3RD AACORN INVITED WORKSHOP
AUGUST 18-19, 2008
PHILADELPHIA, PA

Diversity Within African American Communities: Implications for Advancing Research on Weight Issues and Related Disparities

Compendium of Speaker Presentations

Overview and Objectives

On August 18-19, 2008, AACORN hosted its 5th Annual Meeting and 3rd Invited Workshop entitled: ***Diversity within African American Communities: Implications for Advancing Research on Weight Issues and Related Disparities*** focused on introducing the important issue of diversity among African Americans into the dialogue. The workshop engaged a diverse group of scholars, scholars-in-training, and community partners from across the United States. The overall goal of our 3rd invited workshop was to introduce the important issue of heterogeneity (diversity) among African Americans into the dialogue. The workshop objectives included: a) raising awareness among scholars who conduct nutrition, physical activity and obesity research (both observational studies and interventions) in African Americans to indicate when it is critical to take into account variation by age (e.g., chronological age, developmental stage, and generation), socioeconomic status indices, nativity or sub-ethnicity, residence area, and health status; b) identifying methodological approaches and gaps for assessing key aspects of variation among African Americans in the content areas of interest; and c) developing recommendations for both researchers and research policy makers (e.g., funding agencies) as to how study designs and analytic approaches can be formulated to improve the ability to understand variation where it is most important related to the content areas of interest.

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Session I: State of Black America

Growing Black Diversity in America: Economic, Social and Political Implications

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Long-held assumptions (both implicit and explicit) about homogeneity in racial populations are no longer tenable. In order to create successful interventions involving people of color, researchers must not consider communities of color as homogenous groups with uniform characteristics; researchers instead must develop strategies which consider a host of factors which contribute to the nuanced differences between various members of those communities: race, ethnicity, class, gender, and immigration.

The level of diversity among people considered to be black in the United States is growing at an increasing rate. What is known and understood about the black population in the U.S. will be very different by the middle of this century, if not by the end of this decade. The increased diversity is attributable to a few causes, chief among them: 1) immigration, particularly from Africa and from the Caribbean; and 2) growing differences in socioeconomic status among African Americans.

RICE is an acronym used to capture the essence of the work conducted on this issue. R = Race; I = Immigration; C = Culture; and E = Ethnicity, all within the context of gender, age, region, and socioeconomic status. It is critical to recognize RICE -- and the intersections among these very different aspects of people and populations -- if we are to understand the nature of population similarities and differences, and if we intend to mount effective interventions with individuals and families.

While some giants of the research community had conducted research prior to our work, there had been a long history of inadequately conceptualized, poorly conducted and interpreted research on blacks; and a dearth of empirically-trained social scientists that were sensitive to the issue of the uniqueness of the black population. In 1979, we conducted the National Survey of Black Americans (NSBA), in which face-to-face interviews of 2000 black people were collected by an all-black professional staff. NSBA was the first time research of this type had been conducted without a white control group, and as a result, there were no concerns regarding the difficulties in making racial comparisons. Simply put, what we learned from NSBA is that blacks are not all alike. Scientifically, we demonstrated that African Americans indeed spanned the same dimensions of structural, psychological, and attitudinal variables as did the rest of the American population.

Our research has taught us what we have termed the *Law of Small Effects in Race Outcomes*: 1) There is no single factor that produces observed disparities among racial and ethnic groups; and 2) There is a small group of differences between ethnic and racial groups (the sources of which are innumerable) which may accumulate over the life course to produce observed differences in living arrangements, and morbidity and mortality in adulthood.

Race as it has been understood in the U.S. has both biological and social aspects. The biological aspects relate to the genetic and physiological characteristics which produce the differences we can see. While the traits themselves are biological, the meaning of "race" is a social and historical construction. Historically, the nature of race in America has been dictated by hypodescent (often called the "one drop rule"), the practice of determining the classification of a child of mixed-race ancestry by assigning the child the race of his or her more socially subordinate parent.

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One drop of black blood in America has long meant that one is black. (Interestingly, in the rest of the world, one drop of white blood allowed one who appeared white to claim whiteness.) Both whites and blacks largely identify themselves and each other in similar ways. However, race is contested for every group in American society except African Americans and non-Hispanic whites. It is the agreement with regard to who is black that can unleash a set of social processes which work to produce the observable differences we see. However we construe race, there are two operative processes; it would be unlikely in the extreme to conclude that the biological process alone could account for the observed group disparities in chronic diseases, disorders, and mortality in the U.S. Social processes must also play a role.

Other key aspects of race in the U.S. include the longtime association of blackness with low intelligence and character, and the very real occurrence of racial discrimination in housing, education, occupation, and other areas of life. The combinations of these dynamics create the disparities we observe. Being identified by society as black (regardless of how one self-identifies) leads to one being categorized in many other ways that are unique to socially constructed blackness; once an individual is generally accepted as black, then all of the processes of discrimination, racism, and other kinds of stressors are free to operate without the individual saying or doing anything. That is why one's identity as an African American can directly influence health and lifespan.

The U.S. is becoming more racially and ethnically diverse, but blacks in the U.S. largely remain materially disadvantaged and geographically segregated. Currently, the white median household income is just a little bit lower than the 75th percentile for blacks. Despite the fact that blacks account for 12% of the total population, they account for about 6% of the highest income bracket and about 20% of the lowest. In 1972, blacks were unemployed at twice the rate of whites; in 2003 the 2:1 ratio remained unchanged. Despite economic gains by other ethnic groups and whites in the 30 year period between 1974 and 2004, the same stubborn economic differences remain for blacks.

We recently completed a new, larger, collaborative survey in the same vein as the NSBA. This project, the National Survey of American Life (NSAL), was based on over 25 national regional studies that followed the NSBA, and was the first national sample of the Afro-Caribbean population and a non-Hispanic white population. The survey included over 6,000 adult face-to-face interviews, more than 80% of which involved African Americans and Afro-Caribbeans.

The general research questions were:

- What is the nature and distribution of black ethnicity in the U.S.?
- Why do Afro-Caribbeans enjoy better structural conditions of life than African-Americans?
- Are Afro-Caribbeans a "model minority?"
- What is the role of generation position and immigration on mental health outcomes?

After evaluating the social demographics of the NSAL sample using the RICE criteria discussed earlier, the differences between the groups were immediately apparent. We found:

- a lower and somewhat younger age structure among black Caribbeans.
- Caribbeans have more education on average than African Americans (almost as much as whites).
- Caribbeans' family income far exceeds that of African Americans; in fact, when it is adjusted it actually exceeds that of white American households.
- Caribbeans have a better gender ratio, and are more likely to be employed among the groups we evaluated.

We also found that SES is beginning to drive significant differences within the African American population. In the 1980 NSBA, we had a very difficult time finding any differences by socioeconomic status; we now find them all over the place. This is a significant change over the last 25 years or so.

When we asked about issues of identity, we discovered growing differences between those at the top and those at the bottom. Immigration and ancestry figure prominently in social class heterogeneity. U.S.-born Afro-Caribbeans tend to have higher incomes. Second generation Afro-Caribbeans fare better than both first and third generation economically, domestically, and in terms of health.

When we asked about perceptions of discrimination, we found differences within the groups. In this instance, race trumped black ethnicity to produce similar responses regarding racialized experiences among all black groups.

Ultimately, our studies lead us to conclude that research must focus more on the heterogeneity produced by race, ethnicity, class, gender, immigration, and other conditioners of life in any community we endeavor to study. Assumptions of homogeneity in research on ethnic/racial populations are no longer tenable, if they ever were. We must develop effective strategies for this society to make social and political changes for this, and the next, generation of black Americans. This strategy will not only benefit black Americans, but also will benefit the growing ethnic and racial populations of this country, and indeed, our society as whole.

Session II: Socioeconomic Status and Obesity among Blacks

Socioeconomic Status & Obesity: Racial, Gender & Age Disparities and Time Trends

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During the past three decades, the United States has witnessed a dramatic increase in the prevalence of obesity, which has become a public health crisis. A growing body of evidence indicates large disparities between population groups and continuing changes in the associated patterns. Several recent reviews attempted to describe the characteristics of the obesity epidemic in the United States while focusing on specific age groups (e.g., adults) and basing their analyses on selected data sets such as the National Health and Nutrition Examination Surveys (NHANES), without addressing all major characteristics of obesity.

Based on national data in the United States, this systematic review and meta-analysis aims to provide a comprehensive description of the current situation, time trends, and disparities across gender, age, socioeconomic status, and racial/ethnic groups and in geographic regions, as well as the manner in which disparities have changed over time. For some racial/ethnic groups, where no national data were available, we used other large, well-designed studies.

Information on self-reported weight and height has been widely used in epidemiologic studies, including some large, national monitoring survey programs such as the Behavioral Risk Factor Surveillance System (BRFSS). Although some studies have suggested good agreement between self-reported and measured weight and height, others show considerable reporting bias. For example, a recent study reported that, compared with NHANES (measured data); BRFSS (self-reported data) underestimated the overall prevalence of obesity and overweight in the United States by 9.5 percent and 5.7 percent for 1999–2000, respectively. The degree of underestimation varied across sociodemographic subgroups. Thus, it is likely that findings of the associations between these factors and obesity based on self-reported weight and height will be biased. Moreover, discrepancies in classifications may affect estimates of prevalence and trends in obesity among both adults and children. This study attempted to include only those findings that used comparable classifications based on direct anthropometric measures whenever possible.

Currently, more than two thirds of US adults and approximately one third of US children and adolescents are overweight or obese and some minority and low-SES groups are disproportionately affected. The prevalence of obesity and overweight among US children and adults has more than doubled since the 1970s, and the rate continues to rise. Numerous studies have shown that obesity increases morbidity and mortality. Obesity has become the second leading preventable cause of disease and death in the United States, second only to tobacco use. Obesity is likely to continue to increase and soon become the leading cause if no effective approaches to controlling it can be implemented.

Consistent with previous studies, our systematic analysis shows large racial/ethnic disparities in obesity among women, children, and adolescents in the United States. Some minority and low-SES groups such as non-Hispanic black women and children, Mexican-American women and children, low-SES black men and white women and children, Native Americans, and Pacific Islanders are disproportionately affected. On the other hand, some minority groups such as Asian Americans have a lower prevalence of obesity.

Of great concern, our analysis shows that the prevalence of obesity and overweight has increased at an average annual rate of approximately 0.3–0.8 percentage point across different sociodemographic groups over the past three decades. If a similar increase in trend is assumed, by 2015, the majority of US adults (75 percent: BMI ≧25 kg/m^2) and nearly a quarter (24 percent) of US children and adolescents are expected to be overweight or obese (95th percentile of BMI). Some population groups will be more seriously affected. For example, by 2015, 86.5 percent of non-Hispanic black women will be overweight or obese, and 62.5 percent will be obese. However, current available data are limited and do not enable us to examine the trends in other minority groups or to understand the factors that have led to the current obesity epidemic.

