

Trends in Smoking Before, During and After Pregnancy in New York City

Adverse effects of smoking during pregnancy are well documented and include preterm birth and an increased risk of certain birth defects.¹ Infant and/or child exposure to second-hand smoke are associated with a higher risk of respiratory tract and ear infections, Sudden Infant Death Syndrome (SIDS) and asthma exacerbations.¹

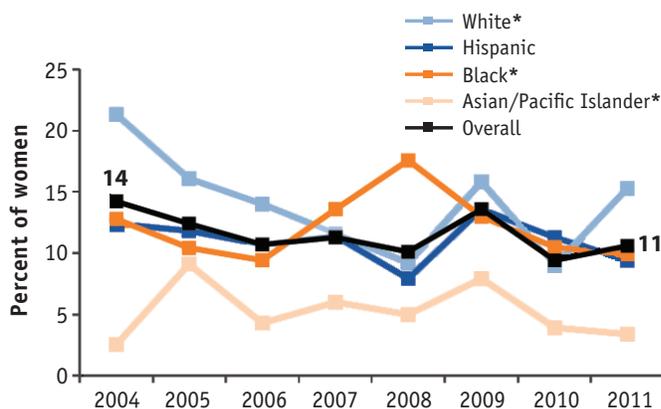
Since the Health Department implemented a comprehensive tobacco control program in 2002, smoking prevalence among adults ages 18 and older in New York City (NYC) has decreased from 22% in 2002 to 14% in 2014.²

Recent national data suggest that smoking during pregnancy has also declined as a result of tobacco control efforts.³ In 2011, 55% of pregnant women who smoked before pregnancy had quit smoking by the end of pregnancy, surpassing the Healthy People (HP) 2020 goal of 30%.⁴ However, relapse rates after delivery are high (40%).⁵

This report examines smoking cessation before and during pregnancy, as well as relapse shortly after delivery among NYC women. It also summarizes demographic differences.

One in ten women in New York City still smokes before pregnancy

Trends in smoking three months before pregnancy, New York City, 2004-2011



*non-Hispanic

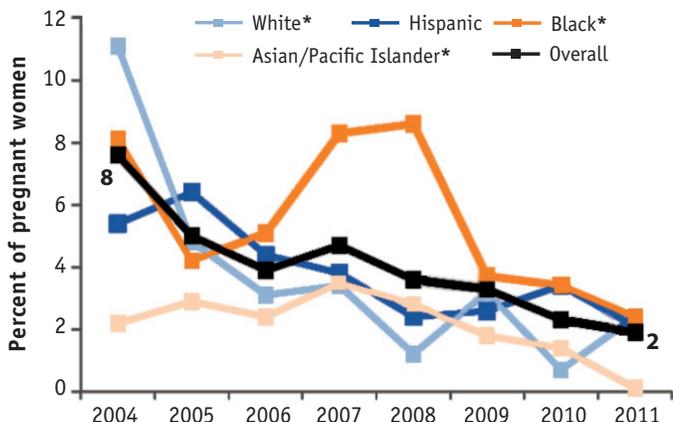
Source: NYC PRAMS 2004-2011

- From 2004 to 2011, the proportion of women who smoked in the three months before pregnancy decreased from 14% to 11%, led by decreases in White non-Hispanic and Hispanic women.
- In 2011, NYC achieved the HP 2020 goal of less than 14% of women smoking before pregnancy.
- In 2011, White non-Hispanic women had the highest prevalence of smoking before pregnancy (15%), followed by Black non-Hispanic (10%), Hispanic (9%) and Asian/Pacific Islander (3%) women.

Data presented in this report are based on results of the 2004-2011 NYC Pregnancy Risk Assessment Monitoring System (PRAMS) survey, a population-based survey of NYC resident women with a recent live birth (median infant age of 4 months) to gather information about attitudes, experiences and behaviors around the time of pregnancy. PRAMS is funded by the Centers for Disease Control and Prevention. Linear trends in smoking were estimated using logistic regression. Smoking status was assessed at three points: three months before pregnancy, the last three months of pregnancy and after delivery (median infant age of 4 months). Relapse after delivery was also assessed. Infant year of birth was the independent variable. Differences in smoking by maternal characteristics were assessed using the Chi Square test. Heavy smoking was defined as smoking greater than 10 cigarettes a day. More information about PRAMS, including the smoking questions, is available at www.cdc.gov/PRAMS.

