# TOBACCO USE DURING AND AFTER PREGNANCY: THE SMOKING BEHAVIORS OF AFRICAN AMERICAN WOMEN AND THEIR ATTEMPTS TO QUIT

by

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Submitted to the Graduate Faculty of the

Graduate School of Public Health in partial fulfillment

of the requirements for the degree of

Master of Public Health

University of Pittsburgh

2007

UNIVERSITY OF PITTSBURGH

GRADUATE SCHOOL OF PUBLIC HEALTH

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Abstract

Minorities suffer disproportionately from tobacco smoke-related morbidity and mortality nationwide. Tobacco-related illnesses are responsible for approximately 47,000 deaths of African Americans annually. Furthermore, greater tobacco- related health disparities exist among African American women in the state of Pennsylvania and the city of Pittsburgh; as the local and state maternal smoke rates exceed the national average. Additionally, low birth weight and infant mortality rates linked to maternal smoking has been disproportionately elevated among African American women in this geographical area. African American mothers who quit smoking generally have higher relapse rates than their Caucasian counterparts. Research limitations in understanding the smoking cessation, self- quitting and relapse prevention among African American women particularly in Pittsburgh, PA; serves as a foundation for this study. Thus, two focus groups were conducted with a sample of 13 African American maternal smokers in the Pittsburgh area to assess their smoking and quitting experiences as well as their unmet needs for cessation treatment. A brief survey was administered to ascertain the participants' socio demographic characteristics. The data collected mirror previous research as nicotine addiction, stress and poor social surroundings act as barriers to successful quitting. The women identified willpower as the key to permanent smoking cessation but lack the self-efficacy to quit.

Recommendations for advanced investigations and cessation programs for this population are provided. The findings from this exploratory study are significant to public health research as they provide a guide for future research and offer valuable insight for modifying and creating effective smoking cessation interventions for African American women; which can produce long term effects by decreasing the maternal smoking rate disparity in Pittsburgh, Pennsylvania.

## TABLE OF CONTENTS

## LIST OF TABLES

# PREFACE

I would like to acknowledge Dr. Stephen B. Thomas at the Center for Minority Health for sponsoring this study. I would also like to thank Ms. Mattie Woods at the Center for Healthy Hearts and Souls for her partnership and contributions to this study through the recruitment of study participants as well as providing a hosting site, resources and additional support.

# 1.0 INTRODUCTION

Tobacco use is attributable to the leading and most preventable cause of death in the United States (Centers for Disease Control & Prevention, 2004, 2005; Greaves & Jategaonkar, 2006). The World Health Organization (WHO) considers tobacco use and the mass manufacture of tobacco products as "a dire threat to world health," responsible for the annual deaths of fivemillion worldwide and 430,000 adults nationwide (Centers for Disease Control & Prevention, 2004, 2005; Greaves & Jategaonkar, 2006; World Health Organization, 2006). Second-hand smoke exposure from cigarette smoke is one of the most common, deadlier forms of tobacco use (U.S. National Institutes of Health & National Cancer Institute, 2004). Second-hand smoke exposure causes an estimated 3,000 deaths of non smokers annually in the United States (U.S. National Institutes of Health & National Cancer Institute, 2004). Cigarettes contain hundreds of carcinogenic chemicals such as benzene, ammonia, arsenic, formaldehyde, hydrogen cyanide, and vinyl chloride (United States Department of Health and Human Services, 2006) . As a result, cigarette smoke accounts for 87% of lung cancer deaths (U.S. National Institutes of Health & National Cancer Institute, 2004). Tobacco smoke is legally responsible for cancers of the pharynx, larynx, esophagus, oral cavity, bladder, kidney, cervix, and stomach (U.S. National Institutes of Health & National Cancer Institute, 2004). Additionally tobacco smoke causes chronic conditions such as heart disease, cataracts, emphysema, and stroke (U.S. National Institutes of Health & National Cancer Institute, 2004).

Furthermore, cigarette smoke can cause poor pregnancy outcomes such as intra uterine lung growth, low birth weight, premature births, sudden infant death syndrome (SIDS), infant mortality, and other adverse health outcomes (Abrahamsson & Ejlertsson, 2000; Avery & Stallings, 2003; Beato, 2003; Hofhuis et al., 2003; Law et al., 2003). Abrahamsson and Ejlertsson (2000) showed an estimated relative risk between 1.65 and 1.78 (after controlling for multiple confounding factors) was detected for sudden infant death syndrome (SIDS) in infants exposed to cigarette smoke during pregnancy. Tobacco smoke can have other negative affects on infants by creating infant acute lower respiratory illnesses, systematic pediatric asthma, neurological dysfunction, and a host of other illnesses (Hofhuis et al., 2003). In children, tobacco smoke has been shown to slow lung growth and cause other respiratory problems such as severe asthma, acute respiratory and ear infections, bronchitis, and pneumonia (United States Department of Health and Human Services, 2006). Not only does smoking have innumerable known and unknown health risks, it also has a negative impact on the economy; as an annual $1.4 billion is directed to health-care costs for neonatal smoke-related illnesses (Centers for Disease Control & Prevention, 2004; Centers for Disease Control & Prevention & Healthy People 2010, 2005).

Despite the known health risks, many pregnant and post-partum women continue to smoke (Abrahamsson & Ejlertsson, 2000). In the 1999 National Household Survey on Drug Abuse (NHSDA) report, 17% of women reported smoking during pregnancy (Substance Abuse and Mental Health Services Administration, 2001). In 2000, there was a 12% national average maternal smoking rate compared to 15.8% for the state of Pennsylvania, and a rate of 22.7% for the city of Pittsburgh, Pennsylvania (Buchanan, 2006).

Tobacco smoke has proven harmful and potentially deadly for all people regardless of race, gender, or age; however it disproportionately affects some racial groups more than others. Though African Americans generally have lower overall tobacco smoking rates, they are more prone to develop smoke-related illnesses than their Caucasian counterparts (American Lung Association, 2006). In addition, African American females experience a higher disparity in birth outcomes than Caucasian females generally and partially due to cigarette smoking. Moreover, African American females have nearly twice the infant mortality rate (2.3%) compared to Caucasian females (1.3%) (Chang et al., 2003).

Federal, state and local initiatives have been enacted to combat this widespread public health problem. One example is the national Healthy People 2010 initiative which identifies tobacco use and smoking cessation during pregnancy as one of its 21 specific objectives (Centers for Disease Control & Prevention & Healthy People 2010, 2005). Its aim is to increase the abstinence rates of cigarette smoke among pregnant women by 99% (Centers for Disease Control & Prevention & Healthy People 2010, 2005). Other government initiatives such as increased cigarette prices, smoking educational campaigns, and laws that prohibit and limit smoking advertisements have led to a lower prevalence of smoking overall, but have not totally eradicated the problem (Colman & Joyce, 2003).

A review of the research literature was completed to develop an enhanced understanding of African American women's experience with smoking, quitting, and relapse. The literature review demonstrates the magnitude of the smoking health disparity and racial comparisons between pregnant and post-partum, African American and Caucasian women. The comparison demonstrates that African American women have a higher disparity from smoke-related illnesses and birthing outcomes than their Caucasian counterparts.

To address this issue, the research question for this thesis is: *What are the quitting experiences of African American mothers' pre-and post- partum?* Three learning objectives include: 1) to assess and examine the quitting methods of African American women; 2) to determine how the women define quitting; and, 3) to assess the cessation needs of African American mothers.

# 2.0 THE LITERATURE REVIEW

## 2.1 SMOKING PREVALENCE

Generally, Native American/Alaskan Native women experience the highest prevalence of smoking at 30.1% (Shavers et al., 2006). Native American women were ensued by white (22.9%), African American (17.7%), Hispanics 12.5%, and Asian Americans/ Pacific Islanders (8.3%) (Shavers et al., 2006). Though research indicates a gradual decline in the overall prevalence of smoking and smoking during pregnancy over the past decade, more work is necessary for further reduction (Beato, 2003; Centers for Disease Control & Prevention, 2004, 2005; Colman & Joyce, 2003; Ebrahim et al., 2000) . Between the decade of 1990-2000, smoking prevalence among adults only declined by 2% (down from 25% to 23%), and slightly declined from 12.2% to 12% for pregnant women between the years 2000-2001(Beato, 2003).

The Behavioral Risk Factor Surveillance System (BRFSS) survey for the years 1987-1996 was conducted with 187,302 women (8,803 of the sample were pregnant), between the child bearing ages of 18-44 from 33 states (Ebrahim et al., 2000). The results showed that the overall smoking initiation rate for both groups of women (pregnant and non-pregnant) has dropped from 44.1% to 38.2% between the years of 1987-1996. The prevalence of current smoking for pregnant women has also decreased by almost 5% (from 16.3%-11.8%) (Ebrahim et al., 2000). However, the study's results further report the reduction in smoking prevalence

among pregnant women is a result of the overall lessening in smoking initiation of women in general. The decline is not, in fact, due to the augmentation of smoking cessation related to pregnancy (Ebrahim et al., 2000) .

Although there has been a national decrease in general smoking initiation and prevalence; recent smoking trends in the state of Pennsylvania indicate an increase in the number of current smokers. The number of cigarette smokers in Pennsylvania has increased from 23.7% in 1990 to 24.5% in 2002 (Centers for Disease Control & Prevention, 2003). A reduction to 23.6% was observed for the adult population of current smokers (National Center for Chronic Disease Prevention & Health Promotion, 2005). Racially, minorities face the highest rates of smoke – related disparities. In Pennsylvania, African Americans tend to have a higher smoking prevalence of 30.8% compared to 22.4% rate for Caucasians (National Center for Chronic Disease Prevention & Health Promotion, 2005).

## 2.2 PREDICTIVE FACTORS OF MATERNAL SMOKING

Research indicates a number of predictive factors that are common characteristics among maternal smokers: low socioeconomic status (SES), low maternal education, nicotine dependence, mental illness and depression (Abrahamsson & Ejlertsson, 2000; Avery & Stallings, 2003; Carmichael & Ahluwalia, 2000; Colman & Joyce, 2003; Ebrahim et al., 2000; Floyd et al., 1993; Jesse et al., 2006; Keeping et al., 1989; Pickett et al., 2005; Ward et al., 2006). Each of these factors further complicates the issue among this population.

Low SES has been linked to a host of public health problems, including tobacco use. Women with lower incomes report higher smoking rates during gestation compared to women with higher income levels (Ward et al., 2006). In fact, a linear correlation exists between increased smoking and deprivation variables such as housing, social class, martial and employment status (Ward et al., 2006). Research shows that women with a low SES are more likely to initiate and continue smoking and were most apt to smoke more frequently before, during, and after pregnancy (Greaves et al., 2006; Najman, 1998). It appears that low-income women on medical assistance also have an increased likelihood to smoke during pregnancy. Those who receive Medicaid have an estimated 50% greater smoking prevalence than the overall U.S. population (Meinert et al., 2005). More than 70% of Maternal Health Care providers surveyed throughout Pennsylvania stated that half of the pregnant patients enrolled in their Medicaid program were smokers (Meinert et al., 2005).

Low SES not only increases the likelihood to smoke, but is also associated with how some women make maternal health and tobacco use decisions (Meara, 2001). Variance in health behaviors by SES are modestly affected by differences in knowledge. Women also respond differently to common knowledge based on SES (Meara, 2001). Such information suggests, that

maternal smokers' lack of education as well as low SES, may affect their comprehension and conceptualization of the tobacco smoke educational messages they receive.

Women with higher educational levels are more likely to quit smoking during pregnancy compared to women with lower education (Abrahamsson & Ejlertsson, 2000; Avery & Stallings, 2003; Case & Paxson, 2006; Colman & Joyce, 2003; Ebrahim et al., 2000). Results from one study proved that 78% of pregnant women without a high school degree refrained from smoking during pregnancy, compared to 83% of those who were high school graduates and 94% of those with some college education (Case & Paxson, 2006).

Generally, nicotine dependence (duration of smoking behaviors + age) decreases the likelihood of pregnant smokers to quit. The longer a woman has engaged in smoking behaviors and the older she is when she conceives, the harder it is for her to quit smoking during her pregnancy (Avery & Stallings, 2003; Ward et al., 2006). Women who are lighter smokers are more likely to quit than heavier smokers; each case depends upon the level of cigarette addiction (Colman & Joyce, 2003; Ward et al., 2006).

Smoking and mental illness have a complex causal relationship (Health Policy Unit, 2001). Women who are at high risk to continue smoking were also at a greater risk for developing depression, anxiety, and increased rates of suicidal ideation. Specifically, these women demonstrate a two to four times higher risk of committing smoking-dose related suicide attempts and completion than non-smokers (Borrelli et al., 1996; Health Policy Unit, 2001). Smoking is concurrent with depressive symptoms among maternal smokers as well (Kahn et al., 2002). Depression has been associated with a failure in quit attempts and with smoking cessation treatments (Borrelli et al., 1996). Depressive symptoms can also exist independently of changes in smoking status (Kahn et al., 2002). Some women continue to smoking during pregnancy to

cope with stress and depression despite the known health risks involved (Floyd et al., 1993). A strong causal association exists not only between smoking and lung cancer, but also between depression and lung cancer (Abrahamsson & Ejlertsson, 2000).

Many studies identified the predictive factors for maternal smoking, and some researchers found associations among some of these factors. For example, studies indicate additional behavioral problems other than mental illness are associated with maternal smoking such as: physical, drug, and alcohol abuse (Abrahamsson & Ejlertsson, 2000; Jesse et al., 2006). Women that were physically abused have an increased likelihood to use smoking and substance abuse as coping mechanisms (Jesse et al., 2006). Additionally, a correlation has been shown between smoking and alcohol use during pregnancy as well as among women who reported both smoking and substance abuse (Jesse et al., 2006).