A good understanding of underlying causes that triggered the increase in obesity prevalence in the United States over the past three decades and the factors that have contributed to the disparities across groups is critical in fighting this growing public health crisis and achieving an important national priority to eliminate health disparities. Although obesity is caused by many factors, in most persons, weight gain results from a combination of excess calorie consumption and inadequate physical activity. To maintain a healthy weight, there must be a balance between energy consumption through dietary intake and energy expenditure through metabolic and physical activity. A number of individual-, population-, and international-level factors and environmental determinants might have played a role in the obesity trends, such as changes in people's eating behaviors, physical activity and inactivity patterns, occupation, development of technology, culture exchange, and global trade. The NHANES data show a dramatic increase in the prevalence of overweight and obesity across all population groups and a declining disparity of obesity across SES groups over the past two decades. This finding indicates that individual characteristics are not the dominant factor to which the rising obesity epidemic is ascribed. Social environmental factors might have a more profound effect in influencing individuals' body weight status than do individuals' characteristics such as SES. A growing consensus is that environmental factors have played a pivotal role in influencing people's lifestyles and fueling the obesity epidemic in the United States and worldwide. The environment in the United States has been characterized as "obesogenic" because of its promotion of high energy intake and low energy expenditure. The current society provides Americans with abundant food at a relatively low cost and numerous opportunities to reduce energy expenditure at work and at home, which facilitates sedentary behaviors.

Nationally representative survey data examining trends in people's eating patterns between 1970 and the 1990s have indicated several patterns likely to put people in the United States at increased risk of obesity, such as increased consumption of total energy, soft drinks, and snack foods; more frequent eating at fast-food and other restaurants; and inadequate consumption of vegetables and fruits compared with dietary recommendations. The increase in portion size in the United States over the past three decades probably is an important contributor to over consumption of food and has fueled the growing obesity epidemic. Examination of the current portions of food products against previous portions and dietary intake data collected from individuals consistently show that portion sizes have increased sharply in the United States.

Although our current understanding of the underlying complex causes of the disparities in obesity between population groups in the United States (e.g., gender, age, ethnicity, and SES groups) is still very limited, recent research has shed some important light on related factors at the individual, community, regional, and national levels. At the community level, disadvantage may constrain people's ability to acquire and maintain healthy diet and exercise behaviors. Differential rates of available local area physical fitness facilities, restaurants, and types of food stores by neighborhood characteristics may help explain why obesity does not affect all population groups equally. A recent study shows significant disparities in the availability of food stores. African American and Hispanic neighborhoods had fewer chain supermarkets compared with white and non-Hispanic neighborhoods, by about 50 percent and 70 percent, respectively. The availability of supermarkets has been associated with more healthful diets, higher vegetable and fruit consumption, and lower rates of obesity. Shopping at supermarkets versus independent groceries has been associated with more frequent vegetable and fruit consumption

The Add Health study shows that lower-SES and minority population groups had less access to physical activity facilities, which in turn was associated with decreased physical activity and increased overweight.

Population-based policies and programs that emphasize environmental changes are most likely to be successful. Strategies to tackle obesity need to be incorporated into other existing health promotion programs, particularly those preventing chronic diseases by promoting healthful eating and physical activity. Childhood and adolescence are key times for persons to form lifelong eating and physical activity habits. Overweight children are likely to remain obese as adults. Thus, obesity prevention in schoolchildren is a public health priority. In addition, because the majority of children spend many of their waking hours in schools, schools should be key partners in the prevention of childhood obesity. The large racial/ethnic differences in the prevalence of overweight and obesity suggest that culturally sensitive and appropriate approaches are needed in promoting healthful eating in fighting the obesity epidemic. It is crucial to tailor treatment and prevention efforts to each particular ethnicity group's specific situation and needs. Policy makers and public health workers need to be aware of racial/ethnic differences that may affect one's health behaviors and body weight status, such as the differences in their local communities, perceptions of body weight, food preparation, eating practices, physical activity and inactivity patterns, and child-feeding practices. Without developing effective strategies to modify the current obesogenic environment in the United States, it is likely that the obesity epidemic will continue. Government agencies, industry, public health professionals, and individual persons all need to play an active role in the growing national efforts to combat the obesity epidemic.

Main Findings Regarding SES Disparities in Obesity from Other Selected Studies

Some other studies published since the early 1990s have also examined the complex relation between gender, ethnicity, SES, and obesity among US adults and children. For example, earlier data collected in the CARDIA study from 5,115 black men and women and white men and women aged 18–30 years suggested that the association of education with obesity was negative among white women and positive among black men, with no significant association noted among white men and black women. The San Antonio Heart Study included Mexican Americans and concluded that among women, increased SES reduced the risk of obesity whereas, among men, those with a higher SES had a higher risk. Another study assessed the contribution of SES in explaining ethnic disparities in obesity among adult women; it concluded that black ethnicity was an independent SES risk factor for obesity. Similarly, another study based on a multiethnic sample in New York State as part of BRFSS came to the same conclusion. However, patterns of obesity were shown to differ by educational attainment within ethnic groups, which has implications for the segmentation of risk reduction programs. When whites were compared with Hispanics, a matched-pair design study found the highest prevalence of overweight among the least educated Hispanic women (61.1 percent) and Hispanic men (48.4 percent). In a multiple regression model, the higher body mass index levels of Hispanic women and men relative to their white counterparts were not explained by age, gender, education, city of residence, time of survey, or language spoken.

A study of cardiovascular disease risk factors, including obesity, based on several national surveys found that for men, the highest prevalence of obesity (29.2 percent) was in Mexican Americans who had completed a high school education. Black women with or without a high school education had a higher prevalence of obesity (47.3 percent) than other gender-ethnicity-SES groups. Another study showed that socioeconomic deprivation in childhood was a strong predictor of adulthood obesity in African American women, and the findings were consistent with both critical-period and cumulative-burden models of life-course socioeconomic deprivation and long-term risk for obesity.

Among young people, the 1995–1996 baseline data from the Add Health study show that overweight prevalence decreased with increasing SES among white females, and remained elevated and even increased among higher SES African American females. Thus, the African American-white disparity in overweight prevalence increased at the highest SES.

Conversely, disparity was lessened at the highest SES for white, Hispanic, and Asian females. Among males, disparity was lowest at the average SES level. The Growth and Health Study of the National Heart, Lung, and Blood Institute collected data from younger children (aged 9–10 years) and showed that higher-SES white girls had a lower prevalence of obesity, but there was no clear relation among black girls. Another study of a nationwide sample of preschool children drawn from 20 large US cities showed that the higher prevalence of obesity among Hispanics relative to blacks and whites was not explained by ethnic differences in maternal education, household income, or food security

As I showed you based on our group's analysis, we found that the association between SES and obesity varies by ethnicity, by gender, by age, and by country. However, based on data collected primarily in the United States and some other developed countries there is a change in association over time, in particular a weaker association. Multiple factors have contributed to the growing obesity epidemic in the United States and worldwide. Individual SES factors only play a relatively small role. Therefore vigorous, effective and sustainable national and regional policy and health programs are the focus. Healthy weight and lifestyle are needed to target all population groups in the United States.

Economic Contextual Factors and Racial Disparities in Obesity

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Much of my research involves looking at how policy instruments can affect health behaviors and related outcomes. With a number of public policy tools available to us, how might we change policy levers in order to have an influence on behavior in the context of public health? Economists are particularly interested in variables that relate to prices such as taxes or subsidies, and so we are interested in how food pricing or other prices may affect outcomes. However, we also think of availability as a cost because if you don't have a food store near you or you don't have a fitness facility near you there is a cost: time. So, economists tend to think of those notions as interchangeable. Lost time (opportunity cost) is just price in another form. So, let us examine these concepts in the context of healthy eating and physical activity and related weight outcomes. Specifically, let us focus on three principal questions:

- First, what is the evidence on the extent of racial disparities and the availability of food stores, restaurants, and physical activity outlets? Are there significant differences by race in availability?
- Second, do these potential differences and difference in food prices then explain part of the gap that we actually see in weight outcomes across races?
- Lastly, do African Americans and whites actually respond the same way to changes in food prices so that their price elasticity (the extent to which they respond to these prices) is similar? Or could it be that in addition to the fact that they face differences in availability or face differences in prices, they may also have differences in the extent to which they respond to these particular environmental factors?

Statistical Evidence

To begin, we examined outlet availability across the country as a whole and related it to the socioeconomic (SES) and racial composition of communities. We drew on food, restaurant and physical activity-related outlet data obtained from Dun & Bradstreet business lists. *(These data, however, are subject to potential count and classification errors, as are other sources. If others wish to replicate some of this research, perhaps Info USA or the Census Bureau might provide suitable alternatives to track the availability of different types of outlets.)* So with almost 30,000 zip codes in the country, we linked these data to the SES and racial, ethnic and population characteristics of the zip codes. What we want to know here then is (controlling for income and other zip code characteristics) are there differences in availability across race? *(One factor of which to take note: multivariate associations are more interesting, and yield deeper results. We've clearly seen that African Americans live disproportionately in lower income neighborhoods. If we examine two low income neighborhoods, is there lower availability in the African American low income neighborhood versus the white low income neighborhood? Without the multivariate context, one easily could confound these associations).*

One of the nice things about these data is that we were able to break apart the supermarkets by chain and non-chain. Literature shows that chain supermarkets vis-à-vis the non-chain have greater availability of fresh produce and lower prices. Our study results showed that compared to our reference category of white communities, African American communities only had half the number of available chain supermarkets. They had more grocery stores and non-chain supermarkets and the convenience stores were about the same.

With regard to restaurants, there have been some published studies that focus on particular geographic areas and neighborhoods that have found different results from ours. That is partly attributable to the fact that a specific type of neighborhood was examined. But what we have found here (similar to the larger geographic studies such as by Morland and colleagues) is that when you look across the country as a whole, African American neighborhoods have fewer full-service restaurants *and* fewer fast food

restaurants. This is contrary to some of the available literature that found more fast food restaurants.

African American communities are underserved in just about everything, including fast food restaurants. Looking at the relative availability of restaurants, African American neighborhoods have a significantly higher proportion of fast food restaurants among all available restaurants, but that only holds for urban areas.

Turning away from the nutrition side to the physical activity side for a moment, we looked at a variety of different types of physical fitness-related facilities. We quickly saw that (again, controlling for income, urbanicity, population, etc.) the availability in African American neighborhoods is substantially lower than their counterpart white neighborhoods. Compared to white communities, African American communities had significantly fewer of all facilities measured in our study which included physical fitness facilities, membership sports and recreation clubs, dance facilities and public golf courses. So, generally you can see that African American neighborhoods are underserved across a broad spectrum of facilities that would lead to enhanced physical activity, and potentially better nutrition through the availability of chain supermarkets. These studies were done within our Robert Wood Johnson Foundation funded ImpacTeen project.

