A Recommendation for
Expanding Teen Pregnancy Prevention Programs and Pregnancy Support Services in
North Carolina Colleges & Universities

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Abstract

Both the national and North Carolina teen birth rates are increasing for the first time in over a decade. Most of the statistics reported lump pregnant adolescents into a 15-19 year old age group, but the rate of increase can be primarily attributed to the older 18-19 year olds (“Reported Pregnancies,” 2007). While teen pregnancy prevention programs have been largely successful in continually lowering birth rates and pregnancy rates over the last 20 years (“NC Teen Pregnancy,” 2007), there is a gap or deficiency in pregnancy prevention programs and pregnancy support services offered at colleges and universities. This may be responsible for the recent increase in the number of pregnant adolescents attending college, and if left unchecked, could have significant financial implications for both the taxpayer and the pregnant young women. Pregnant adolescents often face birth complications, physical and psychological stress and financial hardships that jeopardize their health and pregnancy. Without adequate support services a pregnant teen often feels they have no choice but to abort their pregnancy or drop out of school. It is imperative that funds are appropriated by legislative action specifically aimed at creation and funding of new primary and secondary pregnancy prevention programs and pregnancy support services for this 18-19 year old age group. While some colleges have responded appropriately to this new challenge and should be looked at as model examples, many are as yet, unprepared, unwilling or unable to deal with this special needs population. Programs should be comprehensive and have specific goals, measurable objectives, and a means of evaluation. Successful programs should be considered for renewable multi-year funding based on outcomes.
Introduction

According to a press release from the Centers for Disease Control and Prevention the national teen birth rate in the United States rose in 2006 for the first time since 1991. While the overall teen birth rate has remained relatively unchanged for the past four years in North Carolina, the birth rate for teens in the 18-19 age group has been increasing while that of younger teens has steadily decreased. This is important because the number of pregnant adolescents deciding to pursue a higher education degree is on the rise (“College Outreach,” 2008). Colleges today are faced with the fact that they are unprepared, unwilling or unable to care for this special needs population. Facing an unexpected pregnancy is difficult under the best of circumstances, but it may be even more difficult for young women who are also attending college. Becoming pregnant should not mean a student has to give up on pursuing a degree. This raises the question of what is currently being done to support pregnancies in this population, and what is being done to prevent subsequent ones? This paper will highlight teen pregnancy rates and the efficacy of programs used in North Carolina to prevent teen pregnancy. Additionally, it will outline available educational programs and support services targeting adolescents before and after completion of high school and review what specific colleges are offering their currently increasing population of pregnant students. In an effort to achieve a wider dissemination of valuable information, I will make a recommendation concerning expanding programs at colleges and universities throughout North Carolina, detailing the most appropriate program content for educating and supporting pregnant college aged students.
Relevant Statistics & Trends

In a recent December 5, 2007 press release from the CDC report titled, “Births: Preliminary Data for 2006”, the headlines read “Teen Birth Rate Rises for First Time in 15 Years”. The national teen birth rate had risen in 2006 for the first time since 1991. The CDC report detailed that in 2006, the birth rate rose 3 percent to 41.9 births per 1,000 for teenagers aged 15-19 years. This followed a 14-year downward trend where the teen birth rate had steadily fallen by 34 percent from a peak of 61.8 births per 1,000 in 1991.

The trend was not uniform for all ages in the adolescent population. For example, the birth rate for the youngest teens aged 10-14 declined from 0.7 to 0.6 per 1,000 where the birth rate rose 3 percent for teens aged 15-17. The highest increase was seen in older teens aged 18-19 where the rate increased by 4 percent to 73 births per 1,000. This rate was more than 3 times higher than the 15-17 year old rate of 22 per 1,000. (“National Center,” 2008) (Chart 1.)

Chart 1. (“National Center,” 2008)
National Statistics Summary

- 10% of college aged women become pregnant every year (“College Outreach,” 2008).
- The birth rate for teens ages 10-14 declined from 0.7 to 0.6 per 1,000 (“Teen Birth,” 2007).
- The birth rate for teens ages 15-17 rose 3 percent to 22 per 1,000 (“Teen Birth,” 2007).
- The birth rate for teens ages 18-19 saw the sharpest increase rising 4 percent to 73 births per 1,000 (“Teen Birth,” 2007).
- The birth rate for older teens ages 18-19 is more than three times higher than the rate for teens ages 15-17 (“Teen Birth,” 2007).

North Carolina Teen Birth Rate

Following national trends, the teen birth rate in North Carolina also showed an increase in 2006. The teen birth rate rose 4.2 percent for teens aged 15-19 with the birth rate climbing from 38.4 per 1,000 in 2005 to 40.1 per 1,000 in 2006 (“Reported Pregnancies,” 2007). Similar to the national statistics, the North Carolina teen birth rate increase was not uniform within the adolescent population. In fact, birth rates for teens in the 10-14 and 15-17 age groups have been declining for the past 10 years where the birth rate for 18-19 year olds has been slowly increasing for the last 4 years (“Reported Pregnancies,” 2007). (Chart 2.) Final data is not yet available from the CDC’s National Center for Health Statistics for the specific rate of increase in the older 18-19 year age group during 2006, but it is expected to account for all of the 4.2 percent increase measured in the 15-19 teen birth rates.
Chart 2. (“Reported Pregnancies,” 2007)

When comparing national and North Carolina teen birth rates we can see that over the past decade and a half the birth rate has declined much more rapidly in the 15-17 age population compared to the 18-19 age population. (“National Center,” 2008) (Chart 3.)