## 2.3 SMOKING DISPARITY IN PITTSBURGH

In 1990, 69.5% of births in Pittsburgh occurred among mothers who smoked (Census, 2000). By 2000, the percentage of births among mothers who smoked had decreased to 53.6% (Census, 2000). Additionally, the 2000 U.S. Census data show another drop in Pittsburgh's maternal smoking rate from 31.9% in 1990 to 23.2% in 2000 (Census, 2000). Pittsburgh's maternal smoking rate disparately exceeds the state and national average. Pittsburgh's maternal smoking rate in 2002 was 22.7 % compared to the state of Pennsylvania at 15.8% and the national average at 12% (Buchanan, 2006).

In addition to having high maternal smoke rates, African American females in Allegheny County (inclusive of Pittsburgh) continue to have higher mortality rates from smoke-associated chronic diseases compared to the rest of Pennsylvania (Census, 2000; Sims et al., 2002). For example, lung cancer death rates among African American females in the Allegheny County were 2.1 times the rate for the US and 1.6 times the rate in Pennsylvania (Sims et al., 2002). Between the years 1994-1998, African American women ages 35-44 in Allegheny County had a 1.5 times higher death rate for heart disease then for the US and 1.3 times the rate in Pennsylvania. Furthermore, the death rate for stroke among African American females in the county was 2.2 times the rate in the US and 1.3 times the rate in Pennsylvania(Sims et al., 2002).

Although Caucasian women of low socioeconomic status (SES) smoke more during pregnancy than their African American counterparts, African American women experience a higher disparity in smoke-related birth outcomes (Chang et al., 2003; Ebrahim et al., 2000; Jesse et al., 2006; Keeping et al., 1989). African American women had nearly twice the infant mortality rate (2.3%) compared to Caucasian women (1.3%) (Chang et al., 2003). Birth outcome

disparities can also be noted in Pittsburgh as well. General low birth weights of less than 2,500 grams for both races increased from 1980-2000 (Census, 2000). The percent of total low birth weight was 4.1% for Caucasians and 5.2% for African Americans in 1980. In 2000, the percent total increased for both races, but more for African Americans than Caucasians. There was only a .03% increase to 4.4% for Caucasians but for African Americans it was a .06% increase to 5.8% (Census, 2000).

Furthermore, a *Pittsburgh Post Gazette* newspaper article (2006) states 3.07 African American infants per 1,000 births died from sudden death syndrome (SIDS), compared to 0.20 per 1,000 live births for Caucasian infants in 2002 (Buchanan, 2006). One year later, the SIDS death rates were 1.97 for African American infants and 0.10 for Caucasian infants (Buchanan, 2006). This suggests a relationship between SIDS and smoking, and provides more evidence for the need to reduce the maternal smoking disparity as a public health priority in Pittsburgh.

## 2.4 SMOKING AND RACISM

Higher rates of smoking relapse, as well as poor overall health and birth outcomes are a few of the minority health disparities, which are part of the broader scope of social inequality and discrimination. Racism is associated with adverse health effects for African American women, causing its victims to experience psychological distress, and health problems (Kwate et al., 2003). Kwate et al. (2003) conducted a cross-sectional study in which self-reported accounts of racism among smokers and drinkers were positively correlated with higher cigarette and alcohol consumption. The women of this study increased their engagement in poor health behaviors as a way to alleviate stress due to lack of cultural identity and the internalized racism that was caused by frequent racist events, oppression, and discrimination (Kwate et al., 2003).

Additionally, social stress and poor community structure are linked to racial segregation, high crime rates in minority neighborhoods, impoverished areas of low employment, and areas where residents generally have low educational levels. Such environmental stressors strongly contribute to the concept of "life stress," which is a common theme with African American maternal smokers (Pletsch et al., 2003). Pletsch et al. (2003) conducted interviews with 15 African American maternal smokers. The women indicated disruptive home environments, parenting challenges, isolation, violent neighborhoods, lack of financial resources, and minimal social support as life stressors; the predictive factors of maternal smoking section of this paper (2.1.2) identified some of these situations. With regard to home conditions, the women either lived alone or in large multifamily households in which they lacked control over visitors and activities that occurred in the home. Other women expressed the high level of violence in their neighborhoods as a source of stress. The women indicated certain health problems - diabetes, heart ailments, asthma, and chronic coughs - worsened or were caused as a result of their

smoking but were not related to pregnancy (Pletsch et al., 2003). This study was one of few studies found on such topic relevant to African American maternal smokers.

## 2.5 SMOKING TENDENCIES

African American and Caucasian adult smokers of both genders exhibit differences in smoking patterns. One difference occurs with smoking initiation; African Americans engage in smoking initiation later in life than Caucasians (Randall, 2004; Royce et al., 1995). African Americans are: 1) generally considered lighter smokers (<10 cig/ day); 2) more likely to find smoking socially unacceptable especially during pregnancy; and 3) are more likely to have a stronger motivation to quit smoking (Hoffman et al., 1989; Office on Women's Health 2001; Pletsch et al., 2003; Randall, 2004; Royce et al., 1995). Despite higher motivation to quit, African Americans have a higher level of nicotine dependency than whites; this may be due to their cigarette preference (Randall, 2004). African Americans disproportionately smoke mentholated cigarettes at rates of 80% compared to 25% of Caucasian smokers (Randall, 2004). A mentholated cigarette contains menthol, a naturally occurring alcohol, as well as high concentrations of nicotine and tar (Randall, 2004). The use of menthol in cigarettes increases health risks and may be in part why African Americans disproportionately suffer higher morbidity and mortality from cigarette smoke- related illnesses.

## 2.6 SMOKING CESSATION

The percentages reported by various studies, for the post-partum relapse rates of women range from 46%-75%. Most studies claim 50% of women relapse into smoking six months to one year after delivery (Beato, 2003; Ebrahim et al., 2000; Kahn et al., 2002; Ruggiero et al., 2000). With regard to race, African American women tend to show a greater decline in smoking prevalence during pregnancy than Caucasian women, but a higher relapse rate post- partum (Office on Women's Health 2001; Ward et al., 2006). With in at least 3 weeks post-partum, 46% of pregnant African American smokers have been shown to relapse into smoking compared to 28% of pregnant Caucasian women (Ward et al., 2006).

Interestingly, differences exist in the socio demographic characteristics that affect pregnancy outcomes and smoking between Caucasian and African American women. For example, household income, educational level, intention to breast-feed was lower in African American women and higher among Caucasian women. The number of previous pregnancies and births were higher among African American women and lower among Caucasian women. These socio demographic characteristics have been shown to be a reliable predictor of successful quit attempts (Ward et al., 2006).

Stress and lack of social support was found to increase the likelihood for continued smoking and relapse among African Americans (Jesse et al., 2006; Ward et al., 2006). African American women who have increased levels of social support also have more success in quitting and preventing relapse (Jesse et al., 2006). Yet partner and social support do not serve as protective factors against smoking during pregnancy for Caucasian women (Jesse et al., 2006). On the contrary, Hymowitz et al. (2003) found the factors that influence smoking relapse are the same for both African American women and the general population. They suggest that the

variance lies in the degree of these influential factors that exacerbate smoking relapse post partum, rather than the kind of factors (Hymowitz et al., 2003).

## 2.7 SMOKING CESSATION CLASSIFICATIONS AND RELAPSE PATTERNS

Pregnant women who quit smoking are classified into three groups: 1) pregnancy quitters; 2) spontaneous quitters; and, 3) pregnant smokers (DiClemente et al., 2000). Pregnancy quitters are those who quit because they plan on becoming pregnant. Little is known about this group because they quit before pregnancy and in theory remain quitters during and after their pregnancy (DiClemente et al., 2000). Spontaneous quitters are those who quit immediately after discovering their pregnancy status. Spontaneous quitters have high cessation rates ranging from 80-85% during pregnancy. However, they also have very high relapse rates of 70% post partum (DiClemente et al., 2000). Spontaneous quitters tend to be more concerned about protecting the health of the developing fetus and relapse more frequently because due to their either being unaware of or disregard the health hazards of second hand smoke exposure on their children. Pregnant smokers smoke throughout their pregnancy. They are more likely to have the common predictive factors as previously identified (e.g., low SES, psychosocial problems, addiction) (DiClemente et al., 2000).

Most women who relapse post partum are in the pre-contemplation stage of the Stages of Change Model (Fang et al., 2004). Those who relapsed were identified as women who quit late in their pregnancy and those who were heavier smokers before pregnancy (Fang et al., 2004). Edwards and Sim-Jones (as cited in Fang et al., 2004) conducted in-depth interviews with 22 women who relapsed post partum and three themes emerged: 1) the women used their pregnancy as a reason to quit smoking; 2) specific stressful or traumatic life events, social pressures, no longer being pregnant, or high-risk conditions prompted their relapse into smoking and; 3) social influences affected smoking behavior. Women with non-smoking partners were more likely to quit than women with smoking partners (Fang et al., 2004; Ward et al., 2006).

## 2.8 QUITTING AND RESUME SMOKING

Women vary on the perceived risks, level of harm, and the consequences that smoking presents for the mother and child (Abrahamsson & Ejlertsson, 2000). Women also face varying degrees of societal pressures and factors that affect their ability to quit and maintain cessation (Abrahamsson & Ejlertsson, 2000). In an indepth interview and survey study conducted with 337 women during their pregnancies and post-partum, three critical points for behavioral change in smoking habits were discovered (Abrahamsson & Ejlertsson, 2000). The majority of women either decreased or quit smoking when they: 1) learned they were pregnant; 2) first visited the prenatal clinic; and, 3) after they gave birth (Abrahamsson & Ejlertsson, 2000). Obstetricians, midwives, and health professionals play key roles in helping pregnant women quit smoking.

Although pregnancy provides a valid reason to quit smoking, one study disagrees with the sole reliance on the baby's health as a motivation to quit smoking. Melvin et al. (2004) argue against quitting only for the sake of the baby because the pregnant quitter does not develop the motivation and coping skills that will sustain smoking abstinence beyond the birth of the baby (Melvin & Gaffney, 2004). Thus, post-partum relapse and the intention to resume smoking both increase. In a multivariate analysis study of 301 former maternal smokers, 262 (87%) of the women intended to abstain from smoking while 39 (13%) of women intended to resume smoking postpartum (IRS) (Roske et al., 2006). Those who intended to resume smoking were four times more likely to smoke post-partum compared to those who intended to abstain from smoking (Roske et al., 2006).

## 2.9 THE EFFECTS OF ENACTED TOBACCO POLICIES

Many developed countries have experienced great success over the past 40 years in reducing the rates of tobacco use among it citizens. Such success is partially due to the comprehensive tobacco policy approaches such as cigarette taxation, restrictions on smoking locations, sales prohibitions to minors, and limitations on tobacco sponsorships and advertisements (Greaves et al., 2006). Health promotion and social marketing campaigns on smoking prevention and cessation often supplement this comprehensive approach (Greaves & Jategaonkar, 2006). Workplace smoking restrictions and bans have been associated with the reduction in daily cigarette smoking among the most populated segments (Shavers et al., 2006). Workplace bans and restrictions have also been linked to higher cessation rates and the overall reduction in the prevalence of current smoking (Shavers et al., 2006).

Several U.S. states, including Pennsylvania, passed the Clean Indoor Air Act of 1988 to control smoking in public places, meetings and workplaces (Clean Air Council, 2006). Section 10.1 of the Act prohibits smoking in all indoor places frequently used by the general public (e.g., museums, libraries, health and educational facilities, and some workplaces) with the exception of bars and restaurants, lobbies, privately-owned clubs, and hotels/motels (Clean Air Council, 2006). Restaurants of a certain square footage are required to have a non-smoking section which prohibits smoking. Such restaurants are also required to regulate smoking activity (Clean Air Council, 2006).

On September 25, 2006, by a 14-1 vote, Allegheny County City Council officials passed a smoking ban ordinance “which prohibits smoking in all workplaces, including bars and restaurants [pool halls and bowling alleys]… [The ban also prohibits] smoking within 15 feet of any building entrance or exit”(WPXI, 2006 a). Since the passing of this bill, many amendments

have been made and have been heavily debated. The smoking ban was scheduled to go into effect January 2, 2007, until a judge ordered a temporary injunction against it on December 22, 2006 (WPXI, 2006 b). The injunction was intended to be lifted after a scheduled hearing in April 2007 was held (WPXI, 2006 b). The ban has faced a lot of opposition from local bars and restaurants and has yet to be passed in Pittsburgh (WPXI, 2006 a, 2006 b). When finally enforced, the smoking ban has the potential to directly benefit the health of pregnant smokers and nonsmokers alike. The ban can have positive direct effects on pregnant and post partum smokers by providing a smoke-free environment and helping such smokers to cease smoking in public settings. This ban can be a landmark stride toward reducing the high smoking prevalence rates among pregnant and non-pregnant women in Pittsburgh.

In 2004, the National Cancer Institute (NCI) and the American Legacy Foundation (ALF) launched the Tobacco Research Network on Health Disparities [TReND] which lead to the very first U.S. initiative to ascertain the impact of tobacco control policies on low SES women and young females (McLellan & Kaufman, 2006). The NCI and ALF through the TReND initiative convened a national meeting of health experts on September 22-23, 2005 in Bethesda, Maryland. Numerous agencies within the US Department of Health and Human Services and the American Legacy Foundation supported this initiative. At the conference, a discussion was led that identified the gaps in research and priority areas for further investigation on the effects of tobacco control polices on low SES girls and women. Research papers were also presented at the meeting and developed as a result of the summit.