As part of another project, funded by the USDA, we linked these contextual factors to individual-level data and have recently undertaken analyses being prepared for publication as part of a monograph on economic aspects of obesity by the National Bureau of Economic Research. In this particular study, we are focusing on children. We want to look at the relationship between economic contextual factors and child BMI percentiles. This could be done using just the raw BMI; we chose to use BMI percentile in order to get around issues related to the growth curve.

The idea here is to relate the prices of various food categories: healthy foods (such as fruits and vegetables) and unhealthy foods (those with high energy density such as fast food). Many studies have shown that the real cost of obtaining a calorie from energy-dense food is much cheaper than obtaining a calorie from less dense food. We want to discover whether this actually translates into differences in weight outcomes; that is, whether differences in the relative cost of energy dense versus less dense foods affect weight. We also want to examine the importance of outlet availability such as fast food restaurants, full service restaurants, supermarkets, convenience stores, grocery stores, controlling for a number of factors. (*With regard to controls, we take particular note of neighborhood characteristics: chief among them is median household income.) When examining the association between the availability of supermarkets, for example, it is important to control for neighborhood income because the availability of these facilities is directly related to neighborhood income. If you do not control for neighborhood income, it becomes nearly impossible in your regression to discern if you are simply picking up a relationship that is confounding neighborhood income, or if it really relates to the availability of supermarkets.

We use longitudinal data to model individual fixed effects. Thus, we are able to examine whether the cross-sectional estimates hold up when we control for individual fixed effects. We must consider whether the fact that you live in a neighborhood that has a lot of fast food restaurants is what is leading you to be overweight. Or, is it that you and your peers tend to like greasy foods, and the fast food restaurant owners have done their research and they know that and they have located there. And, if you weren't eating their food, you would be getting that type of food elsewhere. That is really what we are talking about - - unobserved heterogeneity, which is something that we can't really control for, and therefore we try to use the panel data to tease out whether or not there could be something causal going on and not merely an association.

For this particular study, we are using the Child Development Supplement of the Panel Study of Income Dynamics which includes data on children in 1997 with follow ups on the same children in 2003. The nice thing about this data set is that you are able to link to parental data to gather important information on household income and other parental characteristics which is often not available or is prone to error in surveys which use just child or adolescent reports.

The price data are drawn from the American Chamber of Commerce Research Association (ACCRA) data set.

From these data we create a fruit and vegetable price index, and a fast food price index. We also use the outlet density data mentioned earlier. Both the price and outlet data are linked to individual-level data by zip code identifiers. From our summary statistics, we see that over time 1) the kids move up in the BMI percentile distribution; 2) their overweight prevalence is going up; 3) they are facing higher real prices for fruits and vegetables; 4) they are facing lower real prices for fast food; and 5) there are more fast food restaurants.

Our study is able to control for a rich set of individual and family-level characteristics including, for example: 1) whether or not the mother is working, 2) differences in the parent's marital status, 3) education levels of the parents, 4) income, 5) whether they live in an urban or suburban area, 6) birth weight, 7) whether they were breast-fed. (*One of the things unfortunately not included is parents' weight. In the PSID, weight was collected for adults starting in 1999. We did not have parental weight information for 1997). If you can control for parents' weight, I can tell you from other work looking at just the 2003 panel, some of the effects fall for some of these contextual variables. By including the parents' weight, some of the unobserved heterogeneity can be taken into account.

So what do we find? Adjusting the standard errors for the fact that individuals are clustered in communities (zip codes), we find that in *both* the cross-sectional and individual fixed effects models, higher prices of fruits and vegetables have a statistically significant positive effect on children's BMI percentile. In elasticity terms, a 10% increase in the price of fruit and vegetables increases BMI percentile by 2.4%. Fast food prices and the availability of food-related outlets are not generally found to be related to children's weight outcomes for our full sample. Overall, these results are similar to findings by other researchers (Roland Sturm and Alicia Datar) who have used similar contextual data linked with a different data set with much younger children.

Racial Disparities

How does any of this relate to racial disparities? One approach to asses how the contextual factors explain differences in individual regressors is to estimate the model with all of our typical demographic controls only, and then to add the contextual variables. The results show that after controlling for the contextual economic factors, African American children are no longer statistically significantly heavier than their white counterparts and the magnitude of the difference in the BMI percentile gap falls by 30%. These results suggest that local area economic contextual factors explain part of the BMI gap between African American and white children.

Is there a difference in price responsiveness by race? The results show us that there really is not much difference, or none. For the African American population, the fruit and vegetable price elasticity of BMI is 0.25, for whites it is 0.20; these are not statistically different from each other. What is striking is that there are significant differences by income; lower income individuals are significantly more price sensitive compared to higher income individuals. This is not surprising since food costs make up a higher share of your total budget when your income is low. Higher fruit and vegetable prices (*in both the cross-sectional and longitudinal models*) and lower fast food prices (*based on the cross-sectional model only*) are significantly associated with higher BMI among low income children. So what these results suggest is that subsidies to healthier foods may help to reduce children's BMI, particularly among low income families. In addition, the results from the cross-sectional models suggest that taxes on fast food also may improve low income children's weight outcomes. *(*Here, it could be argued that a tax would have a negative impact in terms of regressively. However, there would also be associated benefits from improved health among the low-income population. In addition, subsidies to healthy products such as fruits and vegetables would help to offset the regressive nature of food taxes.)*

Overall, our study results have shown significant differences in availability of food stores and physical fitness facilities by neighborhood racial composition even after controlling for income. Further, linking our contextual data to individual-level data, we have found that differences in food prices and outlet availability explain part of the BMI gap between African American and white children. Policies that make healthier food more affordable and accessible are likely to help reduce racial disparities in health.

When is Advantage an Advantage? Future Directions in the Study of SES and Obesity among Blacks

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My goals here are 1) to provide a broad overview, with particular attention paid to the notion of the reverse socioeconomic gradient that has been observed in some black populations; and 2) to suggest some admittedly presumptuous directions for future research.

There has been a lot of discussion about the directions of associations and the magnitudes of associations. Let me just say that this is an important issue primarily because so many of our intervention solutions, both behavioral and policy, are basically grounded on the notion that we should see an inverse association between SES and obesity. And when we don't find that association I think we have to sit with it, try to understand what is behind it, and then try and identify whether or not we should be making modifications to our proposed interventions.

Most of our work over the last 20 years has been focused on studying differences. And the study by Lewis describes this quite nicely, and really very simply. You see an expected inverse association, that is, higher levels of education being associated with lower levels of BMI, among white women, but you see no such association among black women. I think this describes the picture quite nicely and says a couple of things. One, you see that the magnitude of the socioeconomic inequalities are much greater for white women than they are for black women. This notion really characterizes this whole line of research, and is something to keep in the back of your mind. Moreover, there really is no defined gradient among black women, and that is something we are going to find increasingly as we go on.

I think another other big challenge in this is that there are so many methodological complexities to the study of SES in general, particularly the study of how SES interacts with race to predict any health outcome. You almost have to stipulate at some level early on, that methodological complications in this work really limit the interpretations that we can draw from them.

If we all agree on this at the outset it becomes a little bit easier to try to sort through some of the data. But, it is important to note here one of the fundamental problems with studying SES and race: fundamentally SES is non-commensurate by race. That is to say, there is really no way to say that at the same level of education you find higher levels of obesity among black women than you do among white women. There really is no same level of education. Given that income returns based on level of education vary by race, residential locations vary based on education and they differ dramatically. So there are some pretty significant challenges here and I think that really speaks to why we need to focus more on within group socioeconomic variation. Ultimately, I think that focus gives us our greatest chance to really understand what is going on and to parse out the real nature of the association between SES and obesity.

The other reason for focusing on within group socioeconomic variation is that we have significant within group socioeconomic variation. We can stipulate here that we have not come as far as we would like with respect to upward socioeconomic mobility in the black community. Nevertheless, over the past 40 years we have seen marked increases in upward socioeconomic mobility such that now poverty rates have declined significantly. At this point most blacks would be defined as middle class, depending on the definition chosen. There still exist many challenges with respect to educational attainment; nevertheless, a high percentage of the black population is comprised of high school graduates. If we look at income rates, we should begin by noting that all notions of the nuclear family are fundamentally challenged with respect to black families. We have to recognize that there are multiple types of family structures to consider, and there are associated socioeconomic consequences depending on those family structures.

Nevertheless, for married black families, we see that well over 50 percent have household incomes of $50,000 or more with greater than a quarter with household family incomes of over $75,000. This fact speaks to the diversity that we see, but I have chosen to focus my work on blacks at the lowest ends of the socioeconomic spectrum. I have done that in my intervention research mostly because I perceive them to have the most need. That has certainly been reflected in the literature.

If we look at studies, particularly those studies that collected data in the late '80s through the early part of the '90s, we tend to see an inverse association primarily limited to black women. This is reflected nicely in the Black Women's Health Study, one of the largest black cohorts that are currently being studied. If you look at the BMI means, you can see effectively that with increasing education you have decreasing levels of BMI. Now, let me note here that this association is a very low magnitude; the association between SES and obesity is very small and you can see that reflected here. Nevertheless, given the large numbers, this is a significant inverse association.

There is significant lag time between the time data are collected, and the time that we ultimately publish them. That lag time depends on lots of things, but can range from 5 to 15 years. That is a real challenge when we try to interpret these findings because many of the studies we are looking at collected data right before we saw the steepest upward slopes in the obesity epidemic, the late '80s early '90s period. It is not clear what we would expect to see now. There are, however, some hints of what we might expect and I will return to them later.

We have seen this positive socioeconomic gradient in several studies now but particularly for black men. So again, with increasing SES you see higher levels of obesity or BMI. This is reflected nicely in the work that has been done, really now a couple of very well done studies, and this shows essentially two trends. These data were collected '87 through '89, that late '80s period right before the real steep slopes in the obesity epidemic, and you see an inverse association for black women and a positive association for black men. Note that that positive association for black men is not a huge association, it is not of a significant magnitude, but nevertheless, it is heading in that direction.

The same trend appears with respect to income: the same inverse for black women, positive for black men. Look at the impact of neighborhood SES (adjusting for individual SES on BMI outcomes) and note that for black women, you see exactly the same trend.

When you look at this composite SES variable that encapsulates neighborhood socioeconomic standing with increasing neighborhood SES, you see a decrease in BMI. Importantly, these were adjusted for individual levels of SES. So this is the effect of the neighborhood above and beyond your individual socioeconomic attainment. You see no association whatsoever for black men. I think there are a number of potential questions here deserving of future research; particularly it's important to examine what is going on with black men. It appears that black men are resilient against the effects of negative adverse neighborhood socioeconomic exposures. I think more work is necessary in this area.