Chart 3. – (“National Center,” 2008)

<table>
<thead>
<tr>
<th>Statistic</th>
<th>North Carolina</th>
<th>United States</th>
</tr>
</thead>
<tbody>
<tr>
<td>Girls 15-17</td>
<td>-45%</td>
<td>-45%</td>
</tr>
<tr>
<td>Girls 18-19</td>
<td>-17%</td>
<td>-26%</td>
</tr>
</tbody>
</table>
It is important to make a distinction between teen birth rates and teen pregnancy rates. The teen birth rate is a measure of the number of live births per 1,000 adolescents under age 20. The birth rate is a measure of the number of teens carrying their pregnancy to term, and will likely impact the need for pregnancy support programs, especially in the 18-19 year old range where few programs exist. On the other hand, teen pregnancy rate is defined as the sum of live births, miscarriages, abortions, and still births per 1,000 women (“U.S. Teenage,” 2004). Teen pregnancy rates can be used as an indicator of the efficacy of current teen pregnancy prevention programs or an indicator for the need for creating or expanding programs.

Following national trends, the teen pregnancy rate in North Carolina also showed an increase in 2006 up 1.4 percent for teens aged 15-19. As with the national statistics, the rate of increase was not uniform within the adolescent population. In fact, pregnancy rates for teens in the 10-14 and 15-17 age groups both declined where the 18-19 age group increased. The pregnancy rate for the 15-17 year old group dropped slightly to 35.1 per 1,000 but has remained relatively unchanged for the past 4 years between 36 and 35 pregnancies per 1,000. What is particularly alarming is the recent 4.7 percent increase in pregnancies in the 18-19 year old age group. In 2006 the oldest teens accounted for the entire increase in the 15-19 year old age group. (Chart 4.) This follows a similar pattern of non uniform increase observed in both the national and North Carolina teen birth rates (“Reported Pregnancies,” 2007).
Chart 4. (“Reported Pregnancies,” 2007)

North Carolina Teen Pregnancy Rate by Age Group

North Carolina Statistics Summary

- The 2006 pregnancy rate for teens age 15 - 19 was 63.1 pregnancies per 1,000 compared to 61.7 per 1,000 in 2005, an increase of 2.2 percent (“Reported Pregnancies,” 2007).

- While rates for the 10-14 and 15-17 age groups declined or remained consistent with previous years, the 18-19 age group saw a 4.7 percent increase in pregnancies (“Reported Pregnancies,” 2007).

- The pregnancy rate for older teens ages 18-19 is three times higher than the rate for teens ages 15-17 (“Reported Pregnancies,” 2007).

Consequences Associated with Teen Pregnancy

Adolescents who become pregnant have higher rates of birth complications including toxemia, anemia, hypertension, eclampsia, prolonged or premature labor, uterine dysfunction, pregnancy-
related infections, postpartum hemorrhaging and abnormal bleeding, and premature rupture of the uterine membrane. Additionally, they are at risk psychologically because they experience higher levels of stress, despair, depression, feelings of helplessness, low self esteem, a sense of personal failure, and suicide. In addition to these health and medical risks, there are economic implications for the adolescent mother and her child. Teen mothers, on average, complete fewer years of school and are less likely to earn a high-school diploma or to go on for post-secondary education. This is unfortunate because there is a correlation between an individual’s academic achievement and their earning potential, opportunity for employment, and type of occupation. Even those studies controlling for academic ability, motivational factors, and socioeconomic status found that teen mothers were more likely to have reduced educational attainment than their adult counterparts (Meschke & Bartholomae, 1998).

Where to Start Addressing the Problem

The obvious first step in dealing with reducing unwanted pregnancies is implementation of prevention programs. Prevention programs can be community or school based and can begin as early as middle school. As a society, we need to agree to educate adolescents about birth control in sex education classes. Many countries provide sex education for their children and are rewarded with low rates of teen pregnancy and teen abortions for their efforts. Many people feel that making condoms available in school based health clinics will encourage early sexual initiation. In fact, it has little or no bearing on the age of sexual initiation. Several recent research studies have indicated that educating teens about contraception makes them more likely to use it when they begin having sex but does not lower the age at which adolescents become sexually active. The decision where and with who to become sexually active is a very
complicated one that is influenced by many factors such as religion, family dynamics, peer relationships, influence of the media, and individual personality traits (Strasburger, 2006).

**Overview of North Carolina Pregnancy Prevention Programs**

Pregnancy prevention programs have proven to be very effective over time. North Carolina has experienced a marked 50% reduction in teen pregnancy rates from 122 per 1,000 in 1988 to 63 per 1,000 in 2006 (“Reported Pregnancies,” 2007). This reduction can be largely attributed to the successful implementation of prevention programs. (Chart 5)

**Chart 5.** (“Reported Pregnancies,” 2007)
History of North Carolina Teen Pregnancy Prevention Program Implementation

- 1986 – North Carolina Legislature appropriates funds to coalition for the first time for ($20,000) (“NC Teen,” 2007)
- 1998 – Women’s Preventive Health Branch (now known as the Family Planning and Reproductive Health Unit) establish teen pregnancy prevention initiative (TPPI) using TANF block grant; NC General Assembly approves ($4.0 Million) (“NC Teen,” 2007)
- 1999 – APPCNC launches Hispanic Outreach Network and new website and media campaign “Talk with your kids about sex – Everyone else is” (“NC Teen,” 2007)

Examining the teen pregnancy rates detailed in Chart 5, it is easy to see a correlation between the creation of prevention programs listed above and a reduction in teen pregnancy rates. Currently, North Carolina has a Teen Pregnancy Prevention Initiative (TPPI) which received $1.5 million in funding during FY 2007-2008 from the federal Temporary Assistance for Needy Families (TANF) block grant. TANF funds are to be used for competitive grants for
local pregnancy prevention programs. TPPI is administered through the NC Department of Health and Human Services, Division of Public Health and includes two separate programs, Adolescent Pregnancy Prevention Program (APPP) and Adolescent Parenting Program (APP) (“Adolescent Pregnancy,” 2006).

