Meeting the Unmet Need:
Making the Case for a New Family Planning Service Delivery Paradigm.

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A Master’s Paper submitted 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 Public Health Leadership Program.

Chapel Hill

2012

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**Introduction**

The Centers for Disease Control and Prevention (CDC) has called family planning one of the greatest public health achievements of the 20th Century (CDC, 1999). Indeed, family planning has led to a decrease in maternal and infant death, as well as an increase in women’s access to education and relative economic independence (Tsui, McDonald-Mosley & Burk, 2010).

The success of the first marketed birth control pill in 1960 led to a diversification of family planning methods, offering women more options for spacing childbirth for practical reasons and/or health concerns. Today, women have a multitude of family planning options. Women have numerous birth control pills from which to choose, as well as other methods such as patches, rings, injectables, implants, hormonal and non-hormonal intrauterine devices and several types of sterilization procedures. Eighty-nine percent of fertile women in the United States who are sexually active but do not want to become pregnant will use some method of contraception in their lifetimes (Mosher & Jones, 2010). Women who are not currently using a modern method of birth control, but who do not wish to become pregnant have been categorized by researchers as women with “unmet needs” (Singh, Darroch & Ashford, 2009; Guttmacher Institution, 2012). Women in the “unmet needs” category are considered to be at risk for unintended pregnancies, and there is a need for increased outreach in public health efforts to help these women avoid the potential myriad of negative physical and psychosocial outcomes that can result from such pregnancies (Tsui et al., 2010; Guttmacher Institution, 2012).

**Statement of Purpose**

This paper argues that existing resources should primarily focus on meeting unmet needs in birth control options to prevent unintended pregnancies and to acknowledge the equal importance of
pregnancy planning. Lifflander, Gaydos and Hogue (2007) feels pregnancy simply cannot be allowed to happen; therefore, three levels of planning are needed:

1. Making an active decision to get pregnant because life circumstances are favorable for pregnancy;
2. Active decision and attempt to conceive by partners
3. Deliberately taking steps to conceive (Lifflander et al., 2007).

Pregnancies based on deliberate preparation, rather than those that occur due to chance or a lack of prevention, are the only “planned pregnancies.” Further gains in the health and well-being of mothers, children and their communities are insured by encouraging women to not only avoid unintended pregnancies but to also actively plan and prepare for pregnancies.

The traditional form of delivering family planning services for uninsured and low-income women is provided through health departments, Planned Parenthood, and federally qualified health centers. Manu use Title X federal monies to subsidize services and methods provided. Private clinics and providers are accessed by more affluent women who can pay out of pocket or with private insurance. Public centers normally provide women with brochures or short discussions of options and allow the woman to choose family planning methods based on health concerns, a desire for more children and their selected time frame for their next pregnancy. However, some women must also make decisions based on purely practical considerations such as, affordability and/or what options may be available at their particular subsidized clinic. In addition to financial concerns, women and couples of lower income may have limited access to family planning centers. Transportation may be difficult, services hours may be inconvenient, language barriers might exist and patients might be made to feel uncomfortable accessing
services due to the tone of the clinic. Comprehensiveness of services provided may also be of concern (for example, those inclusive of men and partners). Such barriers inhibit women and men from taking full advantage of the many family planning options available that would help them avoid unintended pregnancies and carefully plan for wanted children.

This literature review will use current research to document rates of unintended pregnancy and contraceptive use in the Unites States; effects of unintended pregnancy, both physical and emotional; socioeconomic disparities in unintended pregnancies; male involvement in pregnancy planning; and a review of the effectiveness of programs created to address these concerns.

Evidence from the literature review, such as conclusions based on successes seen in demonstrated effective programs as well as best practices proposed by academic journals, health agencies and professional organizations will help create a new programming paradigm which aims to bridge gaps in service and create a more comprehensive family clinic design. This design will focus heavily on increased community outreach, education and the fostering of community organization and participation. The ultimate goal will be to more effectively meet the needs of women most at risk for unintended pregnancy.

**Literature Review**

Unintended pregnancies represent half of all pregnancies in the Unites States. To state it another way, one in every two pregnancies comes as a surprise to the women and/or partner since they were not planning or preparing for this life changing event (Lifflander et al., 2007). “Healthy People 2020”, the US Department of Health and Human Services’ (US DHHS) 10-year agenda for improving the Nation’s health has goals for educating unintended pregnancies, increasing pregnancy planning and pregnancy spacing (US DHHS, 2012). The US DHHS recommends a
“life stages approach” to care which seeks to address all phases of life from pediatrics to geriatrics and tailors interventions and education accordingly. US DHHS (2012) encourage pre-pregnancy health in the planning of pregnancies with the hope that focusing on women’s health will in turn increase the chance any children she might have will also be healthy. Part of pre-pregnancy health is helping women to be as healthy as possible before they begin to plan their pregnancy. As the number of women of reproductive age with chronic diseases such as hypertension, diabetes and depression rise, so do the risks to mother and baby. The CDC found in 2006 15% of reproductive age women have depression, 7% have hypertension and 3% have diabetes. These numbers may look small but diabetes and hypertension cause real risks to mother and baby such as preeclampsia, placenta abortion, preterm labor, and infant death (CDC, 2011). Depression can impact the maternal child bond once the baby is born. However, research has also correlated depression with other risk factors like smoking and substance abuse, affecting the physical health of mother and baby. These factors can lead to chronic diseases including preterm labor and low birth weight babies (CDC, 2011). Chronic disease and the high rates of obesity that are increasing in the United States add risks and expense to pregnancies. Risk factors caused by chronic disease can be ameliorated by working with women prior to pregnancy to improve their health, and by providing them with resources to plan their pregnancies when they are most healthy and prepared to conceive.

Unintended pregnancies have steadily decreased since birth control’s widespread availability, but the rate reduction stalled in the 1990’s and 2000’s. In 1981, the national rate of unintended pregnancy was just under 60 per 1000, and this number decreased to 49 per 1000 in 2006 (Guttmacher Institute, 2012). These numbers do not reveal the fact that some groups of women have had different experiences with unintended pregnancies. Rates for women in the middle,
upper middle and upper classes, for example, decreased from 45 per 1000 in 1981 to just above 20 per 1000 in 2006, less than half of the national rate (Guttmacher Institute, 2012). The drop in unintended pregnancies for affluent women speaks well to the availability and effectiveness of birth control for those with resources. In contrast, the rate of unintended pregnancy for women at poverty or below has greatly increased, from 100 per 1000 in 1981, to 130 per 1000 in 2006--two and a half times the national rate (Guttmacher Institute, 2012). Rate increases among the poor clearly indicate a need to focus resources among the poor and to tailor services to fit their needs.