There certainly has been a great explosion of research into neighborhood SES in the last couple of years and a lot of cohorts where we could further investigate these kinds of things. For example, rather than adjusting for individual SES, we might look at the interaction between neighborhood SES and individual SES. You have this phenomenon that occurs particularly in major metropolitan areas, where the areas that are considered to be the least desirable with respect to socioeconomic level are often the areas where you have a high number or small pockets of black affluence. Certainly, this holds true for the Boston area. Roxbury, MA is considered one of the most disadvantaged neighborhoods in the city of Boston. It also happens to be the area where you have a higher proportion of black professionals and it is not clear in the evidence that we have seen just far what that means either for the high SES blacks or for the neighborhood as a whole. I think that is an important area for us to tease out some more.

We now move to nationally representative data to look at the concentration index which is a summary score that reflects the degree of income inequalities in obesity and is quite illustrative. Again, this was 1998 to 2004 and what you see are positive associations between income and obesity for black men, with a negative trend for black women.

Again, the magnitude of SES inequalities is smaller for blacks. So, we are beginning to see a pattern. I think that is the other strategy for looking at this. These data are not formally longitudinal, but you can look at repeated cross sectional assessments. So again for our non-researcher colleagues, NHANES is a nationally representative study that collects a variety of health indicators including measured weight. We think of this as a very good and reliable strategy for measuring weight related outcomes, and it has been conducted in various iterations over the last 30 years. As you look at the most recent NHANES assessment, you can immediately see that there is an effect for time. At the most recent assessment you see a much higher magnitude of association. I should note that on the horizontal axis you have that poverty to income ratio, which is a measure of your income against the poverty threshold. So higher scores reflect higher income, and lower scores reflect incomes that are at or under the poverty threshold. Effectively, what you see for white men and white women is the expected inverse association, somewhat flat for white men. You see almost the same thing in some respects for black women. Note, however, that there is a much higher magnitude of obesity in the population. But for black men you see this positive association, with increasing income you see increasing levels of BMI. I think we really need to figure out what is going on there.

So in summary, what we have seen, particularly for these studies conducted in the late '80s through the '90s, SES is most often negatively associated with obesity for black women, positively and some null relations for black men. This is very consistent with the notion of declining returns which is the idea that with increasing SES among the black community, you may not garner the same benefits, the same kinds of returns on higher SES as do whites. What about weight change? There is some question as to whether or not you should expect the same patterns for weight gain over time, particularly weight gain during the period of the obesity epidemic. We can look at other work done, and what was found after five years of follow-up. (*Note that the end of their follow-up period is right before the steepest slope of the obesity epidemic.) What they found are positive associations between SES and BMI change, now among black women, so black women seem to have lower levels. If we think of '88-'92 as a baseline level, then we see negative associations at that time, and then what you are finding is that at the beginning of the obesity epidemic black women in higher SES groups are catching up. And we see this positive (though non-significant) trend for black men. This is exactly what we saw in the Pitt County study, which is a cohort of around 2000 blacks in eastern North Carolina. This study has follow-ups from 1988 through 2001, and during that 13-year period we found that the greatest amount of weight gain was accounted for by black women with the highest levels of education, and you see that reflected here. So again during that period of the obesity epidemic black women at the highest level of education are catching up.

What about weight change over the life course? One of our challenges is that we have very few studies with longitudinal designs. Certainly longitudinal studies would help us with demonstrating causality. I think some of you who don't work in this area might find it surprising that economists and some social epidemiologists still quibble about whether or not there are causal associations between SES and a range of health outcomes; obviously longitudinal studies would help us there.

The other thing is that it might help us to identify when there are critical periods. Are there important times during the life course where SES may exact a particularly deleterious toll? My colleague, Sherman James at Duke, was interested in looking at this issue and so in the Pitt County study cohort he used a software program that helps people to remember the kinds of events that occurred during their childhood, called an events history calendar. From that he created a measure of childhood socioeconomic position and found a two times greater impact of low childhood socioeconomic position relative to high, in predicting obesity outcomes in 1988. You also see an effect of low SES predicting about a quarter more likelihood of being obese in 1988. Then we created four of these life course socioeconomic mobility trajectories; low/low meaning you start out low in childhood and stay low in adulthood, low/high meaning that you gain in SES in adulthood, high/low, and then high/high. Basically, the interpretation here is that there is something important about low childhood SES that seems to predict the likelihood of obesity in adulthood above and beyond what kinds of socioeconomic gains you make later in life. We were interested in whether the same phenomenon would present itself if we looked at a broader range of childhood contextual factors.

So if we didn't just look at childhood SES, but we also looked at things like, did you have plumbing when you were a kid? Did you have electricity when you were a kid? Were you on public assistance when you were a child? We also looked at a range of childhood socioeconomic exposures. We looked at adulthood socioeconomic exposures and these life course trajectories, and we found nothing for men. No impact of any of these factors predicting the likelihood of becoming obese in 1988, or developing weight gain over the 13 year period from 1988 to 2001, nothing for men. But we did find significantly greater 13-year weight change. Again, from 1988 straight through the obesity epidemic, through 2001, significantly greater 13-year BMI change for black women with high childhood SES, black women college graduates, black women who have white collar occupations, which is really saying something in eastern North Carolina at the time, and black women who were high/high versus that low/low socioeconomic status. So there is something important about high SES that is causing black women during this period of time essentially to catch up, gaining much more weight. They are really taking full advantage, so to speak, of the obesity epidemic. At baseline in 1988, there is a significant difference between those that are the high/highs, started out high in childhood, stayed high in adulthood, and the low/lows; but, by the time you get to 2001 there are no discernible differences whatsoever.

There is something important about these childhood exposures for early life risk and age. Age is incredibly important to think about. Because there is something important about adverse childhood experiences, particularly for this age cohort, who are mostly in middle age, they were between 35 and 55, at the baseline collection in 1988. I am not sure whether we can say the same about childhood exposures today. In fact, what we are seeing in children is essentially the same pattern of high SES predicting higher rates of overweight among our children, which I think is a particularly disturbing finding. Again, on the horizontal axis you have this poverty to income ratio, and if you just focus on the line that reflects blacks which you can see is an upward slope, a positive association of higher levels of income and higher levels of BMI.

To summarize:

- The SES / obesity relation is incredibly complex. It varies by cohort, study, secular trends, and SES measures, gender…a range of things. But if we lay out all of the findings we can make sense of them.
- Black men show positive and null SES associations.
- Black women have negative associations, but high SES black women may be gaining at a higher rate than their lower SES counterparts.
- The magnitude of the SES obesity association is smaller for blacks than for whites.

So what could be driving this positive SES obesity relation? Here are some more of my admittedly presumptuous future research directions:

- Do we need to look internationally for parallels? You see these same kinds of traditions in the developing world. Certainly we would imagine that in the United States context, as in most developing nations, higher SES is associated with a range of things, not least of which are cultural norms that value thinness and value healthful eating and physical activity.

- Why are we not seeing that same pattern among blacks who extensively live in developed nations? In fact, we are finding much more of a developing world kind of phenomenon where you find the highest rates of obesity really go to those people who can take advantage of obesogenic environments.

- Are we finding that there is some greater uptake of obesogenic environments? Certainly having more material resources or financial resources affords you the opportunity to do that. Is that what we are seeing? Possibly, but if that were the case why is it that we continue to see inverse associations, very strong inverse associations within the black community with respect to dietary and physical activity outcomes.

Nearly every study that has looked at this has shown inverse associations between SES and a variety of physical activity outcomes, and SES and a variety of eating outcomes, sugar-sweetened beverage consumption, fast food consumption and the like. So we need to investigate this more to try to reconcile those seemingly discrepant findings.

Sociocultural factors, of course, have an impact. We have spent a lot of time talking about these over the years, but not with respect to men. And I think we need to do a lot more to try to understand how some of these sociocultural factors may be differentially impacting men. We don't know about how the social etiology of obesity differs by SES. We talked for a long time about the idea of different body size preferences, preferences for weight loss, value placed on thinness, body image differences and how these may differ by race, but what we haven't really done yet is to look within the black community to see what the trajectories of change are in the beliefs and adoptions of those sociocultural factors by SES. We are seeing some new evidence to suggest that this might be changing among children. I also think it is important that we characterize some of these seemingly unique sociocultural influences among blacks; things like John Henryism, a culturally specific coping style. I also think this "rest ethic" notion (an intentional prioritization of rest over exercise because of its perceived health promoting benefits) is unfortunately overlooked, when it potentially has so much explanatory power. Put another way, at the end of a long day when you are busy and you are tired, many in our culture would choose to rest. Many of our mothers told us to go take a nap as opposed to going out to exercise. This concept has fundamental implications for rates of physical activity and a range of other healthful behaviors in the black community. We need to spend more time investigating those things.

Regarding chronic impacts of psychosocial factors--is it that high SES blacks are experiencing more stress from discrimination and is that stress associated with a range of weight related outcomes? The association between stress and obesity is anecdotally one of the most talked-about, but there is very limited empirical evidence. Stronger laboratory evidence of an association exists now than in a very long time, but we haven't studied this and I think the appropriate population to look at this is in black populations. We have to think about things like social isolation, particularly in the workplace. What does it mean for your health for you to be the only black woman in your office?

What might very well be happening is that obesity is just so highly generalized in the black community that SES exerts a very, very small toll. In fact, I must mention what Shiriki Kumanyika, wrote in a paper about 20 years ago, saying very clearly that SES may have less association with obesity related outcomes than some of the other factors discussed earlier. I think we are finding support for that notion and it really requires us to then ask the next question. Well if it is not SES, then what is it? And what can we do to better identify these factors, and importantly what are the implications for intervention?

The amount of variance, the magnitude of variance associated with SES and obesity is very, very small with the exception of black men. On the whole it is still very small and so this really suggests that we need to do a better job looking into some alternative factors here.

Finally, middle and high SES blacks are also at high obesity risk, although I don't mean to suggest that low SES blacks are not at increased obesity risk; that is certainly not my intention. What I would like to suggest is that middle and higher SES blacks are also at risk, in fact, the entire black community is at risk and so it requires attention to the entire population. We must consider the impact of these findings for our intervention solutions. If you are like me, almost all of my intervention research is conducted in lower income populations and I don't have the slightest idea about how to transfer it to the higher SES black population. I think very few of us do and we have to think about what it means for our messaging and for our recommendations to be working in higher SES and more advantaged samples. Finally, we have to study within group socioeconomic variation. I will just reinforce what has been said over and over. We are possibly looking at a black president whose experience really reflects the growing socioeconomic and cultural diversity in our community. I think it is important that we understand that diversity more broadly.

Health Disparities: Definitions and Concepts

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Will Disparities Always Be with Us?