## 2.10 HEALTH PROFESSIONALS' ROLE IN SMOKING CESSATION

Little success has been shown in relapse prevention programs for post- partum maternal smokers (Walsh et al., 2001). This may be partially due to poor execution of services by health professionals who facilitate these programs. Health care providers have the potential to deliver smoking cessation services and information that can be key motivators for women attempting to quit (Meinert et al., 2005). However, health professionals often lack the training, resources, and time to effectively interact with pregnant smokers (Strecher et al., 2000). Antenatal health care providers need to take a more active role in helping post partum women to quit; as 90% of antenatal care providers do not provide written information and advice about smoking cessation to pregnant women (Health Policy Unit, 2001). In a National Committee on Quality Assurance (NCQA) study, 27% of pregnant smokers on medical assistance reported that they were not informed about the health risks of smoking nor were they provided with information on how to quit smoking (Meinert et al., 2005). More than 95% of maternal smokers in the 1997-2001 Pregnancy Risk Assessment Monitoring System [PRAMS] survey stated they did not receive any smoking cessation classes during their pregnancies (Avery & Stallings, 2003).

Despite sound and effective intervention strategies, some health professionals and organizations face barriers that prohibit successful implementation of smoking cessation interventions for pregnant and post-partum smokers (Barker et al., 2000). Medical directors in a cross-sectional fax and telephone follow-up survey identified several common barriers to successful smoking cessation intervention: 1) lack of interest by program participants; 2) lack of a smoker identification system; and 3) clinical priorities that often compete with each other for immediate attention (Barker et al., 2000).

## 2.11 PHARMACEUTICAL TREATMENT OPTIONS

Pharmacotherapy is one method to treat nicotine dependence. Such treatment is available as first or second-line Nicotine Replacement therapies (Fiore et al., 2000). The most popular first-line Nicotine Replacement Therapies (NRT) that have proven to be effective in long-term quit efforts are: 1) Zyban (bupropin hydrochloride SR); 2) nicotine gum; 3) nicotine inhaler; 4) nicotine nasal spray; and, 5) the nicotine patch (Fiore et al., 2000). Clonidine and Nortriptyline are stronger second-line pharmacotherapies used when first-line therapies prove ineffective (Fiore et al., 2000). All NRTs are intended to be used on the day that the person quits smoking to help the person maintain permanent smoking cessation (Fiore et al., 2000).

In May 2006, the U.S. Food and Drug Administration (FDA) approved a new drug in tablet-form Chantix (varenicline tartrate), that assists adult smokers with quitting (U.S. Food and Drug Administration, 2006) . Chantix works in the nicotine-affected parts of the brain by providing some effects of nicotine to ease withdrawal symptoms and by blocking the nicotine effects from cigarettes if the person relapses into smoking. Six clinical trials have shown Chantix to be more effective than Zyban for smoking cessation (U.S. Food and Drug Administration, 2006).

Although some of these pharmacological treatments may be effective in the general population of smokers, controversial concerns exist about the drug effects on the fetus in pregnant smokers. For example, Clonidine has not been tested in pregnant humans, but it has been shown to harm animal fetuses in laboratory tests (Medline, 2004). Patients taking Nortriptyline are advised to immediately consult their doctor should they become pregnant, as it may be harmful to the fetus (Medline, 2005). NRT efficacy in pregnancy has not been established; as a result, such treatments should only be used in those who consume more than 10

cigarettes daily and have relapsed into smoking after an unsuccessful attempt to quit (Walsh et al., 2001). One study concludes that NRT use during pregnancy is less threatening to the fetus than continued maternal smoking (Melvin & Gaffney, 2004).

## 2.12 APPLICABLE THEORIES

The Stages of Change (aka. Transtheoretical Model [TTM]) was developed in the 1980's by J. Prochaska and C. Diclemente (The Change Zone, 2004). TTM is a theoretical behavioral change model that have been used for general smoking cessation interventions and programs geared specifically toward pregnant women (Emmons et al., 2000; Neff- Smith, 2001; Ruggiero et al., 2000). Two major dimensions of the TTM model are: 1) the temporal stages of change dimension (pre-contemplation, contemplation, preparation, action, and maintenance; and 2) the experiential process of change dimension (consciousness raising, counter-conditioning, dramatic relief, environmental re-evaluation, helping relationships, reinforcement management, self-liberation, self-evaluation, social liberation and stimulus control (Cancer Prevention Research Center, 2004). Additionally, the decisional balance and self- efficacy constructs can serve as intervening variables and bench markers for intervention effectiveness. These constructs are effective tools for comprehension and creation of successful interventions for various smoking groups particularly for low-income women (Fang et al., 2004; Ruggiero et al., 2000).

An example of an intervention that used the TTM is the Healthy Baby Second-Hand Smoke study, which was developed by a group of public health nurses (Emmons et al., 2000). This study was a pilot outreach program designed for high-risk pregnant smokers. The motivational interviewing tool was a component of their intervention. Poor execution by program staff as well as client mobility, attrition and participant tracking challenges, caused the motivational interviewing tool to be ineffective in raising the smoking cessation rates among the sample population who received the intervention (Emmons et al., 2000).

Constructs from another behavioral change theory, the Transactional Model of Stress and Coping (TMSC) are relevant to pregnant and post partum smokers as research suggests that

some women use smoking as a coping mechanism for stressful and adverse life situations (Abrahamsson & Ejlertsson, 2000; Ebrahim et al., 2000; Jesse et al., 2006). TMSC specifically addresses issues of stress, coping and social support by providing a framework for the evaluation process of coping with stressful experiences and construing stressful events as person-environment transactions (Lerman & Glanz, 1999). TMSC also provides an accurate assessment of the way individuals synthesize certain behaviors, problems, and stressors by encompassing perceptions related to threats, risk and personal capabilities (Lerman & Glanz, 1999). These perceptions determine how an individual deals with particular situations. Moreover, TMSC has TMSC has also been tested as a cognitive and social learning model for drug and tobacco dependence among youth as well as a guide for novel assessment instruments (Brandon et al., 2004). This model was developed between the 1960's and 70's and consists of: primary and secondary appraisal of stressors, coping efforts, meaning-based coping, outcomes of coping and dispositional coping style contextual components (University of Twente, 2004 b). TMSC contains constructs similar those in TTM such as: 1) self efficacy; 2) social support which serves as moderating construct; and 3) coping efforts which is comparable to the TTM self-evaluation construct (Lerman & Glanz, 1999).

The third behavioral change theory relevant to this population is the Social Cognitive Theory (SCT). SCT was originally developed in 1941 by Miller and Dollard. This theory has been used to help explain how people gain and continue certain behavioral patterns. It also provides basic ideas for intervention strategies (University of Twente, 2004 a). SCT consists of the following constructs: environment; behavioral capability; expectations; expectancies; self-control; reinforcements; and reciprocal determinism. This theoretical model undergone some additional changes over the years as the social learning construct was added in 1963 and the self-

efficacy construct was added in 1977 (University of Twente, 2004 a). The author of this thesis did not find any studies on interventions using any of these theories geared specifically toward the study population.

## 2.13 CESSATION PROGRAMS

Certain types of smoking cessation programs have been shown to be more effective than others in increasing smoking cessation among African American women. These interventions include: 1) culturally tailored self-help materials accompanied with physician counseling; and 2) church-based cessation programs that incorporate one-on-one counseling and community wide activities (Gallogly, 2004). However, Pederson et al. (2000) provide a contradictory account of effective interventions for African American women. In their examination of cessation programs and African American women's self-quit behaviors, church-based programs appeared to provide a positive location for cessation interventions, but did not demonstrate unequivocal effectiveness. Additionally, the researchers failed to find any clinical programs that were successful with this population. Analysis showed that community-based interventions were just as effective in African Americans as in Caucasians (Pederson et al., 2000).

In a study conducted between years 1993 to 1994, with 160 African American male and female smoking clients at a community health center; the sample population was divided into three randomized intervention groups: 1) health care provider intervention only; 2) health care provider intervention with tailored print materials; and, 3) health care provider intervention, tailored print materials and tailored telephone counseling (Lipkus et al., 1999). Overall, thirty-five out of 160 participants (21.8%) reported smoking cessation at follow-up. The health care provider intervention with tailored print materials (second intervention group) was the most successful at 32.7%, followed by the third intervention group at 19.2% and the first intervention at 13.2% (Lipkus et al., 1999).

Multi-component interventions such as Sister to Sister use NRTs, nurse-delivered counseling, and personal contact from community health workers. The Sister to Sister program

was developed by Jeannette Olson Andrews, from the Medical College of Georgia. It is a community partnered smoking cessation program that serves African American women in 20 public housing projects in the Augusta and Richmond County parts of Georgia (Andrews, 2004). These interventions focus on enhancing social support, developing smoking cessation self-efficacy, and creating spiritual well-being. Such interventions have been successful at increasing smoking cessation by 27.5% compared to other groups at 5.7% that only used self-help print materials (Andrews et al., 2007). Though formal treatments including cessation programs have proven to be effective, very few African American former smokers and contemplation stage current smokers rely on formal treatments to abstain from smoking. More former smokers than current smokers reported the use of willpower to help them successfully quit, instead of cessation programs (Orleans et al., 1989).

## 2.14 POSSIBLE CHALLENGES WITH RESEARCH

Limitations in conducting research are ever present; methodology can often be a contributing factor to such challenges. One possible challenge with the methodology of some studies is measuring quit rates based on self- reported data. Misreporting bias from self-reports is possible and can skew the validity of actual quit rates reported by pregnant and post-partum smokers (Lawrence et al., 2003). To address this limitation, some studies measured and matched cotinine levels in the maternal saliva and compared the results with self-reports of cigarette smoking to increase the accuracy of the data obtained (Lawrence et al., 2003; Pickett et al., 2005; Pletsch et al., 2003). One study that compared cotinine levels with self reports of quitting found that the pregnant smokers' intake of toxins did not change throughout pregnancy, despite claims of lower cigarette consumption (Lawrence et al., 2003).

In addition to measurement challenges of self-reported quit rates, there have been reported problems with measuring the effectiveness of cessation programs. Windsor et al. (1988) found that some instruments, measurements, evaluations, and interpretations of many intervention programs targeted toward pregnant smokers can individually and collectively threaten internal validity of results. For example, poor measurement of smoking status, patient selection biases, and incorrect calculation of quit rates were found to be major methodological weaknesses of most research conducted (Windsor et al., 1998). Out of 23 intervention studies among pregnant smokers who received prenatal care, less than half (11) of the studies were deemed of sound methodological quality to produce results of high internal validity (Windsor et al., 1998).

Along side methodological issues is the variance of results of some studies. For example the results of some studies differ on which racial group has the highest smoking rate and nicotine dependence. One source clearly states that African American women smoke significantly fewer cigarettes than Caucasian women (Jesse et al., 2006). Another source affirms that among the most recent observational studies, the non-disclosure rates of pregnancy smoking were higher among ethnic minorities (Pickett et al., 2005). With regard to addiction, one source claimed that Caucasian women have higher nicotine dependence, but another source argued that African American women have higher nicotine dependence to mentholated cigarettes (Randall, 2004; Ward et al., 2006). The author of this thesis finds variances in the results of some research studies a slight challenge for synthesizing and understanding the public health problem associated with pregnant and post partum smoking and quitting among African American women. These findings helped frame the author of this thesis work by demonstrating the magnitude of the research problem, indicating where some research gaps in understanding exist as well as the specific issues relevant to smoking among the target population (e.g. smoking relapse and quitting) that require further exploration.

## 2.15 COMPONENTS OF SUCCESSFUL INTERVENTIONS

Pre-and post-natal pregnancy periods are the most optimal time to intervene with smoking cessation education and programs. A woman's perceived motivation to quit for the sake of her child and the frequency of medical attention increases during pregnancy (Abrahamsson & Ejlertsson, 2000; Ebrahim et al., 2000; Kahn et al., 2002; Ruggiero et al., 2000). Therefore, more effort should be made to educate women, particularly women from high-risk smoking populations, about the dangers of prenatal smoking (Avery & Stallings, 2003). The five main comprehensive approaches to tobacco use reduction proven effective for comprehensive tobacco control programs are: 1) educational; 2) clinical; 3) regulatory; 4) economic; and, 5) comprehensive (Kelly et al., 2001). Intervention strategies to assist and encourage women to set up smoking restrictions in their own homes are also recommended. Moreover, smoking cessation education should provide information that emphasizes the hassles of smoking as a supplement to the educational materials (Ward et al., 2006).

Effective cessation programs should cohesively address the maternal smoker's needs and social networks, as well as incorporate its intervention and activities into routine health visits (Fang et al., 2004). Cessation programs should also simultaneously focus on addiction-related, attitudinal, and social-environmental barriers to quitting. To maximize effectiveness, programs and educational messages should be culturally tailored to the target population (Fang et al., 2004; Strecher et al., 2000). Print cessation materials should creatively be written at a lower-literacy level to cover a range of educational abilities within the target population (Fang et al., 2004) .

Messages should be straightforward, establish a tone of mutual concern, and contain language that is common to the target population. The message should further emphasize

concerns that are of immediate interest to the women; the messages should be empowering instead of degrading (Fang et al., 2004; Icard et al., 2003).