Unintended pregnancy is a general term defined as a pregnancy that is either mistimed or one that is actually unwanted. Each situation presents its own set of concerns. An unwanted pregnancy is self-explanatory. Such pregnancies may end in abortion, adoption or in a mother having a child for whom she may be unable or unwilling to properly provide care (Lifflander et al., 2007). A mistimed pregnancy occurs when a mother self-reports as having had a desire to become pregnant, but the pregnancy occurred sooner than expected (Lifflander et al., 2007). Women with mistimed pregnancies often report being happy to be pregnant, although, they were not planning the pregnancy. Self-reports of how women feel about unintended pregnancies may also change as pregnancy progresses. Some women shift from describing her “unwanted” pregnancy to describing it simply as a mistimed pregnancy. This may be the mother adjusting to the idea of being pregnant or because she had “bonded” with the baby she is carrying (Cheng, Schwarz, Dougles & Horton, 2009; Lifflander et al., 2007). However, women in both of these categories, and their pregnancies are still more likely to face health risks due to lack of pre-conception health care, engaging in behaviors such as smoking, drinking alcohol or using drugs before realizing they were pregnant, or exposure to known teratogens. Teratogens can increase the risk of birth defects and are often found in certain work environments and even household
cleaners. Risky pre-pregnancy health behaviors can lead to negative health outcomes, including pre-term birth, neural tube defects and low birth weight. In addition, complications for the mother such as eclampsia may occur leading to a life threatening situation for both mother and baby (Postlethwait, Armstrong, Hung & Shaber, 2009). While there is limited data on numbers or rates of negative health outcomes related to pre-pregnancy behaviors, Postlethwait and coauthors (2009) found an increased rate of low-birth weight babies born from unwanted or mistimed pregnancies as compared to intended pregnancies. Additionally, numerous studies have found increased risk factors among women who have unintended pregnancies such as smoking, illegal drug use and even domestic abuse (Poslethwait et al., 2009; Cheng et al., 2009; Dott, Rasmussen, Hogue & Reefus, 2009). These negative health outcomes and risks have long-lasting effects and costs. Pregnancy planning and avoidance of unintended pregnancy stand to improve the lives of not only women and children, but of entire communities.

**Current State of Family Planning in the United States**

Family planning allows women to prepare for their pregnancies at convenient and healthier times, have fewer babies overall, increase access to pre-conceptive healthcare, decrease infant and maternal death, and limit HIV and other diseases transmitted from mother to infant (Tsui et al., 2010). Although reliable contraception might be one of the ten great public health achievements of the twentieth-century, many women are still not taking advantage of its availability, or may not have easy access to it (Tsui et al., 2010). The Guttmacher Institute (2012) has found most women spend 5 years of their life trying to get pregnant (or are actually pregnant), and 30 years avoiding unintended pregnancies (Gold, Sonfield, Richards & Frost, 2009). Three decades of avoidance allow ample time for careless or improper use of contraceptive methods and for contraceptive failure. Gold and coauthors’ (2009) findings
indicate that, by the age of 45, half of all American women have experienced an unintended pregnancy, and one-third have had an abortion.

Abortion itself can present a problem, with issues of access and safety affecting health outcomes. Abortion access can be vital to maternal health, as some women’s physical health can be put in grave danger with an unintended pregnancy. Yet, abortions can be unaffordable for some women, and difficult to obtain even for those who can pay for the costly procedure. Women faced with negative birth outcomes from complications from chronic diseases, lack of prenatal care or high-risk behaviors like smoking and drinking when there are unable to access safe abortions. Women with unintended pregnancies are more likely to need access to abortions services with 42% of unintended pregnancies terminate with an abortion (Finer & Henshaw, 2006). A lack of abortion providers and access to safe clinics could potentially increase negative birth outcomes such as infant and maternal morbidity and mortality.

A limited number of locations where abortions are provided can make access difficult, particularly for women who cannot leave work during clinic hours and who do not have transportation. To compound this problem of access, recent political efforts to further restrict access with new laws and stipulations designed to discourage women from going through with abortion, such as transvaginal ultrasounds stand to put even more women at risk for carrying unwanted pregnancies to term (Guttmacher Insitute, 2012). The politicization of abortion makes access to contraception even more vital to the health and wellbeing of women and families who wish to avoid unintended pregnancies.

When the total number of pregnancies is investigated, half are found to be unintended, but there are subsets of women who actually have higher rates of unintended pregnancies. Women who
are not using birth control during the month of their conception represent 95% of all unintended pregnancies, and only 5% of unintended pregnancies can be attributed to method failure (Gold et al., 2009). Method failure occurs when a woman is using a modern method as prescribed and still becomes pregnant. A little more than one third of women of sexually active women are not using a modern family planning method, they compose the unmet need. These women that are still sexually active with no contraception represent the unmet need category, a small subset of all sexually active women (Gold et al., 2009; Mosher & Jones, 2010). By focusing on this smaller subset of women, those with unmet needs, resources can be better allocated to those who would most benefit with greater effect on the unintended pregnancy rate.

Almost 62% of women 15-44 years old are taking advantage of contraception and using a modern method, with oral contraceptives (the pill), sterilization and condoms being the most popular (Mosher & Jones, 2010; Tsui et al., 2010). Two of the three most popular methods (condoms and the pill) are short lived and very sensitive to human error, increasing the chance pregnancy could occur even with use (Mosher & Jones, 2010; Tsui et al., 2010). Long term methods include intrauterine devices, implants and several forms of sterilization i.e. Essure, which are available during an outpatient visit. Long term family planning methods are varied and compatible with many women who either no longer want children or choose to wait to have more children, and they are more effective in preventing pregnancy. The general public needs more information about their options and where they can go to receive services.

While most women of fertile age (15-44) are using a modern hormonal and/or device oriented family planning method, 7.4% of sexually active women are not using any method and yet not planning a pregnancy (Wu, Meldrum, Dozier, Standwood & Fiscella, 2008). The data highlights the need to focus on the 7.4% of women who are not using any modern method in conjunction
with an additional focus on moving women from short term to longer term methods as dictated by their desire for spacing or ending their childbearing experience. Lastly, it is important to keep in mind that contraception is not a fixed event, except in the case of sterilization. Wu and coauthors (2008) state that women often change, stop and restart family planning methods often without doctor consult. The dynamic use of family planning methods is important to keep in mind when planning service provision and education programs.