- **Adolescent Pregnancy Prevention Program (APPP).**

  The goal of APPP is primary prevention of adolescent pregnancy among teens that have not been pregnant or caused a pregnancy. Funds awarded are used to create projects that will provide services to males and females in schools, health departments and community-based agencies.

- **Adolescent Parenting Programs (APP)**

  APP focuses on addressing secondary prevention by providing services to pregnant and parenting teens with the goal of delaying subsequent pregnancies, teaching parenting and child development skills, encouraging graduation from high school and reducing the threat of abuse and neglect of their children.

Both programs are direct service projects for teens using a state recommended best practice model aimed at reducing adolescent pregnancy in North Carolina. Public and private non-profit agencies compete for funding using a yearly Request for Applications process and are funded for a four year period. Once the project is funded each agency is expected to meet goals established in the project plan, provide in-kind matching and follow reporting requirements. Data is collected from active projects and used in program evaluation. Projects shall serve only adolescents and those target populations specified in the approved application and may not impose any charges on these clients for services. Funds may only be
used for the purposes detailed in the approved application and budget and cannot be used for the following (“Adolescent Pregnancy,” 2006):

- Purchase of inpatient care
- Purchase or improvement of land
- Purchase, construction or permanent improvement (other than minor remodeling) of any building or other facility
- Purchase of contraceptives
- Payment for transportation to or from abortion services
- Payment for abortion services

There are many examples of successful teen pregnancy prevention programs sponsored with APPP funds. Examples of similar programs targeting both boys and girls include Wise Guys and Smart Girls. These programs are conducted by public, private, non-profit, health, community, school based and faith based organizations in over 40 states with the goal of educating teens about sexual responsibility.

Wise Guys is a research based, evaluated program, which uses a best practice model that is peer reviewed and has been the recipient of numerous awards. The program focuses on specific behavior changes for boys while providing clear messages about sex and contraception and building communication skills through interactive activities. Positive outcomes were measured at a 6 month program follow-up. Boys who participated in the program demonstrated improved knowledge of sexuality and consequences of sexual activity, healthier sex role attitudes, and increased communication with parents and teachers about sexuality (“Wise Guys,” n.d.).
Smart Girls is a multi-component series that focuses on promoting self responsibility especially related to sexuality. It focuses on specific behavior changes, provides clear messages about sex and contraception and builds communication skills through interactive activities. Girls who participated in the program at a 6 month follow-up where shown to have improved knowledge of sexuality and consequences of sexual activity, healthier attitudes towards postponing sex and use of contraception. Girls participating in the program who were sexually active reported an increase in the use of contraception (“Smart Girls,” n.d.).

In both programs participants reported a significant delay in initiating sexual activity compared to non-program participants. The percentage of sexually active participants that reported always using contraception also increased significantly (“Wise Guys & Smart Girls,” n.d.).

Despite our best efforts in the area of pregnancy prevention, unwanted adolescent pregnancies will continue to occur and will necessitate the need for a variety of support services to assist young women during and after their pregnancy. These support services can be provided by a multitude of organizations partnering to achieve a common goal, the most important and critical aim of which should be to keep young women who become pregnant in school. Women who finish their education have a much higher earning potential and a therefore a greater chance of providing a healthy living for themselves and their children. Without these support services many young women may feel they have little or no alternative but to abort their pregnancy or drop out of school.

Programs Different Colleges and Universities are Offering Pregnant Students

According to the Alan Guttmacher Institute, 10% of all college-age women become pregnant each year (“College Outreach,” 2008). Colleges often find it difficult to allocate funds earmarked
for such a small percentage of their overall population. After reviewing pages of information specific to what universities were offering pregnant students, I feel the following programs deserve recognition:

**Boston College – Boston, MA**

Boston College recognizes that emotional, spiritual, and health issues during a pregnancy can seem overwhelming. They are committed to making every effort to provide pregnant students with a supportive environment intended to assure caring, confidential, non-judgmental, professional assistance and to support others affected by the pregnancy as well. The college’s goal is to provide a comprehensive support team that emphasizes caring and personal respect. Specific services at Boston College include the following:

- A 24 hour pregnancy helpline
- Health services (confidential free pregnancy testing, nutritional guidance and off-site referrals)
- Housing (on campus while pregnant and off campus after the birth)
- Academic planning and educational financing (remaining a student throughout pregnancy and beyond)
- Off campus referrals
- Counseling (University Counseling Services, Campus Ministry Office or Women’s Resource Center)

Information related to pregnancy support services is easily found on Boston College’s web page devoted to Women’s Health. In addition to a listing of services, pregnant students will find detailed descriptions as well as contact names and phone numbers (“Boston College,” 2007).
Howard University – Washington, DC

The services offered at Howard University are a work in progress. Following a pregnancy scare in her sophomore year, a Howard student partnered with the university designing, developing and implementing a pregnancy support program. This program is relatively new and has plans to expand their services in an attempt to support the growing number of women at Howard who are becoming pregnant. The university’s support website lists its vision as, “seeing college students make virtuous decisions concerning pregnancy and parenting, while continuing to pursue their education” (William-Murray, 2007).

The following services are available at Howard University:

- Signs and symptoms of pregnancy
- Brands and prices of home pregnancy tests sold at a local pharmacy
- Links for prenatal care
- Support networks
- Information about the trimesters of pregnancy
- Programs held in on-campus dorms (abstinence, STD awareness and pregnancy)

Georgetown University – Washington, DC

Georgetown University has a central resource office that distributes pertinent information to pregnant and parenting students. This office offers support in an attempt to meet the many needs unique to student pregnancy. This comprehensive program increases a pregnant student’s knowledge of subjects such as:

- Medical care
- Housing options
- Financial assistance
- Adoption resources
- Academic assistance,
- Support groups
- Access to a computerized database clearinghouse for infant furniture and clothing

This office has been in existence for many years. Students utilizing these services have been followed closely, and the University reports that in the ten year history of this office, all of the students who used the informational resources went on to graduate from college (“Pregnant & Parenting,” 2005).