Successful post-partum relapse programs must include the participation and support of loved ones and close friends of the maternal smoker. One example of effective partner involvement and tailored messages is the Project PANDA Intervention which mailed newsletters, print materials, and videos to pregnant smokers and their partners in the last weeks of pregnancy and the first six weeks post delivery (DiClemente et al., 2000). The posted materials for the partners, while similar to those given to the pregnant smokers, were also tailored to include the male perspective on pregnancy (DiClemente et al., 2000). Such experimental implementation reaped positive outcomes, yielding a significant increase in abstinence rates over the entire follow-up period in the project participants (DiClemente et al., 2000).

Individual counseling is another effective smoking cessation intervention strategy. In 1990, the National Cancer Institute created four A-steps of smoking cessation counseling model which are: 1) Assessment of smoking status; 2) Advice to quit; 3) Assistance in staying quit; and, 4) Arrangement for a Follow-Up" (Fang et al., 2004). One decade later (in the year 2000), the U.S. Public Health service has developed the five A's guideline to assist smokers with quitting which are: Ask, Advise, Assess, Assist, and Arrange (Abatemarco et al., in press). These guidelines are similar to the National Cancer Institute's four A's model for smoking cessation counseling. The Assist and Arrange steps are crucial to effectively maintaining a quit state as well as preventing relapse; these final two steps must be done routinely in accordance with the first three steps of Ask, Advise, and Assess. Lastly, since stress and depression are linked to maternal smoking, stress management and coping with depression should be an important

component added to counseling interventions for smoking mothers (Jesse et al., 2006; Kahn et al., 2002).

## 2.16 GAPS IN RESEARCH

Research on this public health problem, requires further comprehensive information on smoking and relapse among women in general. Few studies exist on preventing smoking relapse (Fang et al., 2004). More research on relapse prevention and cessation is needed to sustain smoking abstinence during pregnancy and post-partum (Fang et al., 2004). Further exploration of the quitting trends during pregnancy; the resumption of smoking post partum; and the social context in which women make decisions about prenatal health behaviors is still needed (Colman & Joyce, 2003; Emmons et al., 2000; Fang et al., 2004; Pletsch et al., 2003). Additional research is needed to focus on what proportion of women who successfully quit on their own during pregnancy and the characteristics of these women (Ruggiero et al., 2000). In addition, more information is warranted for the short-term effects of smoking during pregnancy. The long term effects of smoking pre- and post- pregnancy on the mother and child are identified by research, but the short- term effects remain unknown (Abrahamsson & Ejlertsson, 2000). In addition, there is a gap in knowledge about the behavioral and social differences between quitters and continual smokers as well as the differences in birthing outcomes between the two (Avery & Stallings, 2003).

More research is needed to determine specific racial differences among pregnant smokers; such disability presents challenges for clarifying discrepancies that may exist between racial groups of pregnant smokers (Ward et al., 2006). Additionally, more studies need to examine the link between post- partum depression, the increased risk of continued smoking, and smoking relapse (Kahn et al., 2002). Furthermore, additional studies are needed to assess the quitting and relapse experiences of African American women and the high prevalence rates of maternal smoking in Pittsburgh, PA. More investigations are needed to determine if the region

has any predictive factors that are unique to Pittsburgh in comparison to national indicators for maternal smoking, or if these factors are the same as national predictive factors but intensified, and identify which factors are intensified and why. Little information is available on self-quitting, therefore research on the natural history of quitting, social norms for smoking among African American groups, and the conceptual dimensions of race in the context of this research are demanded (Pederson et al., 2000). In the methods section, the author of this thesis will discuss the design of a focus group study conducted to address a gap in the research literature.

# 3.0 METHODOLOGY

## 3.1 FOCUS GROUPS

Focus groups are an exploratory method of inquisition in which a small number of people participate in a structured group discussion (Moser et al., 2001). Participants are able to express their thoughts and opinions; this format is an effective way to obtain a variety of views among the participant groups (Moser et al., 2001). It is important to conduct focus groups with women of color because focus groups help researchers to understand the cultural implications to specific health behaviors and perceptions. Understanding the reasoning behind certain health behaviors and opinions can help researchers to create culturally sensitive interventions and educational materials for specific minority groups. For example, many focus groups have been conducted with African American women to understand their views on such issues as sexual communication and negotiation; opinions about health and social environment; and to understand their physical activity to name a few (Schulz & Lempert, 2004; Walcott- Mc Quigg, 2001; Wingood, 1993).

Two focus groups were conducted with African American post-partum smokers to examine quit methods, barriers to successful quitting, and the unmet needs for permanent cessation. This data collection methodology was also selected and deemed appropriate for this type of research because it provides a means of discovering the participants' responses to many

issues identified in the literature and allows for the emergence of new areas of inquiry (Freimuth et al., 2001).

A focus group guide and questions were developed and underwent several revisions before receiving final approval from the thesis committee that consisted of three faculty members from the Graduate School of Public and the School of Social Work at the University of Pittsburgh. An Institutional Review Board (IRB) protocol was submitted February 2007 and was approved March 2007(APPENDIX A). Both focus groups were moderated by the author of this thesis and a prospective medical student served as the note taker for both sessions. The prospective medical student was apprised of her roles and responsibilities before the focus group sessions were conducted. Each focus group was conducted a week apart to allow for the moderator to reflect on the dynamics and findings of the first session and to make revisions to the focus group guide for the second session.

## 3.2 SAMPLE POPULATION

The sample for this study consisted of African American women, between the child-bearing ages of 18-40 years old. The women were either a current or former smoker, had a child under the age of three years, and currently resided in Pittsburgh. The women had made at least one quit attempt during their pregnancy or during motherhood. The recruitment goal for this study was 20 participants, 10 women for each session. Of the 16 women who agreed to participate, 13 attended both focus group sessions. To recruit women for the study, the author partnered with the Director for Centers for Healthy Hearts and Souls (CHHS), a faith-based community initiative which provides smoking cessation support through group support and curriculum instruction. The Director contacted the women using multiple recruitment strategies and a purposive sampling scheme. Fifteen contacts via the telephone were made out of 100 referrals from Healthy Start Inc. - a national demonstration initiative designed to help reduce infant mortality, low birth weight births among low income families.

Secondly, the Director contacted community churches via telephone and asked church personnel for recommendations of members who met the criteria and might be interested in participating in the research study. Thirdly, the Director visited three community organizations: Hosanna House, Inc., Wilkinsburg Family Health, and North View Heights Citizen Council. The Director has an established rapport with and developed community outreach partnerships with these organizations. The Director also provided representatives of these organizations with an informational flyer produced by the author of this paper as well as her contact information for interested participants to contact her (APPENDIX B).

In addition, a snowball sampling scheme was used with a representative from the Terrance Village Housing Project in Pittsburgh's Hill District, who was involved in the CHHS

smoking cessation program. The representative served as a liaison between the Director of CHHS and prospective study participants. The representative was responsible for referring other women in her housing development whom she thought would be good candidates for the study. lastly, the representative assisted with the distribution of the informational flyer and provided additional information about the study, as needed. The CHHS Director then retrieved the names and contact information from those who expressed interest in the study and screened the women over the phone using the telephone script created by the author of this thesis (APPENDIX C) to determine the women's eligibility to be in the study. Eligible women were provided with the date and location of each focus group as well as the incentives for participation. The participants received a follow-up phone call the day before each session which served as a reminder and confirmation that the women would attend. Due to the particular IRB protocol and nature of this study, consent forms were not required nor obtained. The women were verbally debriefed about their risks for participation, confidentiality and their rights as study participants during their telephone conversation with the Director. The author of this thesis had no contact with the study participants prior to the focus group sessions.

## 3.3 DATA COLLECTION

### 3.3.1 Focus Groups

#### 3.3.1.1 The Setting

Two focus groups were conducted at the Centers for Healthy Hearts and Souls (CHHS), on two consecutive Fridays. The first focus group was conducted on April 17th from 12-2pm. The second focus group was conducted on April 27th from 6-8 pm. The focus group times were determined based on the convenience and availability of the participants, CHHS Director, and moderator (author of thesis). The sessions were conducted in a small conference room. The conference room had a large window which overlooked the parking lot, and a few framed pictures were hung along one side of the wall. On the opposite side of the wall, was a moveable wall which divided the conference room from the CHHS Director's office. The room was bright, well lit and was set at a comfortable room temperature. A large square table was positioned in the middle of the conference room. Chairs were positioned around table in a fashion that allowed the moderator to face the participants from all angles of the table. A flat, table microphone connected to the tape recorder was used. The microphone was placed in the middle of the table, so that the focus group discussion could be clearly audible during the audio recording. Another table aligned the back wall; this table was used for the refreshments. A small round table was situated on the left side of the entrance door into the conference room. The note taker used this table for note taking purposes and to manage the tape recorder.

Before each session, the focus group moderator (author of this thesis) arrived early at the study site to prepare for each session and test the audio equipment. At the beginning of each session, participants were greeted by the moderator and asked to complete a brief socio

demographics questionnaire. During this time participants were also given the opportunity to use the restroom, and eat the light refreshments provided before the start of the group discussion. Two hours was allotted for each focus group.

At the beginning of each discussion, the moderator followed the focus group guide introductory script to introduce herself, explain the study, and establish ground rules for the session. The moderator reviewed confidentiality considerations, informed the women about the audio taping of the session, and discussed the honorarium for participation. The women were also informed about the voluntary nature of the study. After the introductory script was read, the moderator proceeded to ask six questions relating to the following general areas (APPENDIXES E & F):

1) Smoking initiation;
2) Reasons for wanting to quit;
3) Quit experiences;
4) Quit methods used;
5) Unmet needs personally and in the community; and
6) Ideas for an effective smoking cessation program.

The audio taped discussion lastly for approximately one and one half hour. At the conclusion of the focus groups, the women were given a $20.00 gift card to Giant Eagle, a regional grocery store, and an additional monetary gift from the Director of CHHS. Once the women departed from the study site, the moderator, note taker and Director debriefed about the focus groups, noted interesting conversations that occurred, and exchanged reactions about each session. This debriefing was instrumental in synthesizing the information retrieved.

### 3.3.2 Socio Demographic Questionnaire

The questionnaire was placed on the table at each seat for the women to complete and return to the moderator before the focus group discussion began. The questionnaire contained five questions that requested socio demographic information such as: age, race, educational level, income and zip code. (APPENDIX D and Section 4.1.1) These variables were selected because they serve as common predictive factors for smoking (Abrahamsson & Ejlertsson, 2000; Avery & Stallings, 2003; Carmichael & Ahluwalia, 2000; Colman & Joyce, 2003; Ebrahim et al., 2000; Floyd et al., 1993; Jesse et al., 2006; Keeping et al., 1989; Meara, 2001; Pickett et al., 2005; Ward et al., 2006). The questionnaire was instrumental in determining whether or not the participants fit the socio demographic characteristics as defined by previous research. For example, previous research has identified low income status as a predictive factor for smoking (Greaves et al., 2006; Najman, 1998; Ward et al., 2006).

## 3.4 DATA ANALYSIS

Both focus group sessions were audio tape recorded and transcribed verbatim. A professional transcriber for The University of Pittsburgh, Center for Minority Health transcribed the tapes. Transcription-based analysis was conducted and considered the best form of focus group analysis because it is the most time-intensive and requires the most rigor (Curtis & Redmond, 2007). In addition to the focus group transcripts, the typed notes generated by the note taker and issues raised during the debriefing sessions were also included in the analysis (Curtis & Redmond, 2007).

In addition, the author of this thesis created a coding manual to help facilitate the coding of the transcripts. Each code was labeled closest to the concept that it described (Krueger & Casey, 2000). Reflective remarks clustering some of the pieces of data together for conceptualization were written on the margins of the transcripts, on the opposite ends of the codes (Krueger & Casey, 2000). A comparison chart was also made between the two focus groups and organized based on the questions asked and topical categories. Results from the questionnaire were also analyzed and organized into a chart. After the coding of transcripts was completed and the codes were analyzed, they were further interpreted and organized into themes. The themes for this study were developed based on the frequency and extensiveness of the coded comments that appeared in the transcripts (Krueger & Casey, 2000).

# 4.0 RESULTS/FINDINGS

## 4.1 THE PARTICIPANTS

Thirteen African American women ranging from ages 18-48 years attended both focus groups. Women in the first focus group were between the ages of 23-27. In the second focus group, the women were between the ages of 18-22. The highest level of education obtained from this sample was some college; most had a high school diploma. Some college was defined as taking some college level courses, but has not obtained a baccalaureate degree. With regard to income, most participants earned less than $9,999 per year. During the focus group sessions all participants identified themselves as current smokers. Seven different zip code areas in the city of Pittsburgh were represented among the sample population. Zip code data can be gathered to collect vital statistics on populations in geographical areas where specific health disparities exist (Geisz, 2007). For example, the National Minority Health Month Foundation retrieved zip code data and stored it in their minority health status database to analyze cardiovascular and heart disease as well as to compare health outcomes between minority and non-minority zip codes (Geisz, 2007).

Additionally, the Center for Minority Health (CMH), located in the University of Pittsburgh's Graduate School of Public Health addresses racial and ethnic minority health issues and used zip code data to establish the Health Empowerment Zone (HEZ) in the city of

Pittsburgh for its Healthy Black Family Project (HBFP) (Aldinger, 2004). The HBFP is the flagship project of the CMH that conducts a series of interventions focused primarily on Type 2 diabetes and hypertension prevention (Aldinger, 2004). Zip codes 15214 and 15219 had the most representation by the sample population (3 women each). Zip code area 15214 embodies some parts of the North side, Lebanon, Upper St. Clair, and parts of Ross Township. This zip code area also has an increased Caucasian population of 9,562 compared to 7,468 for African Americans. In 1999, 23.9% of individuals in the 15214 zip code area were living below the poverty level (City-Data.com, 2007). With regard to criminal activity, the total crime index in this zip code area more than double the national average at 6.7 compared to 3.60 (Yahoo! Real Estate, 2007).