**Research Method for Literature Review**

A literature search was conducted using the UNC-CH database of journal offerings and Google Scholar search (through UNC-CH webpage) between 2002 and the present. Google Scholar is able to access from a wide variety of academic journals similar to those available through other sites i.e. pubmed; academic journals including the American Journal of Public Health and American Journal of Obstetrics and Gynecology. Articles were gleaned from peer reviewed journals and policy papers from the Guttmacher Institute and other similar renowned reproductive health organizations. Study and article topics focused on reproductive health in developing countries with a majority focus on issues and studies in the United States. The literature focused on several main themes that affect use and access to reproductive health and will be discussed below.

**Findings**

**Pregnancy Intentions.**

Numerous studies found a high percentage of women state they do not have intentions of getting pregnant but are not taking any active role in preventing pregnancy. A comprehensive literature review by Tsui and coauthors in 2010 looked at 21 family planning individual level studies and
found 5 studies. The Tsui study found a high percentage of women who claimed they do not want any more children or they wanted to wait but still they remained sexually active without using any form of contraceptive. Wu and coauthors (2008) analyzed data from the 2002 National Survey of Family Growth which asks 7643 women from across the country questions about their reproductive health and histories. Tsui and coauthors’ (2010) literature review and the study conducted by Wu and coauthors (2008) highlights the issue of nonuse by what Wu labeled “ambivalence”. Ambivalence is difficult to quantify as it is an emotional issue often eluding statistical analysis. However, it is important as it directly affects uptake and correct usage of contraception. The ambivalence Wu et al. (2008) discusses alludes to women who say they do not want to be pregnant but are not actively doing anything to prevent it. However, the “why” is not understood. Further research is needed on the individual level to better understand why is a disconnect between women’s stated desires and actions. Once there is a better understanding of the ambivalence, outreach and resources allocation can be made in more effective ways to reduce unintended pregnancy.

A pregnancy risk study conducted by Schrieber, Whittington, Cen and Maslankowski (2011) is another example of the variance between stated desire and action. This study enrolled 200 women in Philadelphia and followed them for between 12 and 30 months to study microbicides’ effect on HIV acquisition. Women at risk for HIV were recruited to participate in this study if they signed a letter stating they did not wish to get pregnant for three years (Schreiber et al., 2011). The pregnancy risk study described by Schreiber et al. (2011) ran either concurrently or after the microbicide study to determine if pregnancy occurred during the study. If the study participants became pregnant during the specific timeframe they would not be able to continue in the microbicide study. The women who became pregnant were, however, counted and
interviewed in the pregnancy risk study (Schreiber et al., 2011). Although condoms were available at the clinic and referrals were given to those looking for other family planning options, no evidence exists that information was given to individuals about pregnancy planning. 18% of these women became pregnant while participating in the study (Schreiber et al., 2011). Less than half of the women reported clinic staff gave them information about contraception.

Upon further discussion, it was found women became pregnant for several reasons despite their voiced “desires” (Schreiber et al., 2011). The study reports participants did not choose a highly effective method such as an intrauterine device or implants but were using condoms and other less effective methods. In addition, when changes were made in methodology, there was a higher likelihood of pregnancy even when the change was from a less to a more effective method. Decreased sexual pleasure and changes to the menstrual cycle were chosen as the main reasons for contraceptive change, neither of which addresses the issue of how effective the method is in preventing pregnancy. Partner preference had a statistically significant impact on a woman’s chance of pregnancy with women reporting their “partners were trying to get them pregnant” (Schrieber et al., 2011 p.79). Again, similar to Wu et al. (2008) and Tsui et al. (2010) et al. the data points to an ambivalence about pregnancy and planning pregnancies. All women in the Schreiber et al. (2011) stated a desire to avoid pregnancy but many actions show ambivalence to this desire by choosing sexual pleasure, the menstrual cycle and partner preference issues as the main deciding factors in their contraception selection. The impetus towards ambivalence needs to be better understood and addressed to prevent unintended pregnancy and truly empower women to follow through on their stated desires.

Although the rate of unintended pregnancies has remained constant at 49% in 1994 and 2001, there has been a change in who is having more of these unintended pregnancies (Finer &
Finer and Henshaw (2006) used the National Survey of Family Growth to investigate intendedness of the pregnancy as well as the demographic information about those pregnant women. The rate of unintended pregnancies fell among women under 24 but increased most sharply among women over 30 years old (Finer & Henshaw, 2006). However, the Guttmacher Institute (2012) takes issue with the data on teenage unintended pregnancy rate. In the *Fact Sheet on Unintended Pregnancy 2012* the Guttmacher Institute points out that “traditional estimates” on unintended pregnancy for the age group 15-24 looks at all women while many in this age group are not sexually active (Guttmacher Institute, 2012). Although the rate of unintended pregnancy fell for those 15 to 24 years old the Guttmacher Institute (2012) postulates that the rate change is because the data looks at all women rather than only using those women who are sexually active and at risk for unintended pregnancy. When the two groups are separated, sexually active teens actually have an unintended pregnancy rate twice that of all women and highlight a population that is underserved and needs more resources and access to reproductive health services (Guttmacher Institute, 2012).

A stark difference in pregnancy planning comes into focus when income is examined. Women who live under the poverty line are more than three times as likely to experience an unintended pregnancy than women who live at 200% of poverty, and this number is five times that of women in the highest income bracket (Finer & Henshaw, 2006; Guttmacher Institute, 2012). Unintended pregnancies rates have seen a negative shift from 1994 to 2001 increasing among poor women by 44% but declining among the middle and upper class. (Finer & Henshaw, 2006). The data highlight the risk placed on women in poverty for an unintended pregnancy as well as the growing disparity between the poor and the middle class in terms of reproductive health. To
begin to close the unintended pregnancy gap more understanding about the unique needs of the poor is required and more resources should be made available to this population.

Lastly, race was investigated. Whereas it was found that rates were stable among racial groups from 1994 to 2001, poor blacks and Hispanics represent a stable disproportionate number of unintended pregnancies (Finer & Henshaw, 2006). The Guttmacher Institute (2012) found similar data, reporting that blacks had an unintended pregnancy rate twice that of non-Hispanic whites. Finer and Henshaw (2006) found the percentages vary greatly between racial groups. Blacks report 69% of pregnancy as unintended, and Hispanics following with a rate of 48%. Whites report 42% of pregnancy are unintended. The unintended pregnancy rate disparity between whites and minorities is partially explained by minorities’ overrepresentation among the poor (Finer & Henshaw, 2006). It is postulated that the poor face more difficulty in accessing health services and contraception due to cost, work hours and transportation barriers (Finer & Henshaw, 2006). Many poor women struggle to gain access to family planning services, Title X funds, which provide monies to many clinics for the low income population has declined between 1994 and 2001 when inflation is taken into account (Finer & Henshaw, 2006). Although poverty is an important factor when discussing access, it cannot be the only issue creating the disparities between racial groups and more research is needed.