**Mars Hill College – Mars Hill, NC**

Mars Hill College is a private institution who until the 2007-2008 school year was partially funded with monies from a religious group that prohibited education related to family planning. In the fall of 2007, the Mars Hill College Medical Director recognized an increase in the number of pregnant students living on campus. Because she was familiar with my background in public health, and specifically my expertise in women’s health, she asked for my assistance in addressing this situation. Keeping in mind my need to complete a public health practicum, I asked if she would be willing to assist me in creating a pilot project to support pregnant students on campus. The Medical Director obtained buy in from the entire wellness staff and all were committed to the success of this project despite the fact that the total number of pregnant students was estimated at approximately one percent of the female population. I met with the staff to discuss specific program goals and objectives. We decided the first course of action
would be to contact all female students in the student body in an effort to reach all pregnant students. We felt that a successful support group meeting would have to occur at convenient and confidential location. The late afternoon was a time least likely to interfere with classes, and the campus Wellness Center seemed a good candidate for providing a convenient and confidential meeting location. After setting a date and reserving space in the meeting location for the first meeting, I developed a flyer (Appendix A) that was distributed to all female students living on campus through inter-campus mail. The next step was to meet with the staff to determine what should occur at the support meetings. We decided that each meeting should contain an educational topic as well as a psycho-social component to provide emotional and social support where students would have a forum to discuss problems such as social stigma, financial burdens, transportation, and access to community resources. I was tasked with developing an appropriate educational curriculum and used references such as the ACOG (American College of Obstetrics and Gynecology) book and several online sources. I chose general topics that were age appropriate with the intent of surveying the pilot group to determine relevance and effectiveness that could be supplemented and adjusted based on their results (See sample in Appendix B).

The final content developed for the pregnancy support group provided information related to:

- Topics of interest such as: growth and development, nutrition, exercise and parenting
- Available Resource Information (medical providers, Medicaid, WIC, off campus housing, daycares and fire stations that provide free car seats installed by certified passenger safety technicians)
- Educational videos
- Counseling services
At the first pregnancy support meeting we discussed an overview of the program, as well as, relevant topics such as consent, confidentiality and release of information (Appendix C). The support group met weekly throughout the semester. In an attempt to evaluate the program for sustainability and in an effort to promote continuous quality improvement, I administered a survey to the participants at the end of the semester (Appendix D). The staff and I met to review the cost, attendance records and survey results. What we discovered was that many of the program materials could be used again, and that the support group we offered was essential to all students who participated allowing for the formation of valuable social connections.

Survey Results:

- Students reported an average 30% increase in their level of knowledge of parenting skills
- Students reported an average 26.7% increase in their level of knowledge of nutrition
- Students reported an average 26.7% increase in their level of knowledge of exercise
- 66% of participants reported an increase in comfort level with their ability to care for their baby after it is born.
- Parenting skills received the highest value rating and the highest number of requests for additional information, particularly infant care, preparing your own baby food, holding infants and infant immunizations.
- Participants reported they were likely to use community resources discussed in the support group and 33% requested additional information.
- 100% of students felt the curriculum was appropriate with no suggestions for additions or deletions from the support group lessons.

This pregnancy support pilot program was considered very successful by all involved. It is a practical example of real work accomplished in a North Carolina University in providing support
to pregnant college adolescents that could be used as a template for expanding future programs at other universities throughout the country.

Independent Organizations Partnering with Colleges

In addition to programs offered and sponsored directly by colleges, independent groups are partnering with colleges to provide resources and pregnancy support services. The Feminists for Life of America (FFL), a nonsectarian, non-partisan grassroots organization started a college outreach program in 1994. According to their findings there has been a 30% drop in abortions among pregnant college graduates. Their partnership involves a unique range of stakeholders including college students, faculty, administrators, counselors, campus clinic staff and service providers. FFL uses a two prong plan of action (1) by providing practical resources for pregnant and parenting students so they can complete their education and (2) challenging the assumptions that create a no win situation for pregnant college students. FFL’s college outreach program provides guest speakers and challenges students to question abortion and asks college and university administrators to provide resources for pregnant and parenting students so they may continue or complete their education. FFL has partnered with many colleges and universities including Harvard, Berkeley, University of San Diego, Stanford, Notre Dame, University of Chicago, Northwestern, St. Xavier, University of Virginia, Georgetown University and others. FFL admits they are a catalyst for change in assisting colleges and universities across the nation with providing students with needed and deserved services (“College Outreach,” 2008).

Legislation
In response to an increased number of pregnant college students wishing to pursue a degree in higher education, and in an effort to provide these students with necessary support services, there has been a flurry of recent legislative activities. A pregnant student who cannot find available support services may feel that her only alternative is to drop out of school. This is unfortunate considering the fact that according to the National Center for Education Statistics a woman who completes a bachelor’s degree will earn, on average, almost $14,000 more a year than women with a high school education. As a woman’s earning ability increases, so does her ability to provide for herself and her children.

The Elizabeth Cady Stanton Pregnant and Parenting Student Services Act of 2007 was introduced by Ohio Democrat Marcy Kaptur and North Carolina Republican Sue Myrick. This bill will encourage colleges and universities to provide pregnant students prenatal and parenting resources on their respective campuses. If the bill passes, a pilot program would be established and would provide up to $10 million in grants. These grants would assist institutions of higher education in creating and operating pregnant and parenting student services offices (Johnson, 2007).