The 15219 zip code represents the Uptown section Pittsburgh such as the Hill District, Crawford Roberts, Bedford Dwellings and Terrance Village. The African American population (12,335) in this zip code area nearly doubles the Caucasian population (6,149) (City-Data.com, 2007). In 1999, 40.9% of residents in this zip code area were living below the poverty level; which is higher than the Pennsylvania state percentage of 11% (City-Data.com, 2007). The total crime index in this zip code nearly doubles the national average at 6.30 compared to 3.60 (Yahoo! Real Estate, 2007). The zip codes represented by the sample population (all were in the second focus group) are part of the HBFP/HEZ. Interestingly, these areas also have smoke-related health disparities in cancer and heart disease (Center for Minority Health, n.d.). Overall, most of these zip codes (four out of seven) represent predominantly African American neighborhoods in the city of Pittsburgh that suffer from a variety of social ills including unemployment, racial health disparities, higher crime rates and lower income levels (City-Data.com, 2007). Below is a chart that describes the demographics of the focus group

participants, following a chart of the zip code areas and neighborhoods represented by the sample population. To view a map of the HBFP/HEZ see APPENDIX G.

**Table 1: Focus Group Demographics**

| Variable | Focus Group 1 ( n=5) | % | Focus Group 2 ( n=8) | % |
|---|---|---|---|---|
| Age Group | | | | |
| 18-22 | 0 | 0 | 4 | 50 |
| 23-27 | 3 | 60 | 1 | 12.5 |
| 28-32 | 2 | 40 | 2 | 25 |
| >41 | 0 | 0 | 1 | 12.5 |
| Mean Age | 27 | | 26.75 | |
| Median | 27 | | 23 | |
| Education | | | | |
| Less than high school | 0 | 0 | 0 | 0 |
| High school | 1 | 20 | 2 | 25 |
| High school diploma/GED | 2 | 40 | 6 | 75 |
| Some college | 2 | 40 | 0 | 0 |
| Income Range | | | | |
| $0-9,999 | 3 | 60 | 3 | 37.5 |
| $10,000-29,999 | 2 | 40 | 3 | 37.5 |
| No Answer | 0 | 0 | 2 | 25 |
| Zip code | | | | |
| 15214 | 3 | 60 | 0 | 0 |
| 15216 | 1 | 20 | 0 | 0 |
| 15210 | 1 | 20 | 0 | 0 |
| 15219 | 0 | 0 | 3 | 37.5 |
| 15221 | 0 | 0 | 2 | 25 |
| 15208 | 0 | 0 | 2 | 25 |
| 15213 | 0 | 0 | 1 | 12.5 |

All numbers are actual figures.

**Table 2: Chart of Zip Codes and Neighborhoods Represented by the Sample**

| Zip codes | Neighborhood | Municipality |
|---|---|---|
| 15214 | Lebanon<br>North side<br>Upper St. Clair<br>Ross Township | Pittsburgh<br><br>Ross Township |
| 15216 | South Hills<br>Dormont<br>Beechview | Pittsburgh |
| 15210 | Mt. Oliver | Pittsburgh |
| **15221** | **East Hills**<br>**Regent Square**<br>**Wilkinsburg** | **Pittsburgh**<br><br>**Wilkinsburg** |
| **15219** | **Bedford Dwellings**<br>**Crawford Roberts**<br>**Hill District**<br>**Terrance Village** | **Pittsburgh** |
| **15213** | **Terrance Village** | **Pittsburgh** |
| **15208** | **North Point Breeze**<br>**Homewood** | **Pittsburgh** |

HEZ Information in this chart was derived from the HEZ chart prepared in March 2005 by Thom Stulginski of the Allegheny County Health Department. The zip codes in bold represent the HEZ zip codes.

Five themes emerged from the analysis of the data collected from the two focus group sessions. The five themes included are: 1) Smoking Initiation and Continuation; 2) Reasons for Wanting to Quit; 3) Power of Addiction; 4) Will power; and 5) The ideal Cessation Program. The following sections will discuss each theme.

## 4.2 THEME ONE: SMOKING INITIATION AND CONTINUATION

The majority of the participants started smoking in their preteen and adolescent years. The ages of smoking initiation ranged from age 9-16. Two participants started smoking at age 12, two other participants started at 13. An additional two participants initiated smoking at age 14, and two more started at 16. The first focus group indicated that smoking initiation and continuation was heavily determined by the women's environment and the company they kept. Family plays a crucial role as two participants said:

> *" I think it has to due a lot with the company you keep …everybody else in my family smokes so if you go to a function you got ten people smoking when you are in a situation where you are quitting and everyone is smoking around you, it's hard." -1st focus group*

> *"We had generations of smokers."-1st focus group*

Some participants started smoking when they were younger by mimicking the smoking behaviors of their mother, as indicated by some participants in both focus groups:

> *"I just wanted to be like my mom and pop they made it look cool." -1st focus group*

> *" When you are younger, I used to see my mom smoking I used to be like I want to do that they used to be all in the living room smoking she's blowing o's" – 2nd focus group*

> *"I started watching my mom smoke… It was nasty but I wanted to be like her."- 2nd focus group*

Some participants were not allowed to smoke at home, and would therefore go out and "sneak" to smoke in the company of their friends.

> *"I was sneaking, I wasn't allowed to smoke… that's what it was [a thrill from sneaking] … that's at the beginning stages. Then after that I wasn't like that anymore."- 1st focus group*

> *"I was 13 and all my friends' smokes, peer pressure… this girl showed me how [to smoke]..."-1st focus group*

> *"I was just sneaking smoking with my friends."- 1st focus group*

Whether it was smoking with family, friends or the media's influence, both groups indicated being allured by smoking because their initial influences made smoking look cool.

*"They make it look so cool blowing o's and everything."- 1st focus group*

"*They [movie stars] made it look good [smoking] like it was supposed to be sexy."- 2nd focus group*

Stress was identified as an important contributor of smoking by some of the participants particularly with raising their children as a barrier to quitting and a factor for continued smoking. Smoking has also been a stress reliever for some of the participants as they smoke to cope with frustration or when they are upset.

*"You be stressed out from them kids… It's hard for me to quit oh Lord I wish I wouldn't have had none they get on my nerves…drive me up the wall."- 1st focus group*

*"I started doing it more and more I got addicted and every time I get upset or frustrated or something, [or when] I'm going through something."- 2nd focus group*

Lastly, women in the first focus group confessed to smoking out of boredom. Smoking not only relieves stress but it also provides the women something to fill their idle time.

*"That's a big part of it too is being bored."-1st focus group*

*"When you're smoking a cigarette you don't think about being bored."- 1st focus group*

## 4.3 THEME TWO: REASONS FOR WANTING TO QUIT

Participants were asked to tell why they want to quit smoking. Respondents from both groups indicated wanting to quit due to having breathing problems. Breathing problems were either a result of or were worsened by smoking.

*"I got to quit though, I can't breathe and I refuse to die."- 1st focus group*

*"I got asthma."- 1st focus group*

*"I'm getting older and [have] breath[ing] issues"- 2nd focus group*

The second reason mentioned for wanting to quit was for the sake of their children. Interestingly, it appears that children play a dual role in promoting continued smoking due to stress and as being one of the major reasons the participants wanted to and tried to quit. Participants from both focus groups said their children have expressed concern about wanting their mothers to quit either by a drawing created by the children or by the comments they made.

> *"…My kids drew me a picture, they drew me standing in front of a billboard and they colored my lungs black and they asked me to quit…I really would prefer if they [kids] would leave me alone and let me do what I want to do but [I will quit] so they don't worry about their mother. You know I'll quit I'm going to try."- 1st focus group*

> *"My son he's learning that in school that smoking is bad so he comes home [saying ] your going to die…he'll be in my face he'll be on me everyday."- 2nd focus group*

Additionally, the women in the first focus group expressed a desire to quit for their children also out of poor role modeling concerns. The first group did not want their children to grow up patterning after their smoking habits.

*"I want to quit cause I don't want my kids to see me smoking…"-1st focus group*

> *" And our kids are starting to get to the age to where you know they are looking and eventually its out there other kids are peer pressure and I just don't want my kids saying mom can I get a ((square)) or I catch them with a square what can I say? What can I really honestly say I smoke. What can I possibly say cause it's like anything I say he or she will look at me like you know?"-1st focus group*

Lastly, both groups talked about the cost of cigarettes becoming increasingly more expensive; thus, making smoking a financial burden for them.

> *"I want to quit because it is hurting me financially. They keep going up and up and up."* *1st focus group*

> *"They are getting expensive, they keep going up."- 2nd focus group*

## 4.4 THEME THREE: THE POWER OF ADDICTION

Participants in both focus groups expressed their struggles with fighting the daily addiction of cigarette smoking. Their dependency on cigarettes causes them to have the urge to smoke a cigarette at specific points during the day throughout each day.

> *"…my first cigarette in the morning makes me feel high then my second one in my special room relaxes me." – 2nd focus group*

> *"I really need to smoke a cigarette when I wake up and after I eat"-2n d focus group*

> *"A cigarette is the first thing you do to get your day started and the last thing you do to end your day." -2nd focus group*

> *"It completes everything; it's the end to everything." -2nd focus group*

Both groups expressed a sense of helplessness in trying to quit and how hard it is for them to quit completely. They also articulated how controlling and powerful an addiction can be.

> *"It hurts me I am just tired of smoking. I am tired of feeling like that's the one thing in my life I don't have no control over. I have health issues to where I probably out of everybody in here, I probably need to be the one to quit the most but I just can't, I just can't."- 1st focus group*

> *"Smoking is addictive"-1st focus group*

> *"Yeah we all are addicted that's why we can't quit. You're addicted to cigarettes you're addicted to whatever you do if you can't stop it." -1st focus group*

> *"We all know smoking is bad but its hard to quit once you stop…you're going to go right back and get them [cigarettes] as soon as you walk away. That's how I feel but a lot of people can agree with how I feel."- 2nd focus group*

Both groups communicated feelings of needing to smoke as if they are dependent on it. The quitting experience is very difficult particularly at the beginning as the women expressed going through a withdrawal phase similar to premenstrual syndrome (PMS).

> *"It's [smoking] an necessity" – 2nd focus group*

*"Yeah your body has to have it [smoking]"- 2nd focus group*

*" It's hard the first three days of quitting you go through like a withdrawal a cigarette is a drug…you have an attitude if you try to quit you can be so nasty."- 1st focus group*

*"Yeah [quitting] is like PMS I definitely need my square." -2nd focus group*

*"That's what its like trying to stop smoking cigarettes you're evil."- 2nd focus group*

Overall, the women expressed their sentiments of being powerless against addiction and trapped into smoking. Quitting is further complicated because it has been embedded into their daily lives.

*"It's apart of us"- 2nd focus group*

Members of the second focus group identified family members who died, almost died or acquired a serious chronic condition as a result of smoking. Unfortunately, despite facing such serious life or death situations, the power of addiction caused some family members to continue smoking. Interestingly, although the participants had seen the harmful effects of smoking on their family members, this does not deter them from smoking.

*"My aunt had breast cancer do you think she quit smoking? She didn't quit smoking."-2nd focus group*

*"My grandma she died but she had lung disease and was in the hospital and wanted somebody to will her down in her last moments and she wanted a cigarette and I'm like in her last moment because of the cigarette we watched her pass on wanting a cigarette that was tripping me out."-2nd focus group*

## 4.5 THEME FOUR: WILLPOWER

Willpower came up repeatedly during both focus groups, particularly when the question was asked about unmet personal and community needs for permanent cessation. Both groups indicated that the mindset to quit is needed. Participants in both focus groups acknowledged that it is up to the individual to want to quit. The women showed that they know what they need to do to quit permanently. The women also demonstrated a lack of willpower and one participant acknowledged her lack of willpower to quit by stating:

> *"I want to quit but I can't.-2nd focus group*

> *"You have to have strong will power and I don't got that." -2nd focus group*

The challenge is finding creative ways to effectively motivate them to reach the level of self-efficacy to quit and maintain smoking abstinent.

> *"It's a mind thing when I have it set in my head no, I'm not going to smoke" -1st focus group*

The women appear to perceive willpower as a form of determination that they can acquire once they decide to quit. Based on the quotes regarding willpower it appears that the women may want to quit and have contemplated quitting, but are not ready to do so.

> *"I just need willpower"- 1st focus group*

> *"When I got will power; I will quit"- 1st focus group*

During the second focus group session, the moderator (author of this thesis) asked the participants what they felt would make them reach the point where they could generate the willpower to quit one participant said it would have to be a life or death situation.

> *"Under certain circumstances I would [quit] but like I said just for my health or for my daughter I will…Something drastic is going to have to happen to wake me up."-2nd focus group*

## 4.6 THEME FIVE: THE IDEAL SMOKING CESSATION PROGRAM

When asked to describe their ideal smoking cessation program, the first group indicated a need to escape from stress, kids and smoking environment through a boot camp for women or a women's retreat. The first focus group indicated a 2-3 week smoking cessation program with constructive and relaxing activities to do such as crafts, reading etc.

> *"It should be like a three or week boot camp we don't even need to call it a boot camp you can call it a woman's retreat where you do all girly stuff things people teach you how to do stuff."-1st focus group*

The first group also indicated that didactic, traditional classroom methods are not effective; classroom lectures should be a minimum of 20-30 minutes in length. The first group discussed how important it is for them to have the intervention or cessation class taught by a former smoker or someone from a smoking background who can understand first-hand their struggles with quitting smoking and can serve as a role model to help them successfully quit.

