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Understanding the African American “Smoker”

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Abstract

This commentary draws on the articles contained in this special African American youth and adult tobacco use supplement to better understand the apparent paradox of low youth smoking rates and high adult smoking rates. Implications for tobacco use prevention and control are discussed.

Implications: This commentary introduces the reader to the topics and questions addressed in the supplement and urges an invigorated public health response to address tobacco-caused disease and death in African Americans.

Introduction

What exactly are the smoking and tobacco use patterns of African Americans and how do they compare to other population subgroups and the US population as a whole? What do these particular patterns of use hold for African Americans in terms of health effects and disease outcomes? Are the observed smoking and tobacco use patterns of African Americans actually different from the US population or an artifact of survey methodologies that may or may not capture the information accurately? If there are actual differences, what explains the differences and what are the implications for programmatic interventions? Are different kinds of interventions needed and do we know what these are? The articles in this special supplement provide some intriguing answers to some of these questions and generate even more questions for further research.

The essential paradox this supplement seeks to shed light on is that African American youth smoking rates are reportedly lower than white youth smoking rates, while African American adult smoking rates are reportedly at least as high as white adult smoking rates. There seems to be a general understanding that African Americans initiate regular cigarette smoking at older ages than whites,^{1–3} but we’re not clear what’s going on exactly with the in between

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age group, young adults aged 18–24 (or 25) years, in terms of initiation or, more likely, transitioning to regular smoking. This gap in understanding needs urgently to be filled and represents a possible missed opportunity for public health to build on the apparent resiliency of African American youth in resisting pressures to experiment with or initiate tobacco use, as documented by Garrett et al.² in this supplement. Central to the paradox is what we mean by “smoking:” Are we interested in daily smoking only? What about occasional (less than daily) or irregular smoking—does that count? Do we mean cigarette smoking only or are we interested in cigar and cigarillo use and other tobacco use, as well? And what’s being smoked—do we care only about tobacco or should we be concerned about marijuana or a combination of the two?

Differences have been observed in smoking prevalence between African Americans and whites, but mainly for boys and girls^{2,3} and less so for men and women³; differences have been observed across the spectrum of types of tobacco⁴ and other substances.⁵ There are several possible explanations for these observed differences. They may be real and we may have accurately captured and described the differences and trends. But if they are real, they may be limited specifically to tobacco cigarette smoking and therefore be woefully incomplete. Our data may accurately capture, for example, differences and trends in tobacco cigarette smoking, but convey little or no information about the rich complexity of the African American “smoking” experience across the variety of tobacco products and the totality of the African American population. To understand the full picture of “smoking” we likely need to ask more and different questions using more and different survey methodologies.⁶ Alternatively, the observed data may be inaccurate; the observed differences and trends may be artifacts of survey methodologies, well-described in two articles in this supplement,^{7,8} methodologies that don’t include representation of the whole population,^{7–9} or miss a critical phase of development,¹⁰ or don’t ask enough questions in the right way to elicit accurate or complete responses that tell a full and detailed picture of smoking and tobacco use.

Several points seem clear. One is that standard survey methodologies may not adequately capture African Americans or their smoking and tobacco use status,^{7,8,11} even if they adequately capture the broad trends in cigarette smoking and tobacco use. That is, the observed larger trends may be largely accurate, even if the full story remains untold and the full population under-represented. It also seems clear that segments of the African American population are likely missing in greater proportion from survey populations than are similar segments of the non-Hispanic white population (likely because those segments of the white population are proportionately smaller). Kennedy et al.⁹ and Rolle et al.⁷ in this supplement speak to the absence from surveys of segments of the population that are incarcerated, for example. Or, the full story may be untold because African Americans are using a greater variety of combusted and other tobacco products than whites and surveys don’t capture this variety completely or at all, as described by Kennedy et al.¹² in this supplement. African Americans may be more likely to modify these products than their white counterparts and to do so in a greater variety of ways and thus provide accurate but misleading information when responding to questions that seem to refer narrowly to intact commercial cigarettes.¹³ Thus, while reporting accurately in surveys on their daily tobacco cigarette use, the nuances of use remain unascertained and the data incomplete. If these limitations and behaviors are

more common in youth than adults, the picture is further complicated. Observed youth rates of cigarette use (narrowly defined) may be artificially depressed and the full spectrum of use unappreciated, resulting in some of the paradoxical findings over time and explicated in the articles in this supplement.^{7,9,11,12}