House Bill 4564 supports the creation of a Pregnant and Parenting Student Services Project/Fund. This fund would provide grants to colleges and universities to establish an office to assist pregnant students and students with children in locating service providers. In order to be eligible for a grant the institution must (“Pregnant & Parenting,” 2005):

- Operate a Pregnant and Parenting Student Services Office on campus
- Annually assess their performance in meeting the needs of pregnant and parenting students on campus
- Identify service providers who are qualified to meet the needs of these students
- Assist students in locating and obtaining services
- Provide referrals, if necessary, to adoption agencies or for pregnancy prevention
- Report annually itemizing expenditures and reviewing and evaluating the performance of the office

Other pending age appropriate legislation such as the Democrats for Life of America 95-10 Initiative, seeks to reduce the number of abortions by 95 percent over the next 10 years. This plan will promote abstinence, personal responsibility, adoptions and support for women and families facing unplanned pregnancies. In fiscal year 2005 the federal government allocated $288.3 million in Title X spending on family planning to prevent unwanted pregnancy. The politicians sponsoring the Democrats for Life of America 95-10 initiative want a similar federal commitment to supporting positive outcomes for young women who wish to carry their pregnancies to term and may believe that abortion is their only option. Efforts will be focused at the federal, state and local levels to support and encourage volunteers and people on the front lines dedicated to helping pregnant women. Some of the programs that would be supported by the initiative include (“Democrats for Life,” 2005):

- Establishing a toll-free number to direct women to places that will provide support and pregnancy counseling and childcare for pregnant students on university campuses
- Making the adoption tax credits permanent
- Eliminating pregnancy as a pre-existing condition when seeking insurance coverage
- Supporting informed consent for abortion services
- Increasing funding for domestic violence programs
• Requiring the SCHIP to cover pregnant women and unborn children
• Providing free home visits by registered nurses for new mothers
• Offering incentives to reduce teen pregnancy
• Providing protection for pregnant college students who wish to continue their education
• Continuing to promote safe haven laws and support funding programs such as Abandoned Infants Assistance (Safe Surrender)

The Pregnant Women Support Act is a bill modeled after the Democrats for Life 95-10 Initiative which aims to reduce the number of abortions by establishing health care and childcare related programs to support pregnant women. In addition to most of the same programs included in 95-10, this bill seeks to include a program to provide grants to low-income parenting college students (“Casey Introduces Pregnant,” 2007).

Recommendations
I have outlined in detail the problem of currently rising teen pregnancy rates as well as a rising teen birth rates in the 18-19 year old population and the increasing number of pregnant adolescents seeking higher education that face many obstacles and challenges to successfully attaining a degree. It has been well documented that existing primary and secondary teen pregnancy prevention and pregnancy support programs aimed at the 10-17 year old population have both been successful and responsible for the documented declining pregnancy rates in that population. Additionally, the limited number of existing college pregnancy support programs has been instrumental in increasing the rate of graduation among pregnant college students. With the obvious gap in pregnancy prevention programs aimed at the 18-19 year old population and the
clear need for more pregnancy support programs aimed at pregnant college students, I recommend beginning a comprehensive, multifaceted plan of action for creating both primary and secondary pregnancy prevention programs for the 18-19 year old population, as well as, strengthening support programs for pregnant college students so they may complete their degree.

A majority of government and private funding sources look for a collaborative approach with numerous and diverse stakeholders in an effort to minimize duplication of efforts and services and to encourage the consolidation and efficient use of valuable resources and skills. Tackling a complex problem such as teen pregnancy prevention and particularly the support of pregnant teens on campus with its numerous and controversial moral, religious, and financial implications will require a strong, multi-stakeholder coalition. Forming a new or joining an existing coalition is the best way to identify short and long term goals and specific desired outcomes and tasks to be accomplished. An example of an appropriate existing coalition that would be relevant to the creation of our pregnancy prevention and pregnancy support plan would be the Adolescent Pregnancy Prevention Coalition of North Carolina (APPCNC). It is imperative that we have coalition members who are highly educated, have a high degree of political knowledge and who have access to the media.

There were more than 212,900 teen births between 1991 and 2004 in North Carolina that cost state taxpayers an estimated $5.2 billion. In 2004 alone $312 million was spent on the consequences of teen births (Albert, 2006). North Carolina spends just $2.5 million each year to prevent teen pregnancies. When weighed against the $312 million it spent in one year to deal with the consequences of teen pregnancy it is clear that, in the long run, an increase in prevention
and support dollars would benefit everyone. ("Adolescent pregnancy," 2007) For this reason it is imperative that the coalition recruit and mobilize additional stakeholders that might not already be involved in this cause and who have an economic interest in solving this problem; such as colleges and universities, state and local government agencies, and young pregnant women seeking a college degree. Because North Carolina has a strong university system these stakeholders could be extremely influential and instrumental in acting as a catalyst for change by circulating petitions, writing letters and demanding legislative action.

The media has the ability to give an issue enough attention to create a climate for change where legislative action becomes possible. Current events such as the Jamie Lynn Spears pregnancy and CDC press releases on the rising national teen pregnancy rates have already brought the issue of teen pregnancy into the spotlight. With that said, we need to capitalize on the current media interest in teen pregnancy by focusing their attention on the issue of teen pregnancy among college women. Human interest stories centered on the difficulties faced by pregnant North Carolina college teens could give a face to the problem the viewer or reader could identify with. The potential negative financial impact to a young woman and her child, if she has to drop out of college, along with a possible increased tax burden for North Carolina taxpayers caused by not dealing with the problem, could force legislators into action. The problem is clearly timely, prominent, pertinent to North Carolinians, and likely to make a difference in not only the lives of pregnant college women and their children but to the general taxpayer as well.

With the efforts of the coalition successfully mobilizing our stakeholders and upon gaining media interest and attention for the problem, my recommendation would be to begin seeking bipartisan legislative support. Our goal will be to have state legislators appropriate funding for
these programs. Therefore it will be important for us to consider who we want to sponsor a bill. The preference would be to find someone with experience or a history in sponsoring similar bills or several sponsors that could gain bipartisan support. Legislators such as Rep. Luther Jeralds and Sen. Marvin Ward who co-chaired the legislative study commission on adolescent pregnancy prevention and sexuality that ultimately led to the formation of TPPI are excellent examples (“NC Teen,” 2007).