Another study in Maryland found similar disparity results when it focused on women who participated in the Pregnancy Risk Assessment Monitoring System between 2001 and 2006 (Cheng et al., 2009). Cheng and coauthors (2009) analyzed data from 9048 mothers who had children between 2001 and 2006 in Maryland. Information was gleaned from a series of questions asked of all mothers including pregnancy intent, risk factors, and protective factors (Cheng et al., 2009). The study found both unwanted and mistimed pregnancies were more
prevalent among specific subsets. Cheng et al. (2009) highlights several subsets among this group including those in poverty, black women and those with limited income. Poor black women who were unmarried and had limited education were found to have the highest rates of unintended pregnancies (Cheng et al., 2009; Finer & Zolna, 2011). Knowledge of the need among these subpopulations dictate where resources and program outreach is most needed. However, Cheng et al. (2009) does not highlight how to best serve poor black women with limited education nor does he address what changes are needed in the current system of family planning services. More research is needed into the possible effects of racism and other systematic issues such as education, culture, values, religion or service access and delivery.

**Health Effects of Unintended Pregnancies**

Numerous studies have found there are long and short term effects of unintended pregnancy on women, their children, their families and communities. A related study by Cheng et al. (2009) breaks unintended pregnancies into two groups; women who did not want any more children \ women who wanted more children but at a later date, mistimed. Cheng and coauthors (2009) found women with unwanted pregnancies were more likely to have less than the recommended dose of folic acid, to smoke, to have postpartum depression, to begin prenatal care during the first trimester and to breastfeed for 8 or more weeks. Similarly, women with mistimed pregnancies were more likely to not take the recommended dose of folic acid, to not begin prenatal care in the first trimester and to have postpartum depression (Cheng et al., 2009; Gipson, Koenig & Hindin, 2008).

Schrieber et al. (2011), referenced above, looked at the intentions and actions of women who are at risk of HIV and are participating in a microbicide trial. Women in this study were defined as
at risk for HIV and other sexually acquired infections that present harm to both the mother and the resulting child. Participants also reported not wanting to get pregnant making each pregnancy unintended. Women, such as those that participated in the Schrieber study (2011), who are not actively preventing pregnancies nor planning pregnancies but are in high risk situations such as partners with infection, numerous partners, IV drug users are at risk for unintended pregnancy and unintended pregnancy with possible complications and health risks. Unintended pregnancies in the setting of high risk behavior demonstrate a serious health concern for women and children. Possible adverse outcomes of such unintended pregnancies include passing infection from mother to baby, stillbirth, premature labor, sepsis, neurological damage meningitis and liver disease among others health risks (CDC, 2012).

The Cheng and coauthors (2009) study suggests there are negative health effects for women and children in both mistimed and unwanted pregnancy categories, but to varying degrees. Women who did not want any more children participated in negative health activities like smoking, and both groups avoided protective measures such as taking the recommended dose of folic acid (Cheng et al., 2009; Gipson et al., 2008). Cheng relates these high risk behaviors to possible negative outcomes for mother and child including increased risk of preterm birth, low birth weight and sudden infant death syndrome related to second hand smoke. Women with children born from unintended pregnancies have been shown to less likely to breast fed and have greater risk of depression (Cheng et al., 2009; Orr, 2008; Gipson, Koenig & Hindin, 2008). Depression can affect mother-child bonding due to depression and the lack of health benefits that breast feeding can provide created negative emotional and physical effects. Increased planned pregnancies could reduce the numbers of child born in high risk environments and reduce
potential need for expensive and time consuming interventions, such as behavioral health therapies and physical health treatments.

Additional studies also found negative effects of unintended pregnancy and focused on results for teenagers (Gibson, 2008; Foster, Biggs, Ralph, Arons & Brindis, 2008). Unintended pregnancies among this age group have higher rates of high risk births, school dropouts, and increased risk for poverty than teenagers (Foster et al., 2008). Risks for teenagers are higher as their education is tenuous and many of those who drop out of high school do not return. The study performed by Foster and coauthors (2008) found the top two reasons given by young men and young women as to why they want to delay a child are finances and the attainment of educational goals. Women and men are stating they want to continue their education and having a child could interrupt this goal. However, there is the continued disconnect creating a gap in the uptake of contraceptive services. To reach this particular group, clear and understandable links must occur between delayed child bearing and educational success.

In Maryland, Orr, James & Reiter (2008) completed a similar study to Cheng’s (2009) and found comparable results. Orr and coauthors (2008) correlated the use of alcohol and illicit drugs to women with unintended pregnancies. Women who are currently using alcohol and illegal substance often find it difficult to keep up with appointments for reproductive health and for refilling contraceptive prescriptions (Orr et al., 2008). A risk of unintended pregnancy also presents itself for women who abuse substances who are either unable or forget to take their contraceptives daily. Women who abuse substances also may neglect to use a condom for each sexual encounter if they are in high risk situations, especially when prostituting for continued drug access or who are intoxicated and unable to remember.
The use of alcohol and illicit drugs increases the health risk to the baby by increasing possible negative health effects (Orr et al., 2008). These negative health effects include fetal alcohol syndrome, children born addicted to drugs, increased risk of preterm birth, and low birth weight (Orr et al., 2008). This study also mentions when women combine alcohol consumption with smoking, the risk of preterm labor increases further (2008). Both the Orr and coauthors (2008) as well as Cheng and coauthors (2009) present findings that suggest unintended pregnancies present greater significant avoidable health risks to mother and child than most planned pregnancies. From the data it is also evident that specific outreach is necessary for women who are substance abusers to empower them to prevent pregnancies while using, or to stop using if they wish to get pregnant.

Emotional Effects of Unintended Pregnancy

The physical health effects of unintended pregnancy have been well documented while the emotional has just recently begun to be examined. The study conducted by Cheng and coauthors (2009) found a correlation among women in Maryland who participated in a pregnancy monitoring system and emotional risks, including postpartum depression. Both women with mistimed and unwanted pregnancy had higher rates of postpartum depression than women with intended pregnancies (Cheng et al., 2009; Uscher-Pines & Nelson, 2010). Other studies have found unintended pregnancies resulting in the birth of the child raises the rate of abuse for both the mother and the child. Abuse can lead to further negative emotional outcomes and risk of physical harm (Uscher-Pines & Nelson, 2010).