I often meet scholars who list health disparities among their interests, but they often have difficulty providing a clear answer when I ask them to define what they mean by disparities and to share with me how they will direct their research efforts to ensure that they have an impact on disparities. If we are going to impact health disparities, we must be more thoughtful about what this actually means and what types of research will or will not change health disparities. Some of my reflections on this issue follow.

W.E.B. Dubois wrote[1], *"One thing of course we must expect to find, and that is a much higher death rate at present among Negroes than among whites: this is one measure of the difference in their social advancement."* More than 100 years later, I am astounded at the clarity of his insight, which was based on a study of the living conditions of black people relative to whites. What troubles me about this particular quotation is the implication that we expect the health of African Americans to be worse than the health of whites. When we talk about health disparities we are challenging that expectation, saying that is it is not a given. To state that you are going to eliminate health disparities means that you are going to discover and address the causes at the root of the expectation of poorer health that Dubois could see in the late 19th century and that we can still today. As yet we have not made much progress in reducing disparities. I hope that 100 years from now, we are not still talking about these same disparities.

The Politics of Disparities

I link the efforts to eliminate health disparities to some of the sensitivities that were created with the civil rights movement. When we identified that the death rates of black people were systematically higher, during the civil rights era, a minority health movement arose around efforts to reduce these disparities and especially to clarify the limited role played, if any, by genetic factors as opposed to effects of social disadvantage. Poor health of African Americans was viewed by some as a form of genocide. In this sense African American health has always been a political issue.

In 1985, the Secretary of Health and Human Services under the Reagan administration, Margaret Heckler, released a report by the Task Force on Black and Minority Health[2]. At the press conference, by my recollection, Secretary Heckler essentially stated that if minorities would simply change their behavior, they wouldn't have any more "excess" health problems. It was then that I noticed the implication that disparities could be framed as failings of individual behavior. The themes of the Task Force on Minority Health report (which had several volumes on different conditions and different minority groups) were 1) that there were notable differences in the number of deaths observed in minority populations compared to the number that would have been expected if the minority population had the same death rates as non-minorities, termed "excess deaths", and 2) that there was some obligation to reduce those excess deaths. I then expected a social justice message to come from the conclusions reached by the Task Force, i.e., pointing to the role of social disadvantage in creating the excess deaths. But at the press conference Secretary Heckler pointed to a lengthy list of modifiable risk behaviors and talked very much in terms of individual behavior modification.

If you look at the Task Force report you can find a bit of lip service paid to the need for environmental context changes. We have since changed the language about health disparities to emphasize environmental change.

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[1] W.E.B. DuBois, The Philadelphia Negro, A Social Study, originally published in 1899, University of Pennsylvania Press; page 148 of 1996 edition

[2] Centers for Disease Control. (1986). Perspectives in disease prevention and health promotion report of the Secretary's Task Force on Black and Minority Health. Morbidity and Mortality Weekly Report, 35(8), 109-112.

This is partly because the individually-oriented behavioral risk factor approach has not worked despite the efforts of people who would like the focus to remain there. We rediscovered the disparities again around 1998 under the Clinton Initiative on Race. The same conditions existed (disparities in infant mortality, cardiovascular disease, etc.) that were mentioned in the earlier Task Force Report. In May 2000, the National Institute of Health Record (the in-house NIH newspaper) reported that, again, some disturbing trends had surfaced in the nation's health[3]. W.E.B. Dubois found those disturbing trends back in 1899, and we found them again in 1985 and 2000. Are we going to find these disturbing trends again in 2050?

So, clearly, it is possible to talk (and talk, and talk) about disparities, and never actually do anything about them. I hope that, here, we can reflect on what we actually have to do differently.

Health disparities are defined in the United States primarily by racial and ethnic categories. The categories used are those that identify "populations of color" (e.g., African Americans, Hispanics or Latinos, American Indians and Alaska Natives, Asian Americans and Pacific Islanders) even though there are other ethnic groups. This is a marked contrast from the European use of socioeconomic status to define disparity populations more so than racial/ethnic categories, despite the presence of diverse ethnic groups. In the United States we frame disparities mostly in terms of race and ethnicity. These terms can signify a lot of different things, and do not necessarily reflect genetic/biological differences, which may help identify race but are not necessarily the pathway for the problem of interest. U.S. "racial" categories also identify minority status; what the identified groups have in common is that they are numerical minorities of political interest. This leads to an almost unlimited set of alterative explanations for differences that are due to 'race' or 'minority' status. In addition, very soon, minorities in the U.S. will be the majority of the population so the terminology "minorities" will cease to make sense. What will we be called once we are not really the minority anymore? We will still have disadvantages. Look at South Africa and other places where the minority—the numerical minority—was the ruling power, but the "minority health" issues were those of the African people who were the numerical but not political majority.

Relative Differences or Poor Absolute Health?

There are many different ways that we talk about disparities issues. They can be disparities relative to another group (e.g. the white population), can refer to poor health in the absolute sense, or can refer to poor health of population groups from a societal responsibility versus individual perspective. Disparities can be counted in terms of excess deaths, as measures of health status, or as disparities in health care. The second part of the word "disparity" is "parity"; so we are really talking about parity, or equality. A lot of people define disparities as "differences," and they hesitate when I ask "What kind of differences?" or what it is about these differences that make us look at them. There are some differences that are not disparities. *So what is underneath?* Well, of course it is that there is some implied injustice being done to the group that has been historically disadvantaged. These are the differences that we are interested in. The presence of inequity brings social justice into the discussion; at that point, health issues become political issues and the inevitable debate between social responsibility and personal responsibility begins anew. Unfortunately, many scientists abhor the idea of their work being politicized, and are reluctant to embrace alternative approaches that bear the scent of politics.

The focus on disparities relative to another group takes the emphasis off of absolute health. With the relative focus, for example, one could observe a condition of equally bad health—but there would be no disparity. Put another way, without including absolute health, we could erase the disparity and not actually improve minority health. I first became aware of this when someone suggested—facetiously—that one could erase the disparity by simply worsening the health of whites. I suddenly realized that we are talking about two distinct ideas: improving the health of the population, and removing the disparity. The two notions cannot be uncoupled; otherwise you could end up with a sinking tide that lowers everyone's boat, so to speak.

[3] http://www.scienceblog.com/community

Focus on Populations or on Diseases and Deaths?

Another aspect of how health disparities are characterized relates to the social ecological model and whether one focuses on people and the conditions in which they live, or only on diseases or deaths. For example, the National Center for Health Statistics model for what needs to be measured to adequately assess population health includes the broader context (natural environment, political and cultural influences); community attributes such as the built environment, economic resources, social influences, health services and population based health programs, as well as biological characteristics and behaviors[4]. If you substitute 'excess deaths' for 'population health' in the model (i.e., use a narrow, disease-focused approach), you would de-emphasize all of the contextual variables and focus primarily on the biological characteristics, health services, and lifestyle practices. To include context, the focus must be on population health, not on disease or death as such. Another problem with the disease focus is that it leads to a very narrow framing of the pathways of causes and potential solutions. It obscures sets of linked factors in the population that lead to a set of related conditions. A population approach keeps the context, and it promotes understanding of the bigger picture. However, as we have discussed in detail elsewhere,[5] a disadvantage of the population health approach is that, if you take it to its logical conclusion, it means "let's just change the whole world" and may seem impractical or overwhelming.

Finding Solutions—What Tools and Research Methods Are Available to Address Disparities?

If we are going to study disparities, we need to be very clear about how we think they arose, as their origins may provide insights on how to resolve them. Of use in this respect is an article by Dressler in the Annual Review of Anthropology that summarizes very nicely the various theories about why we have different disparities: the racial-genetic model; the health-behavior model; the socioeconomic status model; the psychosocial stress model; and the structural-constructivist model.[6] The latter model emphasizes the intersection of racially-stratified social structures with the cultural construction of routine goals and aspirations. The racial genetic model is the one that many of us are trying to get away from. The health behavior model is important, but can be overemphasized. Socioeconomic status pathways don't explain as much of obesity as we once thought. I think a lot of what we are talking about in advocating for environment and policy changes is best linked to a structural-constructivist model that emphasizes not just the social structure, but also the individual's interaction with the social structure and how it plays on and plays into cultural ideals, goals and expectations.

These days I spend a lot of time thinking about marketing. Marketing has four Ps: *product*, *price*, *place* and *promotion*. In linking causes to solutions, and in light of our examination of physical, social, and virtual environments, I modified the four Ps as a way of thinking about what kinds of solutions could be put into place. We can focus on *policies*, we can work on *processes* and *programs*, and we can change *places*. And, if we are going to do disparities-related minority health research, we will likely touch on these areas. A few examples of the kinds of policies that people have been talking about include: regulations to put constraints on marketing (e.g., legislative prohibition of fast-food restaurants); curbs on targeted marketing—to address the disproportionate advertising and distribution of less healthful foods and beverages in African American communities; and other policies that change communities in ways that improve food access and options for being physically active.

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[4] Friedman DJ, Hunter EL, Parrish RG. Shaping a Vision of Health Statistics for the 21st Century. Washington, DC: Department of Health and Human Services Data Council, Centers for Disease Control and Prevention, National Center for Health Statistics, and National Committee on Vital and Health Statistics, 2002. (Accessed on February 5, 2004 at: http://www.ncvhs.hhs.gov/21st%20final%20report.pdf)

[5] Kumanyika SK, Morssink CB. Bridging domains in efforts to reduce disparities in health and health care. Health Educ Behav. 2006;33(4):440-58.

[6] Dressler WW, Oths KS, Gravlee CC. Race and ethnicity in public health research. Models to explain health disparities. Annu Rev Anthropol 2003; 34:231-52

These all are things that take know-how and political clout but also are a part of the solutions to disparities. Change strategies include those that are individually-oriented (for example, training people to resist the environment or to be more sophisticated in the way they evaluate the environment; media literacy training to help people to defend themselves against advertising; walking clubs or other strategies that create new ways of interacting within the environment) as well as strategies that focus on place-based interventions to directly change the environment.

Focusing on race and race-related disparities has some tradeoffs. We need to be very careful that we frame disparities in a way that is going to help us to reduce and to eliminate them. We must not reinforce the notion that disparities exist because of personal defects. We must recognize diversity in all of its many forms. We need theoretical pathways. Finally, we need to be able to measure outcomes of approaches that come from these new ways of thinking and new ways of looking at things. These are the new frontiers of disparities work. Hopefully, our workshop discussion will inspire new creative energy about what we actually have to do differently to eliminate disparities.

Session III: Obesity and Obesity-Related Disparities across the Life Course

One Size Doesn't Fit All: Within Group Differences in Children and Adolescents

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My primary area of interest is childhood obesity prevention, particularly as it relates to African American children. My goal in this talk is to expand on the issues about within-group differences in the African American community around children and adolescents. Quite frankly, what I present to you is probably more likely to elicit questions than it will provide answers; many of these questions have not been asked in such a way that we can have confidence in the answers that we have. So, bear with me as I present a little bit about what we do know and encourage you to think about how we can all work together to answer the questions that have yet to be addressed.