> *"I would think the person would have to come from a smoking background it would have to be somebody that's been there that really knows that you're feeling because if they've never smoked they really can't feel where you're coming from because people who don't smoke are like oh you should be able to quit smoking just don't smoke but if you've smoked and had experience with it you know its not just that easy for somebody who smokes. You always feel like people who don't smoke you feel like they are judging you"- 1st focus group.*

## 4.7 QUIT EXPERIENCES

The participants discussed the difficulty they had with quitting, particularly as they made their quit attempts. Some participants found the quitting experience to be frustrating.

> *"Its hard sometimes trying to deal with a situation without smoking a cigarette because me I get so angry and so frustrated I'm ready to beat somebody down so its like I'm going to go smoke me a cigarette … to calm my nerves"-1st focus group*

> *"Oh very yeah it's very frustrating and then I need to smoke a cigarette."- 2nd focus group*

With regard to pregnancy, some of the women in both focus groups talked about quitting during pregnancy. The women who quit during pregnancy resumed smoking post-delivery, and could not provide an explanation for their relapse. One participant from the first focus group said she stopped smoking temporarily for the sake of her child. During this woman's period of smoking abstinence, she was able to gain personal insight on the perspectives of non-smokers.

> *"Yeah because when I was pregnant I didn't smoke throughout my whole pregnancy I wasn't trying to quit I didn't want to quit I just didn't smoke. And I never realized how much a non smoker goes through with people who smoke. The smell is the most horrible smell it gets in your hair and your clothes it's nasty and it stinks… I don't even know what made me start back smoking"-1st focus group*

A participant from the second focus group said she stopped smoking during pregnancy due to hospitalization from pregnancy complications. Nausea, and stomach cramps were among the symptoms listed by two participants in the second focus group.

> *"I couldn't I stayed in the hospital my whole pregnancy so I couldn't smoke I was the sickest person in the world." -2nd focus group*

> *"[smoking] It would make you nauseated my whole pregnancy."- 2nd focus group*

> *"See with me I used to get cramps."-2nd focus group*

As for the women who did not quit during pregnancy they either reduced their cigarette consumption, or continued to smoke throughout their pregnancy.

*"I cut back a lot but I didn't quit." -1st focus group*

*"I smoked in all my pregnancies never stopped."- 2nd focus group*

During the focus group session, the women were asked to identify some the methods they used to quit. The women from the first focus group said they used non nicotine replacement therapies (NRTS) such as sunflower seeds, bubble gum, unspecified pills, and prayer. The second focus group identified prayer, eating food and ice as non-NRT methods for quitting. All of these non-NRT methods involved mouth functions such as chewing, eating, and swallowing. The NRT therapies identified by participants in both focus groups were the nicotine gum and nicotine patch.

Lastly, four women in the first focus group disclosed the duration of their longest quit attempts; ranging from a couple hours to one and one half year.

*"I quit for about a year and a half."- 1st focus group*

*"Not me I quit for a couple of hours that was it."-1st focus group*

*"I quit for a week."-1st focus group*

*"A month."-1st focus group*

## 4.8 SIMILARITIES BETWEEN GROUPS

Some similarities and dissimilarities existed; regarding issues rose between the groups and the intensity and frequency in which some matters were discussed. This section will address the similarities found between both focus groups. The first similarity is in regards to the brand of cigarettes the women smoked. In both groups the participants said they preferred the Newport brand which is a mentholated cigarette. Interesting when the women in the second focus group were asked what brand cigarette they prefer to smoke, all women simultaneously said Newport.

*"I can't smoke cigarettes that aren't menthol." - 1st focus group*

*"I don't smoke anything but Newport's."- 1st focus group*

The study participants also demonstrated awareness of the health hazards of smoking. The participants in both groups made some reference to the chemical ingredients in smoking; they mentioned rat poisoning or rat parts in the cigarettes.

*"You're smoking a rat but you're sacred of a rat."-1st focus group*

*"There is a special ingredient they put in it the rat poison and all that."- 2nd focus group*

Unfortunately, this acknowledgement was not enough to deter them from continued smoking.

In regards to setting a quit date, both groups have mentioned setting a quit date around or on New Year's, as a news years resolution. However, setting a quit date was not an effective quit method for this sample.

*"New Year's I was like this will be my last one then I just got me a pack."- 1st focus group*

*"New Years every year I say that [I'm going to quit]"-2nd focus group*

Additionally, with regard to quit methods, both groups made mention to praying to help quit smoking and it not working for them.

*"I've been praying"- 1st focus group*

*"I think that is something you have to pray on, that's what I think but I prayed a long time and it still hasn't worked."-2nd focus group*

Lastly for cessation programs, both groups indicated that incentives must be administered in order to get the women to attend.

*"They should offer you free stuff "-1st focus group*

*"Some type of incentive that's the only way you're going to get them to come"- 2nd focus group*

## 4.9 DISSIMILARITIES BETWEEN AND WITHIN GROUPS

There were some dissimilarities in the type, frequency and intensity in which some issues surfaced throughout both sessions. The first contrast was on the perceived media effects on smoking initiation and continuation. The first group said that media did not influence their smoking growing up.

> *"But now today it's the advertisements I think for these days for the new young generation I think it's advertised and it's seen a whole lot more I don't recall advertising before."- 1st focus group*

> *"They even got our cartoon characters smoking back then they didn't we didn't have none of that in front of our TV."-1st focus group*

Participants in the second focus group said that media did have an influence on their smoking initiation.

> *"They [movie stars] made it look good it was supposed to be sexy." – 2nd focus group*

According to the participants' accounts, the media can to make smoking appealing as well as deter people from smoking through disturbing ads.

> *"They showed a commercial four years ago and the lady was talking with a trachea in her neck and I said oh my god I didn't like that… She picked up a cigarette and blew it out her neck…"- 2nd focus group*

> "See that scares me'- 2nd focus group

> *"Yeah [seeing ads like that is enough to scare you] they need to show that one at least ten times"- 2nd focus group*

> *"Yeah I think that would make a big difference."-2nd focus group*

Different situations and scenarios raised separate issues of self-consciousness and discomfort with smoking by participants in both focus groups. This issue presented a second contrast between the two focus groups with regard to the same issue. The women in the first focus group admitted to feeling guilty smoking around certain groups such as religious people.

*"When we go on that retreat, we don't smoke at all. I think I'm embarrassed about the fact that I smoke depending on who I'm around when I'm around my church members I do not smoke."-1st focus group*

*"If I am with a church member all day long I cannot smoke all day long but when she leaves… Yeah I don't know why it's like that but I won't smoke around them but once I'm back to being myself I'm puffing."-1st focus group*

Participants in the second focus group said they felt uncomfortable smoking around people on oxygen support or in a room filled with babies.

*"I feel a little bit bad when those people had those portable oxygen tanks and come and sit right next to me looking at me."- 2nd focus group*

*"I would say a room full of babies would do it for me."- 2nd focus group*

The following paragraphs provide a brief description and supporting quotes, excerpts from conversations relevant to some important issues that were raised separately by participants in both focus groups.

With regard to physical environment, participants in the first focus group talked about the problems with living in a poor environment and community issues (e.g. violence, crime, concerned about safety for their children). These issues present worrisome situations that increased their smoking.

*"It's just what's out there now it's not necessarily a healthy environment for your kids to be in. You have to worry about your kid getting hurt."-1st focus group*

*"Yeah it is pretty much depending on the area that you live in our area they let the kids die."-1st focus group*

*"That is another reason why people smoke so much stuff going on in your life like for us to be as young as we are we have probably been to about 30, 40 funerals of people that we grew up with that got shot gunned down and its crazy."- 1st focus group*

Furthermore, the first focus group complained about indoor smoke policies; however these policies have proven effective in preventing them from smoking in certain public places.

According to the participants' accounts, the indoor smoking policies and fines appear to make continued smoking more bothersome for smokers. As a result such policies may decrease the amount of cigarettes smoked and further encourage them to try to quit.

> *"I think a lot of people are quitting now because you can't smoke no where now you know what I mean"- 1st focus group*

> *"Well you know what you have a right to smoke and I feel like they are violating some people's rights."- 1st focus group*

> *"Come next month we're not going to be allowed to smoke no where literally no where so it's like what's the point and I'm not getting a ticket for smoking."- 1st focus group*

> *"Yeah you get fined up to I think like $500 for a $4 pack of cigarettes."- 1st focus group*

Secondly, both groups identified the NRT-nicotine patch and gum, but there was a mixed consensus between participants in the first focus group regarding the effectiveness of the nicotine patch and gum; some said it worked and others said it did not work for them.

> *"I like the patches."- 1st focus group*

> *"It don't work it didn't work for me [the patch]."- 1st focus group*

> *"The gum does not work for everybody."- 1st focus group*

> *"That Nicorette gum tastes like an ashtray its nasty."-1st focus group*

Participants in both focus groups addressed drinking alcohol and smoking. The participants in the second focus group talked more in depth about how the two compliment each other.

> *"And it's hard too especially if you go out and have a couple of drinks you really want to smoke your cigarette then."-1st focus group*

> *"I don't understand how people can drink and don't smoke a cigarette."- 2nd focus group*

> *"Yeah cause they go together just like butter and toast."-2nd focus group*

> *"Any type of alcohol I'm drinking I need to smoke a cigarette with no matter what kind it is."- 2nd focus group*

Interestingly, a participant from the second focus group also addressed the issue of using food for comfort and smoking to prevent overeating.

> *"I use food for comfort that's my problem. [I] Smoke to keep away from that food that's what I do I smoke to keep away from food… As long as I'm puffing and moving I ain't thinking about no food but [when] I'm just sitting and looking I am thinking about that food."- 2nd focus group*

## 4.10 SUMMARY OF RESULTS

The overall results from this study show that the socio demographic characteristics as defined by previous research concur with the results found in this study. Four zip codes which are part of the Healthy Black Family Project (HBFP) Health Empowerment Zone (HEZ) were represented in this focus group. There were notable dissimilarities between participants in both focus groups however some common contexts emerged from both sessions. All of the participants were current smokers, most started smoking during adolescence due to family influences or peer pressure. Most maintain smoking for the same reasons that initiated their smoking behaviors but also continue to smoke for additional reasons such as stress, and nicotine addiction and boredom. Most of the women want to quit because of personal health and breathing problems, pressures from their child (ren), and the increasing cost of cigarettes. The women have identified using two types of Nicotine Replacement Therapy NRTs, the nicotine patch and gum to help quit. Yet, most participants varied on its perceived effectiveness. Others have indicated other informal methods for quitting such as prayer, chewing gum, eating food, ice, sunflower seeds and swallowing pills; all were ineffective for this sample population. The women also identified will power as the key to successful quitting and have acknowledged their lack of will power to quit.

# 5.0 DISCUSSION

## 5.1 SOCIO DEMOGRAPHIC QUESTIONAIRRE RESULTS

The results from the socio demographic questionnaire support findings from research studies. The women from both focus groups were found to have low maternal education and lower income levels which are concurrent with findings from previous research (Abrahamsson & Ejlertsson, 2000; Jesse et al., 2006).

With regard to zip codes, four of these zip codes represented in the sample population (15221, 15219, 15213, and 15208) ( refer to table 2 in section 4.1.1.) are part of the Center for Minority Health's Healthy Black Family Project's (HBFP) Health Empowerment Zone (HEZ) (Center for Minority Health, n.d.). The HEZ is a geographical area determined by the census tract for Allegheny County, clustering of neighborhoods that share similar demographics and are comprised of a population that is 60% African American. African Americans in the HEZ African Americans are more likely to die from smoke-related illnesses such as all malignant neoplasms and heart disease than Caucasians (Center for Minority Health, n.d.). Additionally, heart disease, cancer and stroke are the first, second and third leading causes of death in the eastern portions of Allegheny county; inclusive of some of these zip code areas (Center for Minority Health, n.d.). Such zip code data could suggest that more smoking cessation interventions should target these geographical areas more intensively.

## 5.2 SYNTHESIS OF THEMES AND FINDINGS

During both focus group discussions some participants complained about having asthma and other breathing problems. In addition to having the highest maternal smoke rate, Pittsburgh continues to have major air quality issues as it has been ranked the 98th out of 100 U.S. cities with the worst air quality in 2006 (Templeton, 2006). Thus, local asthma rates are higher as 1 out of 4 school –aged children from the outskirts of Pittsburgh (Braddock) are diagnosed with asthma (Tinsley, 2006). With regard to race, the Allegheny County statistics for 2002 show 11% of African Americans were diagnosed with asthma compared to nine percent (9%) for Caucasians (Allegheny County Health Department, 2002). Asthma diagnosis among Pittsburgh residents may be caused by a number of pollution and air quality issues in addition to tobacco smoke exposure (Templeton, 2006). Asthma is among the many health disparities that disproportionately affect children and African American residents in Allegheny County (Allegheny County Health Department, 2002; Tinsley, 2006).

According the accounts of the focus group participants, role modeling, peer pressure, stress, and boredom appear to be key determinants for smoking initiation and continuation among this population. As for quitting, the women want to quit because smoking has become bothersome for them physically, emotionally and financially (e.g. breathing complications, tired of their children asking them to quit, and the rising cost of cigarettes. When the women in the second focus group described their struggles with nicotine addiction, they expressed a sense of hopelessness. Despite the women's expressed desires to quit, addiction has over powered their efforts and determination to quit. For these women, smoking is not just a leisurely active; it has become a necessity for daily functioning and a crucial part of their lives. In a study conducted with African American maternal smokers, the importance of personal will power and personal

determination as key determinants for successful quitting were noted (Pletsch et al., 2003). The women in this study also identified willpower as a need for permanent cessation. However, the nicotine addiction is so powerful that the women in this study feel as though they lack the willpower (self-efficacy) to overcome this addiction.