Ultimately, when funds are appropriated to create teen pregnancy prevention and support programs aimed at the 18-19 year old population, a yearly Request for Application process should be created where public and private colleges and universities in North Carolina can apply for multi year funding as is done with TPPI grants. Applications will be received and reviewed by an agency tasked with administering the funds. Projects will be expected to receive in-kind services and/or revenues from the community. Successful projects may reapply at the end of the funding period. Proposed program goals must have measurable objectives that are consistent with the underlying grant objectives of primary and secondary teen pregnancy prevention and to provide support services to assist pregnant college students in completing a degree in higher education. Support services should be targeted toward preventing or reducing the chance of the college student dropping out because they feel they have no support system. They should, at a minimum, include information related to service providers, available community resources, parenting skills, counseling, and contraception. These topics were found to be the most valuable to the participants in a college pregnancy support group as detailed previously in my practicum performed at Mars Hill College. Additionally, topics such as nutrition, exercise, STDs, alcohol use, drug use, tobacco use, psycho-social issues and support groups could be covered. In the
evaluation process all programs would be required to enter data into a centralized database including information specific to achievement of goals. Programs will be strongly encouraged to obtain feedback from participants in order to strengthen and modify program content and effectiveness.

North Carolina’s 18-19 year old population is currently experiencing an increase in birth rate and pregnancy rate. The cost of ignoring this problem will far exceed the expense of responding with primary and secondary pregnancy prevention programs and pregnancy support services targeted at this age group. Becoming pregnant should not mean a student has to give up on pursuing a degree. While the cost to the taxpayer of dealing with unwanted pregnancies is easily measurable, the cost of not addressing this problem has immense, intangible human costs for pregnant adolescents and their unborn children.
Appendix A.
(Mars Hill Pregnancy Support Group Flyer)

Are you pregnant?
Are you interested in joining a support group designed especially for you?

The group will provide a place for young pregnant women to share information and support one another in a comfortable setting.

The support group will also share resources and provide education on interesting topics such as fetal development, labor and delivery, parenting and more.

We can help you prepare and plan for your own future as well as your baby's.

If you are interested please call:
Leslie Anderson, Medical Director
(828) 689-1243
Let’s Talk About …

**Nutrition for You**

**Nutrition for Two**
Ten Ways to Make Healthy Food Choices During Pregnancy

Being pregnant, and a teenager, doesn’t mean eliminating your favorite foods from your diet. However, pregnancy does mean that you are providing nutrition for two. Both you and your baby are dependent on what you put in your mouth for nutrition. By learning to make healthy food choices you can increase your baby’s chance of being born healthy.

1. Most teens eat lots of sandwiches and hamburgers. Be sure to put lettuce, tomatoes, and other sliced veggies – the more the better – on your sandwiches and burgers when you are pregnant to increase the nutritional value of your meal.
2. If you are trapped in a “white bread world,” pregnancy is a good time to learn to use only whole-grain breads and rolls.
3. Pizza is not always an unhealthy choice for pregnant teens. Make your pizza healthier by adding lots of vegetables and extra cheese instead of fat-laden meats such as pepperoni and sausage.
4. Fruit juices and milk are an especially important component of a pregnant teen’s diet. Sodas and coffee consumption should be minimal during pregnancy.
5. Eat lots of fresh veggies and fruit when you are pregnant. Just don’t try to make them “tastier” by adding additional fat such as butter, creams, or sauces.
6. Always a good idea for reducing fat and particularly important for pregnant teens is to prepare meats by baking, broiling, or grilling instead of frying.
7. Calcium is vital for the healthy development of your baby and the health of your own growing bones and teeth. Instead of eating ice cream when you are pregnant, try eating more low-fat yogurt and cottage cheese.
8. Baked potatoes without butter or sour cream are a far healthier choice during pregnancy, or anytime, than french fries.
9. Instead of eating candy bars or cookies for snacks, try eating fresh dried fruits or raw veggies.
10. Everyone loves desserts, but traditional desserts such as pies, cakes, and cookies are not a healthy choice for pregnancy. Make dessert time a healthy choice by choosing fresh fruit or yogurt next time.

(Cornforth, 2007)
Pregnancy Nutrition: Foods to Avoid

You want what's best for your baby. That's why you add sliced fruit to your fortified breakfast cereal, sneak extra veggies into your favorite recipes and eat yogurt for dessert. But when it comes to pregnancy nutrition, did you know that what you don't eat and drink may be just as important as what you do?

Start with the basics. Knowing what to avoid can help you make the healthiest choices for you and your baby.

Seafood

Seafood can be a great source of protein and iron, and the omega-3 fatty acids in many fish can help promote your baby's brain development. In fact, a British study suggests that skimping on seafood during pregnancy may contribute to poor verbal skills, behavioral problems and other developmental issues during childhood. However, some fish and shellfish contain potentially dangerous levels of mercury. Too much mercury may damage your baby’s developing nervous system.

The bigger and older the fish, the more mercury it may contain. The Food and Drug Administration (FDA) encourages pregnant women to avoid:

- Swordfish
- Shark
- King mackerel
- Tilefish

So what's safe? Some types of seafood contain little mercury. Although concerns have been raised about the level of mercury in any type of canned tuna, the FDA says you can safely eat up to 12 ounces a week (two average meals) of:

- Shrimp
- Canned light tuna (limit albacore tuna and tuna steak to no more than 6 ounces a week)
- Salmon
- Pollock
- Catfish

To avoid ingesting harmful bacteria or viruses, avoid raw fish and shellfish — especially oysters and clams — and anything caught in polluted water. Refrigerated smoked seafood is also off-limits, unless it's an ingredient in a casserole or other cooked dish.