Few women smoke during the last three months of pregnancy

Trends in smoking during the last three months of pregnancy, New York City, 2004-2011



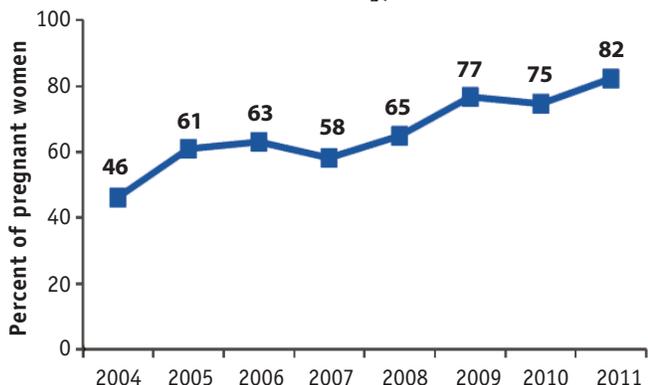
*non-Hispanic

Source: NYC PRAMS 2004-2011

- From 2004 to 2011, the percentage of women who smoked during the last three months of pregnancy dropped from 8% to 2%, with decreases across all groups defined by race/ethnicity, education, and Medicaid status.
- NYC is close to meeting the HP 2020 goal of less than 1.4% of pregnant women smoking.
- The proportion of heavy smokers (greater than 10 cigarettes a day) decreased from a quarter (23%) of pregnant smokers in 2004 to none (0%) in 2011.

Most women who smoke before pregnancy quit during pregnancy

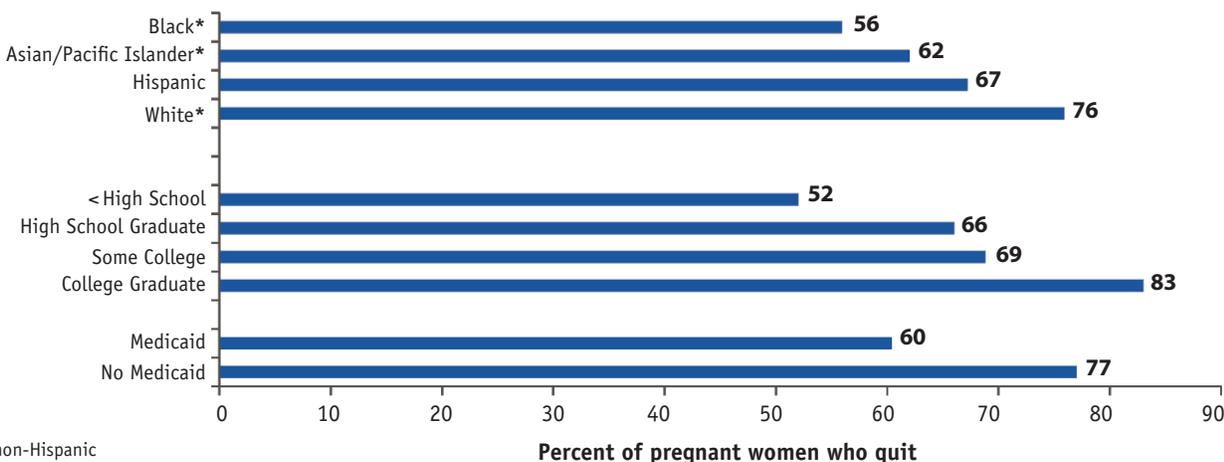
Trends in quitting smoking during pregnancy, New York City, 2004-2011



Source: NYC PRAMS 2004-2011

- From 2004 to 2011, the proportion of women who smoked three months before pregnancy and quit smoking during pregnancy increased from 46% to 82%.
- NYC surpassed the HP 2020 goal of 30% for women who smoked before pregnancy and quit while pregnant.
- However, quit rates were lower among Black non-Hispanic and Hispanic women compared with White non-Hispanic women, women with some college or less, and women enrolled in Medicaid.

Disparities in quitting smoking during pregnancy, New York City, 2004-2011

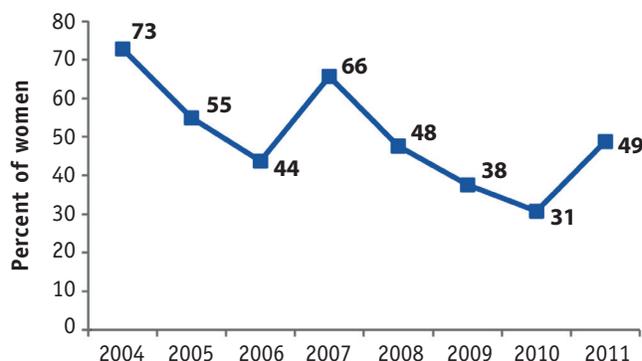


*non-Hispanic

Source: NYC PRAMS 2004-2011

Almost half of smokers who quit during pregnancy relapse after delivery[†]