The participants in the first focus group provided valuable insight on how they perceive cessation classes as well as what they feel is important to improve such interventions. In Icard and colleague's (2003) focus group study with African Americans, the participants said they preferred a well-known, credible, trustworthy member of the target population,; and not just a person with professional credentials, to present messages to their population. The women in this study expressed the similar sentiments as well. A credible cessation education facilitator in this case would be a former smoker or someone with a smoking background.

There were some interesting and unexpected issues that arose during the focus group sessions particularly during the second focus group. The women in the second focus identified an interesting relationship between food and smoking. As previous discussed in the results section, one participant during her quit attempt used food as a substitute for smoking. As a result, she over ate and gain excess weight. She resumed cigarette smoking and lost weight. Research has found a correlation between smoking cigarettes particularly during pregnancy with low maternal weight gain (Furuno et al., 2004). The participant also said that she smokes to stay away from food, but finds food to be comforting. Most of the participants in the second focus group agreed with what this participant said. It appears that in this case smoking and over eating can serve as negative substitutes for one another. It also signifies that the women make poor decisions with regard what they resort to for comfort, coping and stress relief.

## 5.3 UNDERLYING THEORETICAL CONSTRUCTS

Three underlying behavioral change theories surfaced during both focus group discussions. It appears that constructs from the two behavioral change theories: the Trans Theoretical model (TTM) and the Transactional Model of Stress and Coping (TMSC) and the Social Cognitive Theory were applicable to the themes that arose from this study. The TTM focuses on intentions to change as well as decision making regarding health behaviors (The Change Zone, 2004). The TMSC specifically addresses the issues of stress, coping and social support (Lerman & Glanz, 1999). The SCT the theory deals with cognitive, manners and emotional aspects of behavioral change (University of Twente, 2004 a). The following paragraph will discuss how some of the constructs from these theories surfaced during the two focus groups.

The stages of change model proved applicable as the majority of the women (at least 9 out of 13) were in the contemplation stage; in which they thought about quitting and have actually made an attempt to stop smoking. Self-efficacy in relation to will power came up throughout both focus groups as the women identified it as a personal unmet cessation need. The stress component of the Transactional Model of Stress and Coping appeared as the women talked about smoking cigarettes to cope with daily stress and frustration particularly with raising their children. Other components of the TMSC model also surfaced during the focus groups. The women indicated a lack of positive social support to help them quit. Additionally, the women in the first focus group, admitted to smoking cigarettes to cope with disturbing events such as the Virginia Tech Shootings and the death of loved ones.

Some constructs from Social Cognitive Theory appeared the social learning construct came up particularly during the subject of smoking initiation. The women addressed role

modeling as they talked about copying the smoking behaviors of their mother or friends. According to the accounts of the participants the mother and friends demonstrated poor role-modeling. The reinforcement construct in the SCT model appeared as the women in the second focus group talked about a disturbing television advertisement. The participants thought the ad had potential effectiveness in scaring people out of smoking if it was reinforcement and repeatedly advertised frequently. The identified theoretical constructs from the TTM, TMSC, and SCT can be used to develop or improved smoking cessation programs targeted toward this segment of smokers.

## 5.4 GENERAL LIMITATIONS WITH FOCUS GROUPS

There are strengths and challenges with conducting focus group research. One general limitation to conducting focus groups is that the findings from such study are not generalizable (Curtis & Redmond, 2007). Secondly, focus groups rely on the researcher's interest area and create an un-naturalistic interactive setting for the participants as oppose to participant observational research. Third, accuracy of results obtained from focus group research is questionable due to the reliance on self-reported data; recall and reporting bias is liable to occur. Fourth, is the possibility of social desirability in which participants may express views that concur with other participants even if those views are not representative of how the participant(s) actually feel (Curtis & Redmond, 2007; McNally, n.d.). Additionally, such group interactions can lead to conformity in which participants may not be as expressive as they may have been had they participated in a one-on-one interview. Lastly, focus group facilitation requires a skilled moderator (Curtis & Redmond, 2007).

## 5.5 STUDY LIMITATIONS

This study had its own strengths and limitations with regard to the questionnaire and focus group sessions. The questionnaire was instrumental in helping the investigator (author of this thesis) to acquire basic information from the sample population. The investigator was able to ascertain the ages, economic status, and which neighborhoods in Pittsburgh that women come from, and compare these variables to previous literature on the target population. Such findings for the most part, support previous research. One limitation with the questionnaire is that it did not assess other important variables such as martial status, occupation, how many packs the women usually smoke per day and the number of times the women tried to quit as well as their longest quit attempt. The longest duration of smoking cessation arisen during the first focus group however, it would have beneficial to obtain such information from the participants in both focus groups.

The recruitment and screening efforts were carefully and meticulous conducted by the Director of Center for Healthy Hearts and Souls. The original aim was to recruit 20 women total for the study. As a result, 13 women attended; five out of six women who confirmed to attend for the first focus group and eight out of ten women who confirmed in the second focus group. Despite meticulous and recruitment and screening; a few participants did not meet all the eligibility requirements. For example one of the study requirements were that the women must be between the childbearing ages of 18-40; one participant was 48 years old. Another requirement was that the women must have made at least one attempt to quit smoking. In the second focus group half (4 out of 8) women had not made a quit attempt. This had a slight impact on the study findings because one of the key aims of the study was to ascertain the quit

experiences and quit methods. Also, two of women who had not tried to quit, were not interested in quitting. These women appeared to become a little defensive, prideful as if they were being judged and less engaged throughout the focus group; especially when the discussion shifted to quitting.

Another complication with the participants was cooperation. Despite setting ground rules at the beginning of each focus group, obtaining full cooperation from the participants remained a challenge. The women were asked not to have any side conversations or over talk each other; however, this still occurred. The women were also asked  not use their cell phones during the focus group session, one lady who arrived a half hour late to the second session took three phone calls throughout the discussion. Furthermore, all of the women were current smokers, since there were no former smokers in either group; it prevented the moderator from asking the focus group question designated for former smokers which asks about which quit methods used worked or did not work. The focus group moderator's guide presented a limitation in retrieving more information about the women's quitting experiences, particularly from the participants in the second focus group. To combat this issue, the moderator could have asked the participants if they knew of any one who successfully quit and what methods the former smokers used.

In reflection of the focus group sessions, the author of this thesis realizes how important it is to pilot test any assessment instrument before actual execution.  The focus group questions for this study were reviewed by the master's thesis committee and the Director of the Center's for Healthy Hearts and Souls, but it was not pilot tested on members of the target population. Therefore, it is imperative to pilot test an instrument with a couple lay members of the target population before final use of an instrument to ensure the comprehensiveness and productivity of

the questions composed in an instrument (Krueger & Casey, 2000). Pilot testing also ensures accuracy and validity (Krueger & Casey, 2000).

The similarities, dissimilarities and findings from the two focus groups indicate that further exploration is warranted to reveal unknown information about this target population. Three to four focus groups for small scale studies done with a particular sample is the suggested number , however the investigator was only able to conducted two sessions due to time constraints and budget limitations (Krueger & Casey, 2000). Therefore, theoretical saturation has not been reached. If this in-depth study had reached theoretical saturation, then the results could have been transferable for application to other similar groups (Krueger & Casey, 2000). Though this places a great limitation on this study, the findings do provide valuable information and that can guide investigators into the next direction for advance research in this topic area.

Such limitations, does not distract from the strengths of this study. Through the focus groups the investigator was able to gain hands on experience with conducting qualitative research and has learned tremendously about the study population and importance of qualitative research. The investigator was also able to apply academia knowledge into her work. Furthermore, the study allowed the investigator to personally interact with the study population. The investigator was able to generate ideas and considerations for further research into this area as well for smoking prevention and cessation interventions for African American women. Most importantly, the focus group sessions, provided the women with a forum in which to voice their concerns, frustrations and the pain that they suffer from nicotine addition. It was also very helpful in allowing the investigator to gain insight about the participants' quality of life and their views about their community and environment. However the author was challenged to formulate a focus group question that could not only directly link the quality of life in Pittsburgh to

maternal smoking; but would have also be been a relevant and productive question to ask as well. Whether or not there are unique factors or specific factors with increase intensity in Pittsburgh that exacerbates the maternal smoking rate, remains a mystery for the investigator.

# 6.0 RECOMMENDATIONS AND CONCLUSION

## 6.1 RECOMMENDATIONS

Findings from this study support previous research studies that examined tobacco use during and after pregnancy. The study findings concur that interventions aimed at African American women should incorporate stress management as well as social support mechanisms into the interventional design and implementation process (Jesse et al., 2006). This study differs from other studies as it focused specifically on African American women in Pittsburgh, Pennsylvania and attempted to discover their quit experiences and methods used as well as to identify their unmet needs for smoking cessation. Another unique feature of this study is that it solicited ideas from members of the target population for an ideal cessation intervention. This study was able to capture the magnitude of the women's daily struggles with addiction and quitting.

The study findings also show key areas to consider for interventions and further studies. Based on the focus group findings in regards to non-NRT methods, developing a cigarette replacement intervention involving the mouth and hands can be very crucial. The women know about the dangers of smoking and have seen first hand (through relatives) the effects of smoking. They also know that they need willpower to successful quit smoking. The critical challenge for cessation interventions is finding creative ways to motivate the women to increase their self-

efficacy and will power to quit. The first focus group indicated that traditional lectures are ineffective. Therefore, researchers are challenged to find cessation programs that can creatively and interactively provide smoking education to the women. Classes or support groups should also include the mothers, smoking partners and the children in order to improve social support network and to show these crucial influential parties how they can help the women in their quit efforts. In addition to stress management, cessation classes should deal with self-confidence and self-esteem building as well. The women in their discussion about helplessness in quitting demonstrated a lack of self-efficacy in their ability to generate the willpower to quit successfully.

Furthermore, participants in the first focus group provided sound ideas for a cessation program. The first focus group suggested having a two- three week women's retreat filled with crafts and interactive activities. For smoking cessation classes the women in the first focus group suggested that the class be taught by a former smoker. It was also recommended that the class room lecture be kept at a minimum of 20-30 minutes. These suggestions should be further examined and considered for cessation interventions for this target population.

In addition, the author of this thesis proposes that this information generated from these focus groups be used to create smoking prevention programs for young African American girls between the ages of nine (9) to twelve (12). Targeting young girls with anti-smoking prevention efforts may help stop or delay smoking initiation. Such intervention should be holistic and emphasis healthy living behaviors inclusive of self-esteem building, stress and grieving techniques, formulating  healthy relationships, informed decision making , nutrition and life skills.

This study was also instrumental in uncovering additional gaps in understanding about this population. For example, the women in the focus groups talked about using smoking for

relaxation and as a mental escape from their problems. Recommendations for further research include examining the concept of escapism more closely. More research is needed to assess other quit methods not mentioned particularly non- NRT methods that were successful. Further research in this direction should be comparative, particularly between races to assess if and what differences in smoking and quitting experiences and needs are for this population of women. Focus groups should be conducted with: 1) current African American smokers; 2) current Caucasian smokers; 3) former African American smokers; and 4) former Caucasian smokers.

## 6.2 CONCLUSION

The results of these focus groups demonstrated that women are knowledgeable of the health hazards of smoking as well as the key to successful quitting. Addiction, stress and the smoking environment were identified as major deterrents for successful quitting. The women also indicated a desire to find something that can replace tobacco use. Finding a replacement for the soothing effects of smoking presents another challenge for researchers.

As a result, this research has public health relevance and significance because it can help investigators gain a better understanding about the effects addiction has on people, the influence that addiction has on decisions to continue and quit smoking. Increased understanding about addiction will help researchers to find ways to fight it. This study can also facilitate further research on addiction, quitting, and relapse among African American maternal smokers. Lastly, such research can also provide ideas for modification of current cessation programs and the development of more effective interventions for this target population.

## APPENDIX A: IRB APPROVAL LETTER

**University of Pittsburgh**
***Institutional Review Board***

Exempt and Expedited Reviews

University of Pittsburgh FWA: 00006790
University of Pittsburgh Medical Center: FWA 00006735
Children's Hospital of Pittsburgh: FWA 00000600

3500 Fifth Avenue
Suite 100
Pittsburgh, PA 15213
Phone: 412.383.1480
Fax: 412.383.1508

TO: Ms. Kellie Gilchrist

FROM: Christopher M. Ryan, PhD, Vice Chair

DATE: March 23, 2007

PROTOCOL: Tobacco Use During and After Pregnancy: The Smoking, Quit Experiences and Relapse of Pregnant and Post Partum African American Women in Pittsburgh, PA

IRB Number: 0702027

The above-referenced protocol has been reviewed by the University of Pittsburgh Institutional Review Board. Based on the information provided in the IRB protocol, this project meets all the necessary criteria for an exemption, and is hereby designated as "exempt" under section 45 CFR 46.101(b)(2).

Please note that the advertisement that was submitted for review has been approved as written.

- If any modifications are made to this project, please submit an 'exempt modification' form to the IRB.
- Please advise the IRB when your project has been completed so that it may be officially terminated in the IRB database.
- This research study may be audited by the University of Pittsburgh Research Conduct and Compliance Office.