The stress of abuse can weigh heavily on a mother and child, but there are other concerns connected to the emotional burden of unintended pregnancies including high risk births and
possible health complications. The study presented by Kramer, Lydon, Seguin, Goulet, Kahn, McNamara, and Platt (2009) shows preterm birth presents great risks for the baby and “high pregnancy related anxiety” has been found to increase the chance of pre term birth. Nelson and O’Brien (2011) found women with unintended pregnancies were more likely to not only have higher maternal depressive symptoms, but increased stress levels also continued three years into parenting. Both Nelson and O’Brien (2011) and Kramer et al.’s (2009) studies suggest women with unintended pregnancy have higher levels of depression and anxiety which can impact birth outcomes by raising the chance of preterm birth and other similar complications. The consequences of these behaviors may continue into the toddler years causing maternal depression, and limiting mother/child bonding and leading to possible negative maternal – adolescent relationships in the future (Nelson & O’Brien, 2011).

An interesting study by Uscher-Pines and Nelson (2010) further highlights the emotional impact of unintended pregnancy. The study found emotional stress can put a woman at higher risk of unintended pregnancy resulting in a possible self-renewing cycle of violence creating high risk behaviors leading to more violence (Uscher-Pines & Nelson, 2010). The study conducted in Pennsylvania by Uscher-Pines and Nelson (2010) found women who felt unsafe in their neighborhoods, had histories of sexual abuse; violence in a previous relationship and violence in their current relationship were more likely to report an unintended pregnancy. A woman who experiences stress from outside forces including violent neighborhoods or abusive relationships, enters into an emotional stress cycle, would be at risk for an unintended pregnancy which, in turn, further increases her stress. To end cycles of violence and risky behaviors women often need help from a third party. Intervention and resources, especially in the areas of reproductive and mental health, are also needed in high crime areas for women who are victims of violence.
A study by Goa, Patterson, Carter & Lustini (2008) supports the Uscher-Pines and Nelson supposition by finding women who report at least one episode of domestic violence had a 50% increased chance of experiencing an unintended pregnancy. Uscher-Pines and Nelson (2010) comment in the study that victimization can lead to “depression, psychological distress and physical inactivity” which can have negative effects on a mother’s overall health as well as ability to bond and care for her child (p. 684). Whereas the violence and its secondary effects of depression may occur in women before and during the pregnancy, the data clearly shows the psychosocial effects of violence both recently, and/or in the past can have a profound impact on the pregnancy (Uscher-Pines & Nelson, 2010; Gipson et al., 2008).

Uscher-Pines and Nelson (2010) correlate unintended pregnancy to violence by linking violence to depression and hopelessness. The authors continue to relate this feeling of hopelessness to apathy concerning their general health and reproductive health. Uscher-Pines and Nelson (2010) state women in violent areas are less likely to take an interest in prevention, such as birth control, and often feel unsafe outside of their homes, making visits to clinics improbable. It is the combination of violence and its secondary effects on women and their communities that make unintended pregnancy more plausible for these women specifically, and for violent communities, in general. Women and the unborn child need more resources to help them feel and be safe. Support must also be offered to prevent further unintended pregnancies as the repercussions of both emotional and physical health damage are multigenerational and long lasting.

Male Involvement

Until recently, there has been little data on male involvement in reproductive health and minimal information on men’s role in unintended pregnancy although their participation is clear. A
recent study by Manlove, Terry-Humen, Ikramullah and Holcombe (2008) looked at the National Survey of Family Growth and used data from 2059 interviews with men between the ages of 15-24 to try to better understand trends among young men and their reproductive health behaviors. Manlove and coauthors (2008) found young males’ (15-19 years old) sexual activity showed less than half have had sex and only a quarter are recently sexually active. Sexual activity rates increase for men 20-24 years old with 58% reporting sexual activity in the last month (Manlove et al., 2008). However, even fewer men have reported receiving reproductive health services to prepare themselves for when they do become sexually active (Manlove et al., 2008). Similar to women, minority men are at a higher risk for unintended pregnancy by being more sexually active than the white population. Men of color also experience some of the same issues as minority women including poverty and limited access to insurance, transportation and education (Manlove et al., 2008).

Although black men over represent themselves, in the sense that they represent a higher percentage of the category then they are in the general population, in negative categories such as unintended pregnancy they are more likely to have used a condom during their first sexual experience (Manlove et al., 2008). Although black men were more likely to use a condom during their first and last sexual experience, they were less likely to endorse their partner’s use of another form of contraception. Additionally the rates of condom use decreased with age. The study found more teens used condoms than young adults, increasing their risk of unintended pregnancy (Manlove et al., 2008). The lack of further data represents a need for further research on why there is a decrease in condom use with age.

Research has also found that more minority teens and young adults have fathered children than white teen and young adults. 57% of these pregnancies were unintended (Manlove et al., 2008).
The 57% is a larger percentage of unintended pregnancy than the rate reported for women. As mentioned earlier, the variance between pregnancy intendedness reported by men and that reported by women may be due to the pregnancy experience. Many women change their perception of the intendedness of the pregnancy as the pregnancy progresses and they begin to bond with the fetus. Bonding may occur less often with men as they do not have the physical attachment that creates a close connection to the unborn child.

High unintended pregnancy percentages coupled with the data showing that only 33% of males have received reproductive health education illuminates a need for education (Manlove et al., 2008). The current situation leaves a majority of young men without the tools and education necessary to prevent unintended pregnancies. The number of men without proper health education also highlights an area where resources should be allocated to increase support of family planning methods and to decrease unintended pregnancies (Manlove et al., 2008).

A prior study completed by Kalmus and Tatum (2007) found all men, not just teens and young adults, were receiving inadequate reproductive health education. Kalmus and Tatum’s (2007) analysis found only half of the men, ages 20-44 years old, had received any reproductive health services in the last year and only 30% had received non testicular reproductive health services (2007). Kalmus and Tatum (2007) point out a lack of consensus in the healthcare community about how and what services to provide men that leads to limited education and healthcare being available for men. Kalmus and Tatum further argue the need for a care delivery model for men that would provide necessary education and health services in a male friendly format enabling men to better access needed services to prevent unintended pregnancies and STDs.
A study was completed in San Francisco to determine if men would come to a reproductive health clinic for men and how women would feel about male attendance (Raine, Marcel, Rocca & Harper, 2003). The particular study looked at a family planning clinic that had originally been designed solely for women but was converted into a clinic to serve both men and women. The male clinic was held twice a week in half day sessions (Raine et al., 2003). Peer educators were trained and conducted outreach and condom distribution in the community (Raine et al., 2003). Clinic staff were also trained and educated about men’s use of the clinic, and concerns were addressed and discussed (Raine, et al., 2003). As a result of the intervention, men significantly increased their use of the clinic, with rates of use by increasing by 192% for adolescent men and 118 for adults. (Raine et al., 2003). The study also noted that along with increased male use of the clinic women’s rates of use also increased. Women continued to report a high level of satisfaction with clinic services as men increased their use of the clinic indicating both by satisfaction (Raine et al., 2003). It is, however, interesting to note that most of the men were referred by partners or friends rather than by the peer outreach. Although further research data in larger and more diverse locations is needed, the study illustrates that clinics have the ability to serve both men and women and among the reproductive health benefits in serving men is the decrease in the rate of unintended pregnancy.