Contrary to what you might have been told, we [African Americans] don't all look alike, we don't all sound, not all of us know how to dance, and not all of us know how to play basketball. The idea here is that there is diversity within our population, and that is something that we should value. It is also something that we should keep in mind as we are conducting our research as well as interpreting our findings.

So, as we discuss African American children, let us first talk about what we might know already, starting with gender differences. As we look at NHANES data for the black population dating from 1976 through 2004, we notice that among each of these different groups there has been an increase in the rates of obesity, but we also notice that there are some differences:

- Girls and boys don't seem to be increasing at the same rate.
- Younger black girls have higher rates of obesity than their male counterparts. The same is true of older adolescent African Americans girls.

Again, there seems to be both gender differences and differences in how the increase is occurring over time.

These next data look at primarily high school students and their dietary behavior. So another striking thing we see, contrary to what we usually hear about, is that girls are actually at a disadvantage when it comes to eating recommended amounts of fruits and vegetables; so there is some advantage here for African American or black boys. Looking at physical activity, again we see that there are some differences between girls and boys; African American boys are more likely to engage in recommended levels of physical activity. But this data set (as well as the previous data on dietary behaviors) also points out that none of them are doing great. Even at these levels, there are some differences within these groups.

Why might we see these differences, particularly in physical activity? The Ries study looked at adolescents' perceptions of environmental influences on physical activity. For African American girls, you can see from these data that among the top three items of importance to physical activity, two relate to danger in their environments, thereby making it less likely that females will engage in physical activity. On the other hand, for young African American males findings suggest it was more important whether there were places for physical activity, as well as whether they had people with whom to connect when they engaged in physical activity. So, if we only look at very basic elements of the environment and think about what our interventions might be or how we might interpret the data, we can see that there may be very different ways in which we might develop our interventions.

As well as how we might frame our findings if we had this additional contextual information.

Additionally, for black girls ages 10-18, the issue of whether socioeconomic status is protective or gives some type of advantage is still in question. We clearly see from these data that there is an inverse relationship in terms of socioeconomic status for adolescent girls and rates of obesity, but that is not true (or doesn't appear to be true) for black boys. Moreover, the effect appears to be more pronounced for adolescent girls, but less apparent in the case of younger children.

Let us look at socioeconomic differences a bit more closely. When we examine NHANES data concerning black adolescents, age 12-14, by poverty or poverty ratio, in the time period from 1976 through 1980, there seems to be a statistically significant difference between individuals who were considered to be 'not poor' as it related to the poverty ratio, versus individuals who were classified as 'poor'. The advantage was that people who were 'not poor' tended to have lower rates of obesity. A lower percentage of individuals were classified as being obese. One of the interesting things is that at the next time point, 1988-1994, things seemed to be reversed. The advantage rested with whether you were 'poor'; there was a lower prevalence of overweight if you were in the 'poor' category versus 'not poor'. The trend appears to remain the same with the most recent data, though at the last time point it was not statistically significant.

With that in mind, we see a different picture when we examine NHANES for 15-17 year olds. In the beginning, we saw that 'not poor' from the early 1976 data had the highest rates or the greater risk factors; then we saw a statistically significant difference in the next time period which reflected what we would have expected – 'poor' individuals having greater rates than 'not poor'. Then it starts to change, in that we see an increasing rate of overweight but still at that last time point, the two numbers are not statistically significantly different.

These two observations, in particular, show that there are lots of things happening, not only in terms of gender issues and poverty issues, but also in time periods. So, it might seem that depending on the day of the week or the year, we might actually see different results.

Sometimes, when we reduce the scope to just black and white, we don't look at these other segments and we don't add the context. Consequently, we may not be getting all of the answers that we really need.

We pulled data from Gordon-Larsen and the group from UNC just to look again at African American adolescents by gender, and again some of the same questions came up: *How is family income protective or not in terms of obesity prevalence for adolescents?*

We see that, for males, there is not a lot of difference by family income. However, there may be some trends towards girls from households at both the lower end as well as the higher end having higher prevalence of overweight. Using the same data set, but this time looking at parental education -- and again, familiar questions arise: *Is it income? Is it education? What do we find consistently?*

What we found (at least in this sample) was that for female African American adolescents, having a parental education less than high school was going to be a high risk factor for females, but not necessarily for males. Again, that begs the question: *When we are looking at some of these data, is it more important to group girls and boys together or income groups together*? There may be real reasons for us to move those segments apart and look at them quite separately.

Let us return again to the Gordon-Larsen findings, where they tried to predict obesity prevalence by categories and to use some of these coefficients to posit: *What do we find if we level the playing field and look at these different categories of low income and no high school education versus middle income and no high school education, and middle income and having high school education?*

What is it that we think we can predict in terms of overweight or obesity prevalence in these groups? What we can see is that there are some differences by gender, as well as a common theme about whether the socioeconomic status variables are in fact protective.

Let us turn to geographic residence. There are a number of states in which African Americans have the highest prevalence of overweight and obesity.

I and a few colleagues here happen to live in Alabama, one of those states where blacks are tipping the scales. So, I thought it might be interesting to take a look at what we know about geographic residence and obesity among black youth.

So, looking at data from the state of Georgia, among 4th, 8th and 11th graders, we see (not surprisingly) that being a non-Hispanic black is associated with a 2.54 odds ratio of being overweight. This study characterized geographic residence as suburban, urban, rural growth, and rural decline (Lewis etal, 2006). They weren't segmented by race and ethnicity, but we could see from the available data, that in general, children living in a rural area had an increased risk of being overweight.

Using data from Margellos-Anast, a study that looked at the prevalence of obesity among kids 2-12 years old in six Chicago communities, residence was coded in four categories of ethnicity: ethnically mixed, predominately African American, predominately non-Hispanic white, and predominately Mexican-American. We see that the lowest prevalence of overweight and obesity was among individuals that resided in the predominantly non-Hispanic white community. We also see the typical prevalence: each of the other communities (except one) exceeds the national rate of overweight for that age group.

Hopefully, presenting a little bit about what we don't know will help us to appreciate what we need to do in the future. We need to do a better job of studying variation among or within African Americans, and that variation includes:

- Looking at gender differences
- Differences in socioeconomic status at the individual level
- Neighborhood socioeconomic status and neighborhood links to individual behaviors or obesity status
- School resources / socioeconomic status of the schools and the links to youth physical activity and dietary behaviors
- Racial and ethnic identification and the issues of colorism. *How much do you identify with blackness? What happens if you move up economically, but your definition of black is still very similar to when you were impoverished? What effect does racial identity have on eating behaviors and obesity?*
- Family characteristics: *Does family composition make a difference? How might it make a difference if your family is comprised of a single head of household or whether the head of household is male or female?*

So then, what are some of the potential solutions to answer the questions, or to getting the data that we need? Obviously, improved surveillance data on African Americans and black children and adolescents having both objective measures about adiposity, diet and physical activity, as well as culturally relevant measures of SES will help. In addition, we have to have sufficient sample sizes to better quantify the issues. We need to be more mindful of our recruitment strategies so that we get the samples that we need to answer relevant questions. We all are here because we want to address issues of obesity among African American populations and specifically want to reduce health disparities, and hopefully get to some point where we can eliminate them altogether. To move forward, we need to have culturally relevant theoretical models that help us to develop and tailor better programs to address the issues that we currently see.

Thomas Jefferson said, "[t]here is nothing more unequal, than the equal treatment of unequal people." In this context, we want to make sure that we understand and value differences and are not treating everyone the same. One size does not fit all.

Insights into Working with African American Older Adults: Spirituality and Cardiovascular Disease

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Hypertension is a severe public health problem in the United States and is the most common chronic disease in the African American population in the United States. The age adjusted prevalence of hypertension in African Americans is 41.4% compared to 28.1% for whites. African Americans develop hypertension at a younger age and have greater rates of uncontrolled hypertension than whites, resulting in a 1.8 times greater rate of stroke, 1.5 times greater rate of heart disease death, and a 4.2 times greater rate of end-stage kidney disease. Thus, it is not surprising that hypertension is a major contributor to mortality disparities between African Americans and whites in America.

Over one-half of all Americans over the age of 60 have been diagnosed with hypertension. Among African Americans who are diagnosed with hypertension the vast majority, 81%, are older adults. Poorly controlled hypertension is often the result of non-adherence to prescribed hypertension regimens, an occurrence more commonly identified in older African American adults when they are compared to their younger and white counterparts. If the Healthy People 2010 goal of reducing disparities in health is to be achieved, then this racial disparity of hypertension outcomes must be addressed.

This study is predicated on the idea that individual beliefs are important to consider when developing interventions to change health behavior, particularly when working with African Americans. Spirituality has been identified as an important cultural belief in the African American community. Indeed, spiritual beliefs and practices provide a foundation for understanding disease, restoring health, and making treatment decision in older African American adults. Therefore spirituality warrants further investigation as to how it may influence older African American adults' adherence to antihypertensive medication regimens.

Grounded theory was chosen for this study because its theoretical underpinnings of symbolic interactionism focus on the meanings people give to their experiences while basic social processes are explored. The purpose of this study was to explore the spiritual process associated with adherence to antihypertensive medications for older African American adults and is consistent with symbolic interactionism. Grounded theory posits that people behave based on how they interpret or give meaning to specific events in their lives. As a result, grounded theories are likely to offer insight and enhance understanding about phenomena, and are appropriate for generating hypotheses and models of human behavior. The findings of grounded theory research are documented as a central explanatory process comprised of related categories.

Study participants were recruited from a Program of All-Inclusive Care for the Elderly, also known as a PACE program. The PACE program is a long term comprehensive model of care designed to address the needs of older adults who have disabilities and are eligible for nursing home care. Using a multidisciplinary team of care providers, the comprehensive services at PACE programs allow PACE members to receive services in an adult day health center rather than being institutionalized. The PACE program provides medical, psychological, and social care, including administration of medications during the hours they attend the program. This study's PACE location services residents of West Philadelphia, which is primarily a low income, African American population. This particular program is comprised of about 99 percent women.

To be eligible for this study, PACE members self-identified as African American or black, self reported a diagnosis of hypertension and a prescription of at least one antihypertensive medication. Data were generated through in-depth individual interviews that were tape-recorded and transcribed. Completed transcripts were analyzed according to grounded theory methodology. This method of qualitative analysis involves three levels of coding that include: (a) open, (b) axial, and (c)

selective coding. Using this approach, interview transcripts were read multiple times and initially coded line by line into meaningful segments during open coding and using the participants' own words. The next phase of coding, axial coding utilized these open codes and categorized them into similar groups using labels and/or phrases. These axial codes produced categories in terms of their dimensions, properties, and contexts. For this study, axial coding produced three major categories and eight processes for the major categories. In selective coding, connections were made between similar categories of codes and the categories were then organized around the central explanatory process identified as Partnering with God.