The persistent hard outcome, that African Americans carry a disproportionate burden of tobacco-related disease,^{4,14,15} calls into question a full and deep understanding of African American smoking and tobacco use behavior over the life span and lead us to consider the inadequacy of our prevention interventions. In addition to understanding where there are differences and specifically what those differences are, we must strive to understand African American smoking and tobacco use in its full variety and complexity—on its own—in order to take more effective action to reduce the disease burden and narrow gaps in health status and outcomes between blacks and whites. While proven interventions like raising the price of tobacco are effective across the population¹⁶ and have been shown to reduce tobacco use by African Americans,¹⁷ additional, targeted interventions may be needed to address unique needs and behaviors of African Americans, youth and young adults.

Observed Prevalence of Cigarette Use

In this supplement, Caraballo et al.⁸ describe prevalence of cigarette use for three age groups based on cotinine levels assessed in the National Health and Nutrition Examination Survey (2001–2012) and compared these to self-reported data from four other national surveys, focusing on cigarette use, exclusively. For 12- to 17-year-old girls, the prevailing wisdom that African Americans have lower smoking rates than whites was confirmed. For 12- to 17-year-old boys, however, the results were inconclusive. While all surveys based on self-reports found a lower smoking prevalence among non-Hispanic blacks than non-Hispanic whites, no difference was found for this age group based on cotinine or self-reported data in National Health and Nutrition Examination Survey. For 18- to 25-year-old women, the prevailing wisdom that African Americans have lower smoking rates than whites was not confirmed; rates seemed to be about equal based on cotinine analysis. For 18- to 25-year-old men, results were similar to those observed among women; surveys point to slightly lower prevalence among non-Hispanic blacks than non-Hispanic whites while cotinine found no difference. For adult women aged 26 and older, results were inconclusive, while for men, non-Hispanic blacks had higher prevalence than non-Hispanic whites. Determining tobacco smoking status by cotinine level is blind to the type of tobacco smoked (eg, cigarette vs. cigarillo) and to whether the tobacco is smoked alone or in combination with another substance, and it gets around the sticky issue of the many questions needed to assess all the possible kinds of tobacco and ways to ingest it. However, it won't provide specific information on types of tobacco products used that may be necessary to design focused interventions. It is also not foolproof in other ways and may miss some of those who take tobacco only on some days and will miss those not represented in the survey sample (eg, the homeless or incarcerated populations).

Patterns of Use

Cotinine assessment is an impractical solution to the vexing problem of how to assess tobacco use completely and obtain accurate information from self-reported surveys. A rich understanding of patterns of tobacco use is critical to intervening effectively and preventing or mitigating harms. This includes understanding types of tobacco used (eg, cigarettes, cigars, cigarillos, alone or in combination), frequency of use (eg, daily, nondaily or sporadically), amount used (eg, number of cigarettes smoked per day) and how the product is used (eg, alone or in combination with other substances such as marijuana). And cotinine, as a marker of nicotine ingestion, provides no information on critical predictors of cessation, such as age of initiation. Data are mixed on whether and how these behaviors differ between African Americans and whites.^{1,18,19} Different patterns of use might call for different interventions to round out and reach more deeply than the proven effective interventions that comprise the standard tobacco control repertoire.¹⁶ In this supplement, Holford et al.¹⁸ note lower estimated mean cigarettes per day (CPD) for black men and women relative to whites, and substantially lower “duration burden” or pack-years for blacks compared to whites, due to lower consumption. However, lower cessation rates, also documented by Holford et al.¹⁸ but not by Kulak et al.,¹⁹ especially at older ages, may contribute to the higher disease burden. Kennedy et al.²⁰ examine the questions of types of tobacco and how they are used. While their overall findings confirm the observed differences in smoking prevalence for African American and white youth and young adults, they note that accounting for a richer collection of types of tobacco (specifically cigars and cigarillos) and other substances (specifically marijuana) attenuates these differences substantially (due largely, however, to decreases in any use by whites), based on data from the National Survey on Drug Use and Health.