As the Raine and coauthors (2003) study found many men were referred by their partners or friends the results point to the importance of relationships in improving and encouraging reproductive health education and service. 600 women were recruited from 10 family planning clinics in Texas to be followed for 3 months for a study by Cox, Shanna, Posner and Sangi-Haghpeyka (2010) to research how women make decisions about contraceptive use and if it is a joint decision with their partners. A majority of the women reported in a questionnaire, made
available in English and Spanish, that contraception use was a joint decision between themselves and their partners. Although there are some family planning methods that women can use without their partner’s knowledge, it has been found that increased involvement by men leads to more consistent use and less discontinuation (Cox et al., 2010). This study did find women who had high risk partners reported they were less likely to involve their partners in contraception choices. A woman’s partner was labeled high risk if she thought her partner had sex with someone else without a condom, used IV drugs or had a STD in the last year (Cox et al., 2010).

The lack of male involvement in the higher risk situations highlights an area of high need for public health practitioners since these relationships can represent higher levels of unintended pregnancies. Women having sex with high risk men would be able to prevent pregnancy by using a reliable family planning method. However, they will still be at risk for STDs, presenting a continued public health concern. Overall, the study found increased partner involvement, consistent use of contraceptives, including dual use (condoms and a hormonal method), are the optimal methods to prevent both unintended pregnancy and STDs (Cox et al., 2010).

One final article on male involvement details the use of peer sexual health educators in Oregon. Cupples, Zukoski and Dierwechter (2010) describe in the journal Health Promotion Practice how peer educators can be effective in disseminating sexual health education and promoting safer sex practices, especially among subpopulations such as men and minorities. The article emphasizes the success of a program is contingent on the selection of the peer educators and the training they receive. High attrition rate among peer educators and the difficulty in building rapport and trust with the target audience can limit the educator’s ability to create positive change. Cupples and coauthors (2010) further explain how a successful program allows for cross training where experienced peer educators, in turn, train staff. The peer educators are uniquely
able to provide trainings as they have grass roots knowledge and experience in the community that staff needs to plan and implement projects and programs. Cupples et al. (2010) suggests that many groups needing resources and knowledge can benefit from receiving information from a peer in a non clinical setting.

**Effective Programs**

A description of effective programs section should be the most prolific part of this paper but is sparse due to lack of published academic literature showing success. Numerous studies about unintended pregnancies and outcomes are available but there continues to be limited data on successful programs. The literature available is not strong and often demonstrates limited success in various aspects of programs rather than general success in an overarching project. The lack of research and data on successful programs and studies that can point out gold standards of care provide further evidence of the need for continued research to determine how best to provide family planning services for underserved and those with unmet need. However some clues on how to better reach the unmet need were given both among the successful programs as well as in studies that identified areas and populations groups in need.

Effective programs exhibited an increased uptake and consistent use of family planning methods and reproductive health services. As there are only a limited number of successful family planning programs those found for this literature review were nestled in other larger more comprehensive programs. Many of these programs are focused on Positive Youth Development (PYD). PYD programs focus on promoting healthy youth, in general, and specifically they attempt to reduce unintended pregnancy as a subset of their more complex agenda (Catalano, Gavin, David-Ferdon, Gloppen & Markham, 2010). There are other types of outreach programs
but they were unable to show success in reducing unintended pregnancy or related risk factors such as early sexual initiations or uptake of family planning methods.

As mentioned above studies by Cox et al. (2008) and Raine et al. (2003) found men were more likely to use condoms and discuss birth control with their partners when they received reproductive health services at a clinic for men. Unintended pregnancy can be decreased in male focused reproductive health services when emotional and educational support is provided for women to continue use of a modern family planning method for men to increase condom use.

Catalano and coauthors (2010) completed a comprehensive review of 30 PYD programs that addressed reproductive health. Of the 30 reviewed programs, only 15 saw improvements in at least one area of reproductive health, including delayed sexual initiation, decrease in sexual frequency, fewer pregnancies, decreased number of sexual partners, and increased use of family planning methods (Catalano et al., 2010). The effective programs incorporated a variety of skill building goals like pro-social bonding and social, emotional, and behavioral competence (Catalano et al., 2010). Such activities included exposing the children to new experiences like museums, zoos and plays while others taught communication skills and provided mentors (Catalano et al., 2010). The successful programs have embedded the activities into pre-existing community organizations such as schools and after school youth oriented programs i.e. Big Sisters/Big Brothers (Catalano et al., 2010).

A majority of the successful programs provided the children with new opportunities and experiences outside normal activities and beyond their communities. However, these recipes for success cannot be assumed to be the prototype for effective programs in general. (Catalano et al., 2010). Catalano and coauthors (2010) reviewed 15 successful programs, and not one
organization saw success across all goal areas. In fact many documented limited change, providing further evidence to the already noted need for continued research on issues of reproductive health and prevention of unintended pregnancy. Unfortunately, too little data is still available to propose a conclusion or suggest an effective strategy to reduce unintended pregnancy among adolescents. However, the effective studies demonstrate that incorporating reproductive health education and services into already existing comprehensive youth outreach programs have a higher chance for success. And different models may be needed for different populations and communities.

The March of Dimes (2012) promotes the “Every woman, Every time” idea where healthcare practitioners are encouraged to discuss family planning with women of fertile age at every visit. The idea of reaching out to women about reproductive health and family planning at each encounter is also promoted by McEneaney and Hong (2009) in her article for nurse practitioners. There is no evidence to show its success, but the article suggests, and the March of Dimes agrees that promoting family planning options often will encourage women to plan pregnancies and resources to unintended pregnancies (McEneaney & Hong, 2009).

The lack of evidence on successful programs pushes the onus onto the interpretation of maternal and birth outcomes, disparities, and the unmet need for services. Interpreting the successful program leads the way toward formulating a new delivery paradigm. The new delivery system will need to build into its organization strategies to test for success and failure. A need also exists for a system to amend and change the design allowing for continued improvements as the gold standard has yet to be developed.