The basic social process, **Partnering with God**, was described by study participants as a process of working with God to manage the challenges associated with their diagnosis of hypertension. They described specific challenges, such as feelings of anxiety, medication adherence barriers, and fear associated with medication side effects. However, remaining adherent to their antihypertensive therapy was a way to *"work with God"* in helping their hypertension. Participants frequently stated during the interviews that *"the Lord helps those who help themselves"* and *"if you do your part, then God will do His."* Partnering with God suggested that spirituality was utilized in a supportive role and provided resources to assist with medication adherence and is noted in the following quote, "*There's a whole lot you got to do for yourself and that's why it's good to be spiritual. Because He [God] can work through the medicine, provides the opportunity for you to help the blood pressure. But you got to have that partnership with Him."*

Partnering with God linked three major categories that described how older African American adults utilized their spirituality to remain adherent to their medications. The three categories were: ***defining spirituality, adopting spiritual practices***, and ***building strength with spirituality.***

Defining Spirituality

Defining spirituality was an important category because participants described it as their foundation for Partnering with God. However, they struggled to provide a concrete definition for spirituality. Instead, they identified feelings, beliefs, and actions associated with spirituality, including describing spirituality as comfort, my inner being, using God's principles daily, living according to God's word each and every day, and so much more than going to a church every Sunday. Three processes linked these beliefs, feelings, and actions and were used to define participants' spirituality. They were: (A) establishing faith in God, (B) developing a relationship with God, and (C) developing relationships with other Christians. Establishing faith in God reflected study participants' trust in God. As part of this process, participants believed that God was in control of their lives and they trusted Him with their health outcomes. Developing relationships with God and other Christians emphasized the relational nature of spirituality for this group of older African American women.

Establishing faith in God – *"When I found out that I had high blood pressure, I was some type of scared. But then I thought, God is with me and I trust Him to take care of me and look after me. If I say that I have faith in God, then I have to trust that He is involved with everything, my medicines, my doctors' visits, everything associated with my care."*

Adopting Spiritual Practices

The category, Adopting Spiritual Practices, was described as a category where study participants utilized spiritual practices to maintain or strengthen their spirituality. In particular, the study participants described practices that were necessary for supporting their faith in God, their relationship with God, as well as their relationships with other Christians. One woman described that it was important to *"stay in the Lord"* as a way to obtain the support necessary to adhere to her antihypertensive medications. The two processes associated with Adopting Spiritual Practices were praying and reading Bible scriptures.

The process of praying was used to help participants with potential barriers and to alleviate fears associated with medication adherence. Praying helped study participants to cope with medication side effects as noted in the following quotes, *"Prayer helps me with the side effects of the medication."* and *"You pray because there are different allergies that you can get from the medicine. But you pray that the medicine don't give you these things."* Participants also described that they prayed to assist health care professionals in charge of their care. They described feelings that God was the one who gave the doctors and nurses the knowledge to take care of them and prescribe the right medicines as exemplified in the following quote, *"You got to pray for the doctors and nurses. God gives them the knowledge to take care of you. It makes me feel good after I've prayed that my doctor is in the hands of Jesus."*

Reading Bible scriptures was associated with spiritual guidance for the study participants. Specifically, they described that the Bible listed spiritual instructions for living healthy lives. For example, one participant stated, *"the Bible is God's word. It says that my body is the temple of the Holy Spirit. And that means that I am not supposed to do anything that is going to cause it harm. Not taking my medicine is causing it harm."*

Building Strength with Spirituality

The category, Building Strength with Spirituality, represented participants' spiritual resources utilized to manage barriers to their medication adherence. One woman emphatically stated, *"I ask God for help. I've had high blood pressure for years and I take my medications but I ask God to give me the strength for that because it isn't easy. In Philippians it says, I can do all things through Christ who strengthens me. He's my rock!"* The processes identified with Building Strength with Spirituality were (A) guiding decisions about medication adherence, (B) coping with medication side effects, and (C) developing supportive networks.

Participants described that their spirituality was useful for guidance and decision-making with respect to their antihypertensive medications. This process of guiding decisions about medication adherence indicated that, at times, participants may have had difficulty adhering to their medication regimen and need their spiritual strength to help them adhere to their treating antihypertensive. For example, one study participant explained, *"You need to be directed by the Lord. Yes, you need to pray and ask for guidance. You got to have that direction from our Father above. I live by that."*

Study participants experienced medication side effects that included lethargy, ankle and leg edema, dizziness, and frequent urination. They described how these side effects caused feelings of fear, anxiety, and distress in their lives. Coping with side effects identified an essential process where participants used spirituality to *"ease their burdens."* One participant stated, *"When you pray, your burden is lifted. The side effects of the medication and the symptoms of the high blood pressure, that weight get lifted because you know that His will is being done."* Another participant described how spirituality helped to alleviate the fears associated with medication side effects in this quote, *"In the book of Timothy, it says there…'I am not given a spirit of fear but of power and a sound mind'. I remind myself all of the time about these words God gave to us. It brings me peace, I can cope."*

Developing supportive networks was a process where participants indicated that spirituality provided them with different social resources or networks to assist with adhering to their antihypertensive medication regimens. They described several examples of supportive networks associated with their spirituality. One woman described, *"I believe I have help and support. The Holy Ghost is here to protect me from the medication side effects."* Other study participants described that God sent support in the forms of guardian angels. One woman described her doctors and nurses as examples of God's guardian angels. She stated, *"God sends guardian angels. I believe in guardian angels and this is what it's all about. He put the doctors and the nurses here for a reason; they are here to help you."* The process of developing supportive networks also included participants' fellowship with other church members. One participant eloquently stated, *"Most of us have high blood pressure where I go to church. We help each other out…we talk about what medications our doctors prescribed, we talk about the different side effects. I feel like if I didn't have anyone to talk to about it and to encourage me, I might get depressed."*

The older African American adults in this study described how they used spirituality as a positive resource to cope within the context of their fears associated with a hypertension diagnosis and medication adherence. For many participants, they were afraid of the symptoms associated with hypertension, the antihypertensive medications, and the medication side effects. Partnering with God was a process that illustrated a collaborative relationship with God. Participants indicated a level of personal responsibility for managing their hypertension in adhering to their medications as well as other health care recommendations but utilized their spirituality in conjunction with health professional recommendations. They adopted a number of spiritual practices (praying and reading Bible scriptures) to gain inner strength to cope with hypertension and they developed supportive networks with church members. Other research studies have identified similar findings. For example, Harvey's (2006) exploratory work on spirituality among older African Americans identified that her study participants often combined formal medicine with their spiritual practices to self-manage chronic illnesses.

Brown's study identified prayer as a tool instrumental to coping in African American adults diagnosed with hypertension and Walker (2000) identified that a supportive network provided by church ministers was important for improving medication adherence among older African American adults diagnosed with hypertension.

Implications

Interventions that are consistent with African American cultural beliefs are more likely to be successful in promoting healthy behavior, such as medication adherence. The findings from this study suggest that it would be beneficial for health care professionals to consider establishing environments in which older African Americans feel comfortable discussing their spiritual belief systems, including how their spiritual beliefs may influence their attitudes and beliefs toward medication adherence. It also seems reasonable that health care providers may help spiritually involved older African American adults adopt positive coping methods, such as prayer and scripture reading, for negotiating barriers to medication adherence.

Familial Risk Factors for Overweight in African Americans: Implications for Prevention and Treatment

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What factors influence day-to-day family life? What are the implications of this day-to-day family life for weight related behaviors? What are the implications of day-to-day family life in African American communities for intervention and program development?

A discussion of these issues probably generates more questions than answers, because of the limited work that is focused on intergenerational and multigenerational context. When we think about family structure in the African American community and in America overall, we see that the structure of American families has changed rapidly. Both family forms and functions have become more diverse. Families actually serve a variety of functions as compared to the past. Because of increased life expectancy, intergenerational relationships, divorce, single parenthood and adolescent parenthood, people are required to take on different roles and responsibilities. There are additional societal concerns that we are aware of in African American communities like substance abuse and addiction, incarceration, mental health issues, violence, HIV and AIDS. So, it is hypothesized that the changes in intergenerational and multigenerational relationships in the African American community, coupled with changes in family environments, can actually have an impact on weight.

One of these changes is the prominent role of grandparent caregivers, who number approximately 6.5 million in the U.S. So, with regard to living arrangements, if you look at two parent families, there are only about 38 percent of African American children aged 0-17 that lives in two parent families. About 54 percent live in one parent families. Though there has been an increase in grandparent families where grandparents are alone, a large percentage of these families are one parent households with grandparents present. If you compare two parent families for African Americans, whites and Latinos, you see a big disparity. Thirty-eight percent of black children aged 0-17 live in two parent families as compared to 78 percent of white, and 68 percent of Latino children. Although African Americans are disproportionately represented in what are called one-parent families, scant attention has been paid. There is little focus on family composition in the health literature. However, in the social and political debate, family structure is a major issue. The welfare debate in the 1990s, Barack Obama's Father's Day speech about the lack of fathers in the household, and Bill Cosby's tough love discussions, are but a few examples. So, while much is made of this issue socially and politically, the complexity of the issue remains largely unacknowledged by traditional health research. And so it is important in our research we bring that complexity into our work so it can inform the political process and inform the policy process.

So what do we know? There is not a lot of literature on family composition. Most of the studies look specifically at nuclear families and men are rarely mentioned in the literature, even in two parent households. The primary focus has been mothers. Some literature indicates that parents' eating habits as well as child feeding practices and home food availability can impact children's risk for overweight. Although some of the work that was done by Leann Birch and also Karen Cullen on home food availability includes African Americans, most of it focused on majority communities, primarily on white populations. There is limited work on multigenerational and intergenerational families, but there are a few studies. One study looked at maternal and grandparent BMI and showed a relationship with children's BMI. Peggy Bentley has done some work on grandmothers and looking at the role that they play in infant feeding decisions, specifically, breastfeeding and introduction of complementary foods, in a white population. Some other work shows a conflict between parents and grandparents because of differences in food rules.

Lastly, in a study in which I was involved that emphasized social connections, responsibility and care giving were cited as important values when people talked about their food and nutrition management systems in their families. So, the literature is limited. With the exception of the first study, we know very little about the relationship between family structure and BMI.

On the caregiver side, if we look at grandparent caregivers as compared to non-caregivers, grandparent caregivers tend to be in poorer health. Many studies have shown that caregiver roles potentially are a barrier to self care and chronic disease management, but few studies have actually targeted multigenerational families or grandparent caregivers.