Trends in relapse after delivery,[†]
New York City, 2004-2011



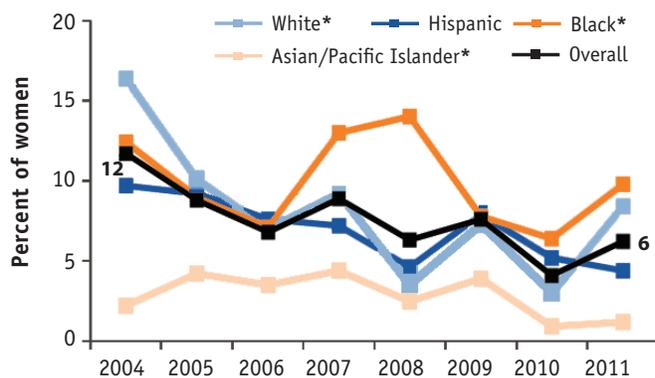
[†]Self-reported 2-9 months after delivery; median 4 months.

Source: NYC PRAMS 2004-2011

- Among women who quit smoking during pregnancy, the proportion who relapsed after delivery decreased from 73% in 2004 to 49% in 2011.
- Black non-Hispanic women were more likely to relapse compared with White non-Hispanic women (63% vs. 43%).
- Relapse was more likely among women with less than a high school education (58%), high school graduates (50%) and women with some college (54%) compared with college graduates (31%).

Overall, fewer women smoke after delivery[†]

Trends in smoking after delivery,[†]
New York City, 2004-2011



*non-Hispanic, [†]Self-reported 2-9 months after delivery; median 4 months.

Source: NYC PRAMS 2004-2011

- Women were less likely to smoke after delivery in 2011 than in 2004 (6% vs. 12%).
- From 2004 to 2011, smoking rates after delivery dropped among White non-Hispanic and Hispanic women.
- Among women who smoked after delivery, the proportion of heavy smokers decreased from 18% in 2004 to 5% in 2011.

Three quarters of prenatal providers discussed dangers of smoking

- In 2011, 74% of all women reported that a health care provider talked with them during their pregnancy about how smoking during pregnancy could harm their baby.
- Providers were more likely to talk with:
 - Women who smoked three months before pregnancy (84%) compared with women who did not smoke (71%)
 - Women receiving Medicaid (81%) compared with women without Medicaid (62%)
 - Women who were Hispanic (82%), Black non-Hispanic (81%) or Asian/Pacific Islander non-Hispanic (68%) compared with White non-Hispanic women (56%)
 - Women with less than a high school education (85%), high school graduates (76%) and women with some college (74%) compared with college graduates (58%)

Recommendations

Obstetricians, Pediatricians, Gynecologists, Family Physicians, and other providers should discuss tobacco use before, during, and after pregnancy.

- Discuss smoking and smoke exposure with all women of reproductive age.
- Discuss smoking and smoke exposure during every prenatal visit and child health visit.
- Provide supportive and practical counseling. Take advantage of free resources:
 - Help your Pregnant and Postpartum Patients Quit Smoking: A Coaching Guide
www1.nyc.gov/html/doh/downloads/pdf/smoke/postpartumpatients-coaching-guide.pdf
 - Smoking Cessation for Pregnancy and Beyond - A Virtual Clinic
www.smokingcessationandpregnancy.org
- Refer patients to the New York State Smokers' Quitline available online, by fax, or by the new Opt to Quit program: nysmokefree.com/HCP/HCPSubpage.aspx?p=70&p1=70220

Those who quit smoking during pregnancy are at high risk of relapse. Providers should discuss relapse and relapse prevention strategies during pregnancy, at hospital discharge, and at every follow-up visit.

- Provide counseling and medication (if appropriate) to those who have relapsed after delivery. See Section 7 of Help Your Pregnant and Postpartum Patients Quit Smoking: A Coaching Guide: www1.nyc.gov/html/doh/downloads/pdf/smoke/postpartumpatients-coaching-guide.pdf

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- 4 National Center for Chronic Disease Prevention and Health Promotion. Information for Health Care Providers and Public Health Professionals: Preventing Tobacco Use During Pregnancy. <http://www.cdc.gov/reproductivehealth/TobaccoUsePregnancy/PDF/HealthCareProvidersInfo.pdf>. Accessed September 26, 2014.
- 5 Tobacco Use and Pregnancy. Centers for Disease Control and Prevention website. Accessed April 20, 2015. <http://www.cdc.gov/reproductivehealth/tobaccoUsePregnancy/index.htm>.

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