**Policy Proposal**
Need for a new paradigm

A new family planning service delivery model needs to address the stagnation of the unintended pregnancy rate, which hovers at 50% of all pregnancies, by promoting its further decline. Pregnancies that are not planned and prepared for fall short of the ideal and are unable to properly protect the physical and emotional health of the mother and the child. Not only has there been stagnation in the national rate of unintended pregnancy but there has been increasing rates among traditionally disadvantaged populations. The new paradigm must focus on these underserved groups by addressing a series of factors including clinic setting, services provided, outreach, and quality improvement. The promotion and implementation of a new system require strong leadership as the old system has remained in place for decades, and structural change is often resisted.

The new system will address traditional barriers to “care” to encourage women and couples whose needs traditionally go unmet. Within the suggested paradigm, those whose are typically underserved will have greater opportunities and impetus to take advantage of family planning services. Barriers to procuring care include transportation and clinic location, service hours, affordability, comfort level and comprehensiveness of services (Documet, Green, Adams & Weil, 2008). As Armstrong (2003) asserted, “young men will engage in programs that are accessible, affordable, culturally sensitive, rooted in the community and tailored to their needs” (p.222). The following discussion will make some evidence-based recommendations for improving the unmet needs of populations at higher risk for unintended pregnancies.

Accessibility
Since it is vitally important that clients actually arrive at the clinic doors, the suggested paradigm must incorporate the issues of clinic location and transportation when reviewing clinic accessibility (Armstrong, 2003). Programs strategically located in areas where targeted clients live make it easier for them to get to the clinic (Armstrong, 2003). Women and men in the unmet need category have been found to be low income and often lack their own transportation. Even in areas that have quality public transportation, many people may lack the funds to get on the bus. A correlated point on accessibility is that of service hours. Low wage jobs often do not offer sick leave and getting time off to go to the clinic can be difficult. The service delivery paradigm offered in this paper requires that clinics be neighborhood based and offer some evening and weekend hours to allow for more people to access services.

**Services Provided**

As the American Congress of Obstetricians and Gynecologists (ACOG) (2011) suggests, best practices for closing the gap for women receiving gynecological and obstetric services is to provide a more comprehensive plan. The suggested new paradigm also recommends providing innovative and comprehensive services to women and men. Services will include, per the ACOG (2011), STD screening and counseling, intimate partner screening, preconceptive care, full range of family planning options and services, and breast feeding support. In addition, and as supported by Armstrong (2003), services for men will also be provided, including family planning support for them and encouragement to take a more active role in their own health and that of their partners. Men can be supportive and accompanying their partners to their visits as well as play an active pregnancy planning and condom use.
Added attention will be focused education and self-empowerment rather than traditional brochures, lectures and poster formats promoted by many clinics and health departments. The systems approach described in *Planning Health Promotion Programs* details the importance of tailoring interventions to the situation and the individual (Bartholomew, Parcel, Kok, Gotlieb, & Hernandez, 2011). Pre-printed pamphlets and handouts cannot be appropriately tailored to the individual. A health educator can work one on one with an individual to meet their needs for reproductive health education and services. However, there is also a place for community-based flyers that are tailored to the specific area and population (Bartholomew et al., 2011).

The new paradigm promotes an interactive collaborative clinic that views the client as the most important part of its decision making and service providing system. As evidenced from several successful positive youth development programs that noted improvement in reproductive health outcomes, the paradigm will promote integrating services within other life skills and community based programs (Catalano et al., 2010). Examples of these programs would be to locate clinics in schools and after school programs where students and parents can access services. In addition, support can be provided within community centers already providing neighborhood services and education. Nesting family planning programs in already trusted locations and within dependable programs would allow for buy in by the community and foster faster uptake of services.

The Office of Family Planning in California (PACT) has put together a set of recommendations that are compatible with the recommendations in this paper. In addition to providing comprehensive services within a pre-existing community environment or organization, PACT suggests using new media for better outreach to the community, especially younger residents (Bixby Center, 2006). Women and men will be provided with information about reproductive health and specifically family planning methods in a variety of interfaces. Computer labs
available in community centers will be a place for students to do homework and apply for jobs among other things. To interface with the technology based educational components there will be interactive family planning/reproductive health games and educational programs that are client centered. These games will be client driven, informing the client about their options and helping them choose what method will work best for them, privately. Clients can come in to use the computers and either make an appointment for services, ask questions or come back when they feel ready.

As more people use text messages, agencies will need to adapt to these changing technologies (Levine, McCright, Dobkin, Woodruff & Klausner, 2008). Often low income residents may have access to texts but not to minutes on their cell phones. Text messages can be an easy way to communicate and to provide outreach and follow up as well as education to a mobile population (Levine et al., 2008). Clients will be able to sign up at the clinics and online for text and email reminders about services and needed family planning follow ups. In addition to the tech-savvy methods, traditional educational sessions and groups will be offered that are staff and client lead. The sessions will allow those who want personal interaction in their education to learn and choose their family planning options. All these techniques will be reinforced and encouraged in the community center’s educational and recreational programs, and promoted on social media sites.

Text4baby is an already implemented national program that allows pregnant women to receive text messages on a variety of maternal and child health topics. Text4baby was developed based on that popularity of text messages and studies showing that texting health education messages has been effective with smoking cessation, weight loss and diabetes management (Jordan, Ray, Johnson & Evans, 2011). Jordan and coauthors (2011) report that over 70% of women with
lower incomes (less than $30,000/yr) and less than a high school diploma still have access to text
message enabled cell phones where they might not have access to the internet. The program
works by women subscribing to the program by texting baby (bebe for Spanish) to a certain
number and then they receive three messages a week which can be linked to clinic services
(Jordan et al., 2011). Text messages are free even for those phones that have not subscribed to
text messaging packages. While the messaging service has proven to be popular and the
information is at least being disseminated, there have not been studies on health results based on
the texts (Jordan et al., 2011). Although Text4baby is focused on prenatal concerns it would be
easy to adjust texts to focus on family planning information and options. Patients could tailor the
service to their particular contraceptive need, to remind them of depo shot or an everyday
reminder to take their pill.

The other service provided by the clinic will be a mentoring and peer education program
matching mentors/educators with clients based on a variety of indicators including the desired
family planning option. The mentors and peer educators will be available to the client to ask
questions and to provide ongoing support.

PACT continues to stress the importance of peer mentoring and how it can be successful for
teens, recommending mentoring for teens and adults. (Bixby Center, 2006). Mentoring is vital
for consistent use of a family planning method since many abandon it after a short period of time
because of a misunderstanding of its use and side effects. By providing a knowledgeable peer to
answer questions and give reassurance, a client may be able to avoid lapses in use when there is
a risk for unintended pregnancy. In addition to the peer mentor providing facts and knowledge
about sexual health, they are also able to provide emotional support, which can be crucial to
many clients in high risk situations or those who are socially isolated. The mentor can serve as a lifeline as a client makes important life decisions.