Most fish should be cooked to an internal temperature of 145 F. The fish is done when it separates into flakes and appears opaque throughout. Cook shrimp, lobster and scallops until they're milky white. Cook clams, mussels and oysters until their shells open. Discard any that don't open.
**Meat and Poultry**

During pregnancy, changes in your metabolism and circulation may increase the risk of bacterial food poisoning. Your reaction may be more severe than if you weren't pregnant. Rarely, your baby may get sick, too.

To prevent food-borne illness, fully cook all meats and poultry before eating. Look for the juices to run clear, but use a meat thermometer to make sure. Skip medium or rare burgers and sausages. Be careful with hot dogs and deli meats, too. These are sources of a rare but potentially serious food-borne illness known as listeriosis. Cook hot dogs and heat deli meats until they're steaming hot — or avoid them completely.

**Dairy Products**

Dairy products such as skim milk, mozzarella cheese and cottage cheese can be a healthy part of your diet. But anything containing un-pasteurized milk is a no-no. These products may lead to food-borne illness.

Unless these soft cheeses are clearly labeled as being made with pasteurized milk, don't eat:

- Brie
- Feta
- Camembert
- Blue cheese
- Mexican-style cheeses, such as queso blanco, queso fresco, queso de hoja, queso de crema and queso asadero

**Caffeine**

During pregnancy, moderate caffeine intake — no more than 300 milligrams a day, about the amount in two to three cups of coffee — seems to have no adverse effects. But that doesn't mean caffeine is free of risks.

Caffeine can cross the placenta and affect your baby's heart rate and breathing. Some studies suggest that heavy caffeine intake may be associated with a small decrease in birth weight or an increased risk of miscarriage and stillbirth. Other studies haven't reported the same risks. Because of the unknowns, your health care provider may recommend limiting caffeine intake to less than 300 milligrams a day.

**Herbal Tea**

Although herbal tea may be soothing, avoid it unless your health care provider says it's OK — even the types of herbal tea marketed specifically to pregnant women. There's little data on the
effects of specific herbs on developing babies. And large amounts of some herbal teas, such as red raspberry leaf, may cause contractions.

Alcohol

One drink isn't likely to hurt your baby, but no level of alcohol has been proved safe during pregnancy. The safest bet is to avoid alcohol entirely.

Consider the risks. Mothers who drink alcohol have a higher risk of miscarriage and stillbirth. Excessive alcohol consumption may result in fetal alcohol syndrome, which can cause facial deformities, heart problems, low birth weight and mental retardation. Even moderate drinking can impact your baby's brain development.

If you're concerned because you drank alcohol before you knew you were pregnant or you think you need help to stop drinking, talk with your health care provider.

What you need to know

There are recommended weight gain guidelines for pregnant women. Gaining the right amount of weight will make it easier to shed pounds after delivery and will prepare your body for breastfeeding. It also helps protect the health of your baby.

What you can do

See your health care provider if you are concerned about your weight. She or he can help you determine the weight gain that is right for you.

Weigh to Grow

You're pregnant, right? So you get to eat as many french fries as you want, right? Wrong! You need to be careful about how much weight you gain during your pregnancy. Gaining too much or too little can be harmful to you and your baby. How many pounds you need to add depends on how much you weigh when you become pregnant.

(“Pregnancy Nutrition”, 2007)

Nutritional Needs

The food guide below identifies important food groups to include in a teen pregnancy diet, and a minimum daily recommendation is listed for servings. This guide is not adjusted for calories, and there is not enough total food in this table to support a healthy pregnancy. The table only provides a quick screening for girls to see if they are eating the minimum amount of specific
nutrient-rich foods. Additional calories will need to be added, but meeting these minimum servings will help ensure good nutrient intake.

<table>
<thead>
<tr>
<th>Nutrient Rich Food Group</th>
<th>Servings Needed</th>
<th>What equals a serving</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milk &amp; High Calcium Foods</td>
<td>Choose 4 - 5 servings per day</td>
<td>• 1 cup milk or yogurt</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 2 cups cottage cheese</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 1 1/2 oz cheese</td>
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<tr>
<td></td>
<td></td>
<td>• 1 cup fortified soy beverage</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 1 1/2 cups ice cream</td>
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<tr>
<td></td>
<td></td>
<td>• 1 cup calcium-fortified fruit juice</td>
</tr>
<tr>
<td>Protein Foods</td>
<td>Choose 2 - 3 servings per day</td>
<td>• 3 oz cooked meat, fish or poultry</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 2 eggs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 1 cup cooked beans</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 4 tablespoons peanut butter</td>
</tr>
<tr>
<td>Breads and Grains (whole grains</td>
<td>Choose 6 or more per day</td>
<td>• 1 slice bread (1 oz)</td>
</tr>
<tr>
<td>(whole grains are best)</td>
<td></td>
<td>• 1 small tortilla</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 1/2 cup cooked cereal</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 3/4 - 1 cup cold cereal</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 1/2 cup cooked pasta</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 1/3 cup cooked rice</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 1/2 English muffin</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 1/2 small bagel</td>
</tr>
<tr>
<td>Fruits and Vegetables</td>
<td>Choose 5 or more servings per day</td>
<td>• 1 cup raw fruit or vegetables</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 1/2 cup cooked vegetable</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 1 medium piece fresh fruit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 1 cup green salad</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 1/4 cup dried fruit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 1/2 cup fruit juice</td>
</tr>
<tr>
<td>Unsaturated Fats and Oils</td>
<td>Choose 2 - 3 per day</td>
<td>• 1/8 avocado</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 1 tsp vegetable oil (olive or canola oil are best)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 1 tsp mayonnaise</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 6 almonds (1/4 oz nuts)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 20 peanuts</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 1 Tbsp sunflower seeds</td>
</tr>
</tbody>
</table>

**Fluids**

Drinking plenty of fluids and keeping well-hydrated is important when you are pregnant. You should be drinking at least 8 - 10 cups of water each day. Hot weather and physical activity can increase your fluid needs greatly. You should be urinating frequently and your urine will be pale or colorless if your fluid intake is adequate. Try to drink water instead of soda, fruit punch or
caffeinated beverages. Many pregnant teens gain too much weight if they consume large volumes of calorie containing beverages.