Survey Methodologies

The National Survey on Drug Use and Health avoids several methodological challenges of other surveys, such as differences in landline coverage and use of cellphones, and, as a household survey, it includes out of school youth.⁷ However, like so many surveys it does not include persons who are incarcerated or active duty military, which may under-report smoking behavior.^{21,22} As Rolle et al.⁷ point out in this supplement, no existing surveillance system is designed solely and specifically for collecting accurate, comprehensive data on smoking and tobacco use behaviors for African Americans. Information presented by Rolle et al., as well as by Kennedy et al.,⁹ raise compelling questions about challenges in answering the full spectrum of research questions related to tobacco use behaviors of African Americans. Further, African Americans may be disadvantaged with regard to national (“whole population”) surveys, to the extent they have a higher likelihood of being out of school, incarcerated or in active military status, and to be “cellphone only” households, and survey methodologies exclude these groups.^{7,9} Any disproportionate exclusions based on these factors would be particularly troublesome for surveys on smoking and tobacco use behaviors as these behaviors may be more common among the excluded segments.

Understanding and Describing Differences

Even as the papers in this supplement seek to understand, describe and shed light on smoking and tobacco use behaviors of African Americans, to elucidate differences between African Americans and whites, and to point out challenges of surveillance systems and survey methodologies in providing an accurate and complete picture of the full package of behaviors, they all rely to one degree or another on these systems and methods to provide data and information for action. The papers in this supplement suggest nuances in smoking and tobacco use behavior that are not readily captured in standard surveillance systems and reports, identify opportunities for further study and elucidation, and suggest a need for targeted interventions that speak to the specific types of tobacco and modes of use, and the progression of use and addiction, that are most common among African Americans, especially in the youth and young adult years.

Perceptions that sporadic or nondaily smoking is not “really” smoking,²³ that mixing marijuana with tobacco is less harmful,²⁴ or that cigars are not as dangerous or addictive as cigarettes²⁵ (even if they look like and are used like cigarettes) may influence how participants respond to survey questions and, more importantly, how they view their own behaviors and risks, and how they moderate (or don’t) their progression to more regular and sustained use. Understanding and speaking to these perceptions may be critical to reducing initiation into smoking and tobacco use and the transition to regular use.

Conclusion: Health Outcomes and Programmatic Interventions

A basic tenet of public health is to make the best decision for action based on the best available information.²⁶ The information may not be complete and it may not be of ideal quality, but it is likely sufficient to chart a course of action, even as more data and information are gathered and analyzed. Hard data speak clearly that African Americans have lower life expectancy and higher disease and death rates compared to white Americans,^{3,27} that heart disease and stroke make up a critical portion of the disparity,³ and that tobacco-caused diseases, including cardiovascular disease, lung and other cancers, and chronic obstructive lung disease, occur at higher rates among African Americans.²⁸ Despite apparently lower rates of youth tobacco use, later age of initiation, lower rates of daily smoking, fewer cigarettes smoked per day and lower numbers of pack years, smoking and tobacco use behaviors inflict catastrophic harm on African Americans. A critical gap in our understanding is initiation into regular tobacco use during the young adult years, 18 to 25.¹ For African Americans, this time period is particularly dangerous. The protective factors that appear to keep smoking and tobacco use rates low for African American youth change during this period and leave African American young adults vulnerable to tobacco use and addiction during this susceptible period. While more effective interventions (or doubling down on proven effective interventions) are needed for all populations during this transition to adulthood, they would seem to be especially urgent for African Americans, as so many more (relatively speaking) appear to transition to regular smoking and tobacco use during this phase of development.^{1,29–31} Whole of population interventions have been effective in reducing smoking prevalence for all populations since 1964,³² but at this juncture, these proven interventions may need to be augmented with targeted, culturally relevant

interventions to counter tobacco industry marketing and reinforce antitobacco norms and pressures.³ Of course, even low rates of youth tobacco use are too high. In an environment of rapid change and new opportunities for youth initiation into smoking, vaping, tobacco use, and nicotine addiction (not to mention legal recreational marijuana use for adults in some states), redoubling local, state and national efforts to reduce and eliminate youth tobacco use is essential. Implementing all our proven interventions, especially the “tried and true” effective interventions that are not yet fully deployed across the country, is a long overdue line of defense.

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