**Comfort**

The most important service this clinic will provide is creating a warm and welcoming environment where both men and women will want to come and access services. As discussed above, men are vital to not only their own reproductive health but also to the women with whom they interact. To make men feel they are welcome, there should be posters and areas dedicated to their needs and concerns. Men could be made to feel more welcome by including posters and initiating outreach about fatherhood, family planning methods, and sexual health concerns for men. Men should be actively invited to participate more in reproductive health by being partners, role models and support systems for the women in their lives. Men should be encouraged to support women to engage in healthy practices like breastfeeding, reminding them to get their shot every three months, to take their daily birth control pill or prenatal vitamin.

In addition, as this new clinic strives to serve more minorities and ensure their clinic experience is positive, staff must be continually trained on best practices and the cultural norms of working with a variety of ethnic and racial groups. A presentation by Hart, Silva, Tein, Brown, and Stevens with the Altarium Institute (2009) on *Strategies for Providing Culturally Competent Care in Title X: Funded Family Planning Clinics* encourages these approaches to best serve all clients. Continuous trainings and in- services will be offered, and feedback will be always encouraged from staff and clients via anonymous, in person and online surveys. Interpreters and clinic information will be provided in a variety of languages. The history of a community can affect how the population use and access health services. The new clinic paradigm will put an
emphasis on the staff and administration understanding the communities’ history. They will tailor services and outreach that are sensitive to possible perceived injustices or mistrust of the healthcare system. By addressing possible resistance and mistrust head on, rapport and trust can be reestablished further encouraging use of family planning services.

**Quality Improvement**

Continuous quality improvement will be a goal and priority for the clinic. All public health leaders are charged with the responsibility to their communities to continuously improve the health and wellbeing of their communities. The size of the clinic will determine the length of time staff will spend on quality improvement. However, regardless the size of the clinic, this new paradigm dictates the staff must dedicate time to review issues of how best to serve patients, document encounters, bill and collect revenue, etc. (Batalden & Davidoff, 2007). During monthly all staff meetings that include both administrators and entry level workers, the staff will address ongoing quality improvement issues and staff and client complaints as they occur.

Following each visit, clients will also be encouraged to give feedback via written evaluations, and a survey link on the clinic website will be available. Phone questionnaires targeting a random sampling of clients to gauge satisfaction will be conducted biannually. In addition to client focused services, there will be a continuous evaluation of best practices for service delivery, laboratory, pharmacy, finance and medical records to insure the clinic functions most efficiently. These evaluations will be coordinated by staff teams who review literature, examine their own practices, and make recommendations to administration. Surveys will be compiled quarterly and reviewed at staff meetings. The quality improvement committee will be charged with compiling data and producing a plan to be approved by staff for improvement. By involving all staff, employees will feel connected to a team addressing a problem and take ownership in
finding a solution. Quality improvement is key to not just enhanced clinic efficiency but in patient wellbeing and care. It is also crucial to returning clients and continued use of family planning services (Batalden & Davidoff, 2007).

**Proposed Outcomes**

Proposed outcomes from implementation of this paradigm are numerous. There will be increased use of the clinic by young women 15-24 and by men. There will be an increase in clients who come in with support, including partners and parents. More clients, partners and parents (when applicable) will be encouraged to come to participate in educational services and decision making processes.

There will also be an increased use of long term family planning methods by women. These will include implant, intrauterine devices including for nulliparous women and sterilization for men and women. Sterilization education will be provided at the clinic and performed at partnering hospital and day surgery sites.

Increased consistent use of family planning methods will be one major improvement seen in the community as a result of the new clinic paradigm. Women will be empowered to choose an option for which they can be consistent, and offered timely, based on need and contraceptive choice and appointments to change to another method if needed. By fully informing women and providing them with numerous options, higher levels of satisfaction will be obtained with their chosen method, and consistent and continuous use will occur. However, in situations where a method does not work, appointments will be available for quick changes alleviating periods of time when women will be without a family planning method. Every patient will be offered a follow up with ample time based on their choice of family planning method. Additionally, text
reminders will be offered for appointments as needed. If a client signs up for text messages she can also receive daily reminders for the pill, weekly reminders for the patch and quarterly reminders for the Depo-Provera shot.

Finally, there will be increased client satisfaction with their clinic. Women, men and the community at large will feel connected to the clinic as a place that will respond to each individual and provide solutions to the issues they face in a respectful and welcoming manner. The community will be encouraged to feel a part of the clinic as their feedback is received, changes are quickly implemented when issues arise, information is disseminated to the community through media and internet sites, and biannual community meetings are held to provide updates and requests for more feedback.

Overall, these outcomes will lead to less unintended pregnancies and an increase in the number of planned and well prepared for pregnancies and births.

**Discussion**

**Limitations**

The numerous papers, articles, discussions and studies on the issue of family planning and unintended pregnancy; however, there does not seem to be a consensus with respect to best practices on how to provide and promote contraception. Although there exists various data on which methods women use in the United States and how often they use them, there is a lack of data on which programs work to provide contraception for women in the “unmet need” category.

As discussed in this literature review, a majority of women in the unmet need category are poor and of ethnic minority status. The dearth of articles on successful programs and data on what motivates women to plan their pregnancies show that there is a need for more research and
interviewing of women to find out what motivates them to have children, space their children and use family planning resources. Innovative research is vital to attracting populations whose needs must be better understood and often do not participate in studies such as minorities and women of low socio-economic status (SES). An increased emphasis in lower SES communities about health literacy and education, in general, would help inform women of the need to become involved in their own healthcare and value participation in studies and research for their own personal gain and also for the betterment of their communities.

Another area needing further research and investigation is physical locations of clinics, and how to best encourage people to visit them. The article search results on this topic were negligible, but this concern can be crucial to the success or failure of a clinic.

**Conclusions**

In order to reach the goals set by the WHO and Healthy People 2020 (2012) and to improve the lives of individuals, families and communities, there must be a reduction in the rate of unintended pregnancies. The data clearly show outreach and current resources have been effective for middle and upper class white women but have failed for minorities and the poor, both men and women. To address this disparity, a new paradigm is needed to foster community understanding of the issue which includes improved and more comfortable and welcoming environments providing information and services, and easier access to these locations. Unplanned pregnancy is an issue that urgently must be addressed to enhance the lives women, their partners, their children, and the communities where they live.
References