**Fiber**
Constipation can be a problem during pregnancy. Eating foods rich in fiber can help prevent it. Choose whole grains, beans, fruits and vegetables several times each day to ensure your fiber intake is adequate. High fiber breakfast cereals can be helpful. Read labels to find a cereal that has at least 5 grams of fiber per serving. Again, water intake is important to help fiber keep intestines moving.

**Vitamins and minerals**
Pregnancy increases your body's need for many vitamins and minerals. A prenatal vitamin mineral supplement is often prescribed at your first prenatal visit. If you are already taking any nutritional supplements be sure to discuss this right away with your doctor as too much supplementation can be harmful.

(“Teen Pregnancy”, 2000)
Appendix C.

(Consent, Confidentiality Statement & Release of Information)

_Pregnancy support group consent, confidentiality statement and release of information_

I have been informed that this pregnancy support group is in no way intended to replace routine prenatal.

I have been informed that pregnancy has risks for me and my unborn child and I should continue to visit my prenatal provider as prescribed. Early and regular routine prenatal care will help me and my baby remain healthy and prevent or treat problems that may develop. I have been informed that any materials obtained during sessions of this pregnancy support group are for information purposes only and should be discussed with my physician.

I have read this consent form. All of my questions have been answered to my satisfaction. I consent to participate in the pregnancy support group at Mars Hill College. I have been informed that certain personal information such as name, date of birth, address and any other identifying information will be retained by the wellness center staff and will be kept confidential. I have been informed that this pregnancy support group is a pilot project and I may be asked anonymously to provide my thoughts and opinions as they relate to this support group in order to determine feasibility and sustainability of this program. I consent to the release and use of this anonymous information to Laura Pless RN, BSN for use in her graduate studies and do not consider this information confidential. I will be given a copy of this form after it has been completed. If I have any questions or concerns I can call (828) 689-1243 and speak to the Nurse on call. I may choose to drop out of this support group at any time without repercussions.

It is the policy of Mars Hill College Wellness Center that users (i.e., employees, medical staff, students, volunteers, and outside affiliates) shall respect and preserve the privacy, confidentiality and security of confidential information.

I acknowledge that breaches of confidentiality are a serious offence that could result in disciplinary action, including dismissal.

____________________________  ______________________________
Signature of participant               Date

____________________________  ______________________________
Person obtaining consent               Date
Appendix D.

**Pregnancy Support Group Survey**

For Questions 1-10 Please rate your level of agreement or disagreement with the following statements (mark only one box for each statement):

<table>
<thead>
<tr>
<th>Question</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Not Sure</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.) I feel this support group is valuable and would like to see it offered to others in the future.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>2.) During meetings I attended I felt others listened and cared about what was important to me.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>3.) During meetings I attended I felt that I could be open and honest in the group discussions.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>4.) I felt a connection with my peers in this group.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>5.) The support group meeting place is convenient.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>6/) The support group meeting time is convenient.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>7.) The meeting facilities are adequate and comfortable.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>8.) The staff is friendly and made me feel comfortable.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>9.) The staff is professional and knowledgeable.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>10.) I felt the information and materials provided were valuable.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
For 11-16 please rate the following statements on a scale of 1 to 10
Circle your answer:

11.) Before joining the support group I think my level of knowledge about nutrition was: 1 2 3 4 5 6 7 8 9 10

12.) After the support group meeting on nutrition my level of knowledge about nutrition is: 1 2 3 4 5 6 7 8 9 10

13.) Before joining the support group I think my level of knowledge about exercise was: 1 2 3 4 5 6 7 8 9 10

14.) After the support group meeting on nutrition my level of knowledge about exercise is: 1 2 3 4 5 6 7 8 9 10

15.) Before joining the support group I think my level of knowledge about parenting was: 1 2 3 4 5 6 7 8 9 10

16.) After the support group meeting on nutrition my level of knowledge about parenting is: 1 2 3 4 5 6 7 8 9 10

For 17-20 please indicate whether the following have decreased, stayed the same, or increased. Mark your answer in one box only for each statement:

17.) Since joining this support group my level of anxiety about my pregnancy has: Decreased ☐ Stayed the Same ☐ Increased ☐

18.) After joining this support group my level of stress surrounding my pregnancy has: Decreased ☐ Stayed the Same ☐ Increased ☐

19.) The likelihood that I will utilize the public health services available to pregnant young women (i.e. WIC, Medicaid, etc.) since joining the support group has: Decreased ☐ Stayed the Same ☐ Increased ☐

20.) My comfort level with my ability to care for my baby after it is born has: Decreased ☐ Stayed the Same ☐ Increased ☐
Short Answer:

21.) What topic discussed was most valuable and important to you?

22.) What topic discussed was the least important or valuable to you?

23.) What topics would you like to see added to or removed from the support group lessons?

Additional Comments or Suggestions:
References


Casey Introduces Pregnant Women Support Act (2007, December 5). Democrats for Life of America. Retrieved February 11, 2008, from http://rightdemocrat.blogspot.com/search?updated-min=2007-01-01T00%3A00%3A00-08%3A00&updated-max=2008-01-01T00%3A00%3A00-08%3A00&max-results=50


http://www.schs.state.nc.us/SCHS/data/pregnancies/2006/