**Approval Date**: March 22, 2007

CR:kh

## APPENDIX B: INFORMATIONAL FLYER

**When and where should I be to participate?**

**When:**

Friday April 27th

**Where:**

Centers for Healthy Heart and Souls

100 North Braddock Ave

Suite 304

Pittsburgh, PA 15208

**Time:** 6-8pm

**Questions?**

Contact: Kellie Gilchrist

(412) 624-4624 or (412) 624-5665

Email: kdg21@pitt.edu

**Thank you for Your Participation!**

# Master's Thesis Research Study

**What is this study about?**

This is a study of African American mothers who tried to quit smoking. The main purpose of this study is to gain better understanding of how some African American mothers decided to quit smoking and the specials needs of African American mothers to help them quit for good.

**Why are the requirements to be in the study?**

**Participants must be:**

An African American woman

Between the ages of 18-40

A former or current smoker

Have a child under the age of 3

Made at least one quit attempt during pregnancy or motherhood

**What will be my role in this study?**

You are selected to participate in a focus group session. Focus group sessions are like a group discussion. You will have the opportunity to answer some questions, express your opinions and talk with other people just like you. The focus group discussion will only last for 1 1/2 hr. **It is very important that you try be on time. The session will start promptly.** Your participation is completely voluntary, and you may withdraw from the study at any time.

**What will I get for participating?**

Upon complete participation in this study, participants will receive free $20.00 gift card to Giant Eagle. Lunch will also be provided.

**What about confidentiality?**

Your privacy is very important and will be respected. Response to questions will be anonymous, your name and personal identity information will not be used, shared or published in this study.

## APPENDIX C: TELEPHONE SCRIPT-FOR FOCUS GROUPS

**Hello is _____ there?**

Hi my name is _____ I am a student from the Graduate School of Public Health, and University of Pittsburgh. I am not a telemarketer; I'm just calling today to invite you to participate in a research study that a student from the Graduate School of Public Health and the University of Pittsburgh in partnership with the Centers for Healthy Heart and Souls. This study looks at African American women in Pittsburgh who have a history with smoking and quitting. This study is in a form of a focus group session, which is similar to a group discussion. Participants will be asked some questions and will get to answer the questions based on their knowledge and opinions. We are trying to get a better understanding of the experiences with quitting cigarette smoking among African American mothers in Pittsburgh. We hope to gain a better understanding of how we can better assist smoking mothers in this area, to quit successfully. The focus group session will only be about 1 ½ hr; Participants will also be asked a brief five question survey. Possible risks to this study include possibly familiarity with other people in the group, which could cause discomfort in expressing your opinion. The session will be tape recorded which presents a small breach of confidentiality. However, we respect your privacy and confidentiality and we assure you that your name will not be published nor associated with your responses. Tape recordings will be kept in a locked file and destroyed upon completion of the study. During the session, you can use just your first name or a fake name if you want. For your participation, you will receive a free lunch and a $20.00 gift card to Giant

Eagle. Your participation is completely voluntary and you can withdraw at any time. Would you be interested in participating in this study?

**{ If no}:** Thank you very much for your time and have a great day!

**{If unsure}:** Madam, I understand your uncertainty, can I further explain what your involvement would be? Your involvement would be to engage in a group discussion with a few other African American women and fill out a short, five question survey. Your input is very important and can help make a difference in how quit programs treat mothers who want to quit smoking.

**{ If Yes}:** Great! But before I enroll any one into this study, I have to determine if the person is eligible. So what I would like to do now is ask you a series of questions. There is a chance that some of these questions may be sensitive and may make you feel uncomfortable, if so please let me know. You don't have to answer those questions if you don't want to, okay. You also need to know that all the information I receive from you by phone, which includes your name, and any other identifying information, will be strictly confidential. The purposes of these questions are to determine eligibility to participate in this study. Keep in mind, your participation is completely voluntary and you do not have to answer these questions. Do I have your permission to ask you these questions?

**{If No}:** Thank you for your time and have a nice day

**{If Yes}:** Thank you. I just need to know:

- Are you an African American Woman?
- Are you between the ages of 18-40 years old?

- Are you a current or former smoker?
- Do you have a child that is less than three years old?
- Have you ever tried to quit smoking at any point during your motherhood?
- You are not pregnant, correct?
- Okay would you be able to make the focus group session at Healthy Hearts and Souls on TBD?
-

**{If Yes}:** Great! You should receive more information about the study and directions to the Center for Healthy Hearts and Souls, through the mail with in the next couple of days. Your mailing address is _____, correct?

In addition to the mailings, May I have your permission, to grant the student doing the research study, permission to give you a follow-up phone call the day before the session just as a reminder?

{**IF No}:** We will honor your request and only send up materials through the mail. If you have any other questions about this study, or if you need to cancel your participation, please call me as soon as possible at (412) 624- 4624 Thanks again .Good- Bye

**{If Yes}:** The student who is doing the study name is Kellie Gilchrist. She will contact you the day before the study. If you have any other questions, or if you need to cancel your participation, please call me as soon as possible at (412) 624- 4624 Thanks again .Good- Bye.

## APPENDIX D: FOCUS GROUP QUESTIONNAIRE

**For Confidentiality Reasons: Please <u>Do Not</u> put your name on this sheet**

**1. Age _____**

**2. Race/Ethnicity: (Check one)**

- **African American (Black non- Hispanic)**
- **White (Caucasian non-Hispanic)**
- **Hispanic or Latino**
- **American Indian/ Alaskan Native**
- **Asian/ Pacific Islander**
- **Other (please specify) _____**

**3. Highest level of education (Check One)**

- **Less than high school**
- **High school**
- **High school diploma/GED**
- **Some college**
- **College graduate**
- **Some graduate school**
- **Master's degree**
- **Doctorate/ Post Doc degree**

**4. Income range (net income per year)**

- **$0- 9,999**
- **$10,000- 19,999**
- **$20,000- 29,999**
- **$30,000- 39,999**
- **$40,000- 49,999**
- **$50,000- 59,999**
- **$60,000- 69,999**
- **$70,000- 79,999**

- **$80,000- 89,999**
- **$90,000- 100,000**
- **Over $100,000**

**5. Zip code _____**

## APPENDIX E: FOCUS GROUP INTRODUCTORY SCRIPT

Hello everyone, before I begin, I would like to thank everyone for taking time out of your busy schedule to participate today. My name is Kellie Gilchrist and I am a second year graduate student at the Graduate School of Public Health, at the University of Pittsburgh. This is Charity Glass; she is helping me with this focus group by taking notes. I am doing a study on the issues surrounding smoking during and after pregnancy. The purpose of this study is to gain a better understanding of the experiences of quitting among African American women in Pittsburgh who used to and or continues to smoke, who has a child under the age of three years old and who has tried to quit smoking at some point during pregnancy or motherhood.

For that reason all of you are here today because you have agreed to participate. Pittsburgh has one of the highest rates of mothers who smoke, infant deaths and low birth rate babies. Your input will be valuable in increasing understanding about your needs for permanent quitting and ways to improve current cessation programs. We are not here to judge anyone, as a woman I understand how stressful and hectic life can be. I know you all must juggle a lot of responsibilities and stressful situations on a daily basis.

Therefore, we will ask a number of questions, and need your honest thoughts and opinions. There are no right or wrong answers; everyone has different points of view. I want everyone to feel comfortable expressing their opinions; therefore I ask everyone to talk to each other in a respectful manner. We ask that you please listen to one another and wait until a person is done speaking before you begin. As I state before all comments are helpful; so please do not

have any side conversations with your neighbor during the session. If I notice side conversations or people over talking each other I will raise my cell phone in the air like this, to signify the group to stop. You all are given name tags please wear them somewhere that everyone can see, to help us remember your names during this session.

You have probably noticed the microphone and tape recorder on the table. The discussion is being tape recorded so that we don't miss any of your comments. To ensure your confidentiality, we will only use the names you have selected for today, and will not use any of the names in our final reports. During the session, you can use just your first name or a fake name if you want. I have also passed around a brief survey for everyone to fill out. I ask that if you haven't already done so, fill the survey out before you leave, and please do not put your names on it. I ask that you return the sheet back to me, when you are done filling it out. I ask that you respect the privacy of each other and please do not share what we discussed today with anyone else outside of this focus group.

As a token of our appreciation, everyone will receive a free $20.00 gift card to Giant Eagle. The discussion will last about 1 ½ hr. Please feel free to help your self to food or use the restroom at any time during this session. If you have any questions, please do not hesitate to ask. Let us begin…

* Highlighted sentences were those added to the intro script after the first session.

## APPENDIX F: FOCUS GROUP QUESTIONS

1. Please tell me about when you first tried smoking?

   A. How did you get started?
   B. How old were you when you started?
   C. Where do you usually smoke?
   D. Do you smoke away from or around your child (ren)?

2. Why did you want to quit smoking?
   A. Why do you think people think about quitting?

3. How many of you have tried to quit smoking?
   A. Tell me what your experiences trying to quit smoking (e.g. was it easy, difficult?)
   B. What are some of the things you did or used to help you quit? (e.g. straw in mouth)
   C. What about setting a quit date?
      1. Who has tried it, and what was it like
   D. How does the whole quitting experience make you feel about yourself?
   E. Are there certain people or certain situations that makes you feel uncomfortable about smoking?

4. Is there anyone who has quit successfully? What worked for you?

5. Which of the things you did or used worked? Why?
   A. Which of the things you did or used didn't work? Why?

6. Ideally, what do you think you need personally to help you quit smoking permanently?
   A. What community resources are needed to help support you in quitting?

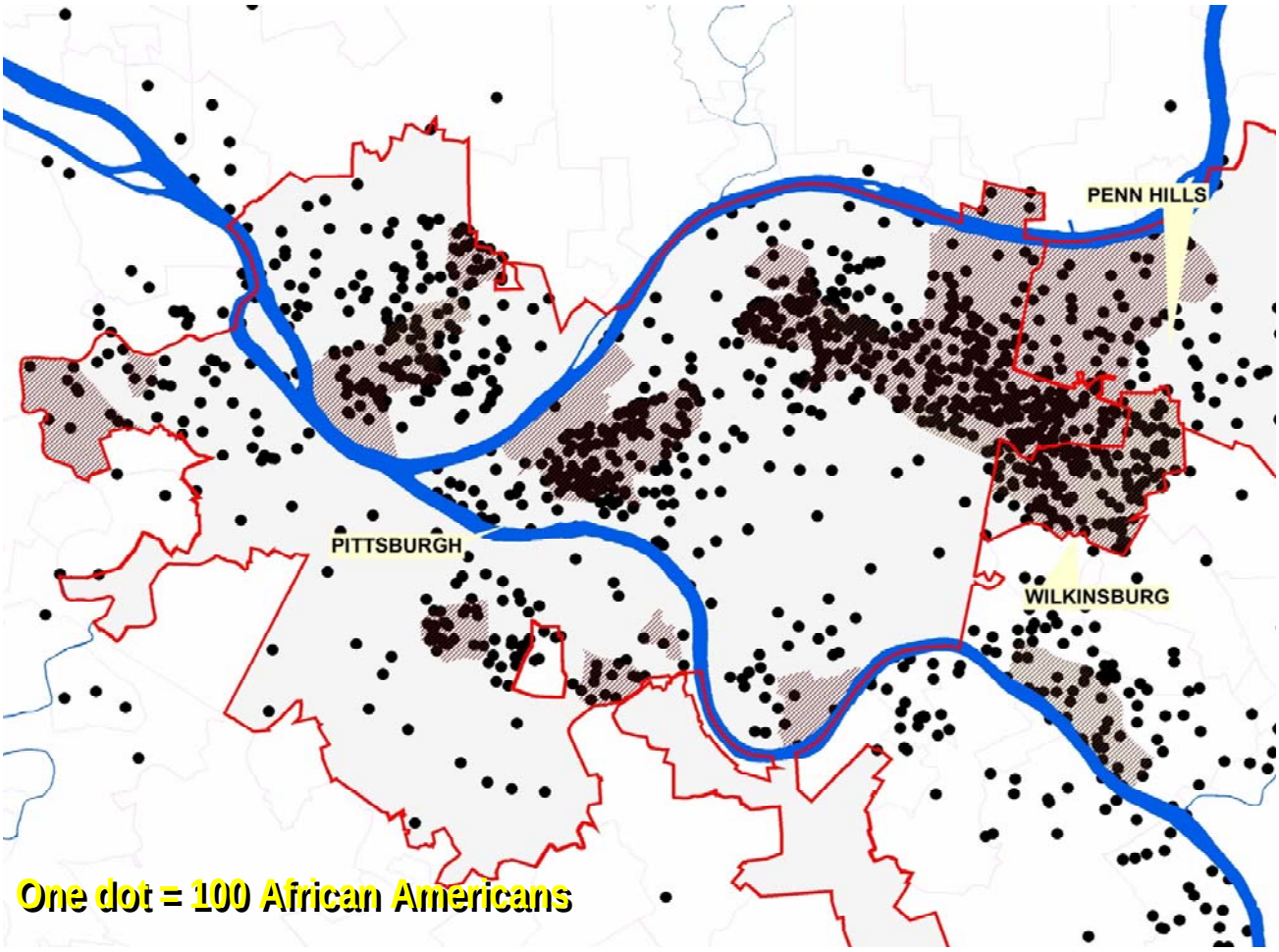
7. If you had to design an ideal program to help women stop smoking, what would the program look like? (E.g. staff, transportation, how would you market the program?)

*Additional question to ask if time permits:*

1. Is there any thing else about quitting smoking that we did not discuss that you think I need to know?

* Highlighted questions are additionally probing questions asked during the second focus group based off information that arose from the first focus group.

## APPENDIX G: HBFP/HEZ MAP



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