to thank APPCNC for making this project possible and especially Joy Sotolongo and Sally Swanson for their support. I'd also like to thank Anita Farel and Dorothy Cilenti from UNC-Chapel Hill for their help with this project as well.