Given the limitations in the literature, let us briefly discuss a study we did in Chicago, an ethnography in which we talk a bit about the family structures we discovered and some of the implications for dietary practices. The study was called the *Child Nutrition and Family Study* or CNFS. It was funded by the Consortium to Lower Obesity in Chicago Children, and was done in collaboration with Shannon Zenk at UIC, and Robin Jarrett at the University of Illinois at Urbana-Champaign. The specific aims of this study were to:

1) Identify multilevel factors; individual, interpersonal, community, and neighborhood factors that influence dietary practices in African American families
2) Explore differences and similarities and the factors that influence these dietary practices
3) Develop a conceptual or theoretical framework to explain and address determinants of dietary practices in African American families.

We used two theoretical frameworks: the constructivist approach (in which you explore the processes by which meanings are negotiated and sustained and modified in the context of life experiences), and critical theory (emphasizing social and cultural criticism, in which race, class and gender actually operate to create privilege and disadvantage). The constructivist approach is primarily focused on what is the reality for the participants in this study. Critical theory actually acknowledges that these races and social structures exist, and we want to learn more about how people interact with those structures.

The setting for the study was Englewood and West Englewood, two communities on the south side of Chicago. Englewood has a lot of historical and cultural assets with many long-term community residents. Similar to other communities, in addition to assets, Englewood and West Englewood also have some challenges (61% of female heads of households are African American, 48% don't have access to a car, 44% live in poverty.) So what we wanted to do was look at the community level resources, and the family level resources, and individual level resources and concerns. We took a multilevel approach to examine the community. We did some quantitative assessments to look at food product availability and pricing, as well as the qualitative neighborhood ethnography. And then we interviewed participants about their perceptions of the neighborhood, had them take photos, and then talked to them about their family's perceptions and the context of the community where they live. We wanted to know: *What are their lives like in the context of that community? What are the particular implications for dietary practices?*

We interviewed all caregivers for several children between the ages of 2-5 years who were recruited from elementary schools, community college and other childcare centers. We conducted 20 interviews, between 4-9 semi-structured in-depth interviews for each child, with an average of about 7 interviews. We wanted to get detailed perceptions of this daily life context. Individual interviews focused on child nutrition and health. We called caregivers again 24 hours later, and talked to them about daily routines, and encouraged them to keep time diaries. For data analysis, we used a modified version of constant comparative analysis (which is used in grounded theory). We wanted to look at diversity across families, and what kind of concepts and themes emerge within families. We analyzed the interviews, but we also created family narratives by combining all 7 interviews to examine the family contexts of each child. With regard to 16 (of 20) caregivers:

- 94 percent were black

- One person didn't identify as African American
- The average age was 34 years (the oldest, 63 years)
- Some were grandparent caregivers
- 81 percent had an income under $20,000
- 56 percent received Medicaid
- 12 percent received WIC
- 25 percent received TANF (Temporary Aid to Needy Families)
- 18 percent received SSI

Themes and Concepts

We found that the children in the study interacted within the context of these extended family households, and through multiple food environments. Because they interacted in multiple food environments, they also interacted in multiple neighborhood food environments because the households were in different communities. So, their access to food depended on how they interacted in these environments.

We found a variety of family combinations: *mother only*, *mother and father* (the traditional nuclear family), and *grandmother and mother* (which is common and has been cited by other studies such as Linda Burton's study on adolescent parenting where a younger mother will move in with a grandmother.) What we unexpectedly also found were combinations of *grandfather/mother* (where women lived with their fathers versus their mothers and their fathers actually had some responsibility for caregiving and feeding the children), and *mothers with adult children* (where women have both biological adult children in their 20s and a preschool-age biological child).

We found that the presence of multiple caregivers has implications for dietary practices. Of course, food preparation varies by caregiver, but we also found that extended family members provided advice about feeding. There was caregiver/child plate sharing. So in addition to children eating from their own, where the caregiver would serve a plate, they would also eat with the caregiver. So whatever the caregiver ate, they also ate, particularly in older households. Families would share tangible aid; food, money, rides to the store, etc.

What we didn't find in the literature that we found interesting was the children's interactions in these multiple environments (their own homes, homes of non-residential fathers, homes of non-residential grandparents, and childcare settings). When the child was with the non-custodial parent or grandparent caregivers, the mother was not aware of what was happening at those households, particularly paternal grandparent caregivers. In many cases, these people were not considered in the picture of what would be viewed as the family when we first thought about the study. We thought about maybe the grandmother, the maternal grandmother…but we didn't think about the paternal grandparents and what role they played in dietary practices.

We found that although some people reported that they were single mothers, sometimes fathers were present, or the paternal grandmother was present (if the fathers were not present) or at least took some responsibility for the child. So, African American fathers are generally absent from obesity-related research. Studies examining the impact of diverse family structures on weight-related behaviors are limited. Family-based interventions are normally limited to nuclear families (commonly mothers), and typically overlook skipped-generation families where grandparents are raising grandchildren, and multigenerational families.

As far as implications for obesity prevention and treatment, when you think about these complex family structures, whom do you target? And whom do you include? It can get complex. If you are doing a family-based intervention, do you only include the mother or do you include the grandmother? Do you include the paternal grandmother? Do you include the father? What do you tell them to do? What resources do they have to do it? A lot of these families were strapped as far as resources, time, energy and money. Then, what resources are needed? How long will it take if you have to deal with some of these other issues and complex family structures? And then will the changes be sustainable as family structure and family composition change?

As stated at the outset, we have more questions than answers. But, the questions should help us to gain more insight into discovering the directions we need to take to drive our research.

Session IV: Addressing Environmental Influences on Obesity in African Americans

Influences of the Environment on Diet and Physical Activity in African Americans

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Let us discuss how the environment can be a challenge to overcome in an effort to change health behaviors. Specifically, we will detail what already is known about associations of the built environment and obesity, diet and physical activity. We will discuss what is in the literature, and more pointedly, we will ask the fundamental question: *What do we know about African Americans?* Lastly, we will offer suggestions about what we need to consider as we think about future research.

What do we know about obesity and the built environment? Many of the studies in the literature that deal with the built environment merely catalog the amount of community resources currently available. Few specifically address or identify actual associations. There is conjecture; for example, if there are fewer supermarkets, that may mean it is more difficult for people in certain neighborhoods. However, studies have found positive associations between obesity and area of residence; proximity to recreational facilities or parks; walkability (that includes the presence of sidewalks, intersections, street connectivity, traffic patterns and amount of traffic); proximity to stores; the presence of fast food restaurants, and also the proportion of fast food restaurants to full service restaurants.

Neighborhood deprivation, a numeric score that is calculated using factors such as unemployment, number of rental units, crowded housing, families or households without access to an automobile, and urban sprawl, is positively associated with obesity.

What do we know about diet? We know that non-white neighborhoods are more likely to have fewer supermarkets, and we know that supermarkets tend to have more healthy food choices, which have been associated with a higher intake of fruits and vegetables. The presence of healthy foods in stores (whether they are large supermarkets or other stores) is associated with higher intake of fruits and vegetables, as well as low fat milk. Any discussion of food and food availability in neighborhoods will largely focus on food stores, but the growth of restaurant use and the increased consumption of take-out food calls for more attention.

As a nutritionist, my area of expertise is diet. However, physical activity (with regard to the built environment) is another aspect we must consider. Walkability, the availability of parks and recreational facilities, and neighborhood deprivation are all associated with physical activity. Walkability + More facilities available + Lower deprivation = Higher prevalence of physical activity. People report a host of other aspects of the built environment that may influence physical activity (including crime, street lights, unattended dogs), but the level of their association with physical activity varies from study to study.

Regarding diversity within African Americans, few studies have looked at age. Up to now, the focus generally has been adults; not much has been done with children. But, with children, similar themes emerge: proximity to facilities, proximity to school, whether students walk or bike to school, sidewalks, connectivity, traffic lighting, crime, and deprivation are positively associated with physical activity.

Lower crime, more biking and walking trails access are associated with overweight.

Note that lower SES neighborhoods are associated with less fruit and vegetable intake and have fewer supermarkets. Interestingly, one study actually found that lower SES neighborhoods had a higher association with walking. It postulated that with fewer cars per person in those neighborhoods, people may have to walk more.

Several other AACORN members and I took a look at what is in the literature about African Americans. We are currently revising the paper for the American Journal of Preventive Medicine. In our systematic review, we examined objective measures and people's perceptions about the built environment and its association with obesity, diet and physical activity. We only considered observational studies (not interventions or other studies) published prior to August 2007 that had at least 90 percent African American participants, or had a subgroup analysis, so that we could look at African Americans specifically. We searched databases and our own collections of papers, and looked at the bibliographies of other articles. Although our extensive search discovered hundreds of articles, only 10 actually met our criteria. Of those ten, only one looked at the association with obesity, two at diet, and seven at physical activity.

Because we found so few, we also looked separately at twelve articles that involved lower percentages of African Americans (not all of the studies said exactly how many). What we found:

- **Obesity:** A higher BMI was associated with a higher reporting of exercise barriers, but not all of those barriers were related to the environment.
- **Diet**: For two studies, more supermarkets meant more fruit and vegetable intake.
- **Physical Activity:** Some studies found less traffic, more sidewalks, and a safer area as being positively associated with physical activity. Unattended dogs reduced physical activity among participants. (*Other studies did not show associations with this.)

In the studies that did not meet our initial criteria, but did have African Americans:

- Six had a positive association between the perceived environment (what people thought was in the environment) and physical activity; five found increased physical activity in older, more walkable neighborhoods.
- Regarding diet, proximity of supermarkets was associated with higher fruit intake (similar to what was found in studies that focused on African Americans).

Current Research

I would like to mention a study on which I am currently working, along with my colleague, Carol Horowitz, and the New York City Department of Health. We conducted a survey of 400 people with diabetes in East Harlem; most participants were black or Latino. The Department of Health surveyed all of the stores in East Harlem and looked for some healthy foods and some not healthy foods. I took the data from both, and used geographic information systems (GIS) to determine how many stores were within 0.15 miles of each participant's home. (We chose 0.15 miles because in previous focus groups, Carol had found that people were willing to walk one avenue block and one regular block with their groceries, which is a distance of 0.15 miles.) We assessed diet using Gladys Block's fruit/vegetable and fat screeners, and we were able to obtain hemoglobin A1C to look at diabetes control and LDL from their clinics. We did not find any real associations. We did find that there were some trends toward people who were closer to stores having higher BMIs, which is not what we expected to see. Clearly, we need to look at the data more closely to learn more about what might be going on.

One of the limitations of these studies is that "availability" is defined broadly. Different studies have different ways of defining types of stores, look for different types of foods, assess availability of those foods in different ways, and target different outcomes. For physical activity, some studies look at perceived environment while others actually measure the environment. So, results don't always match up. Some studies find associations and some studies don't. We need to consider a number of factors that are not usually considered:

- Gender differences

- Age differences
- Education
- Do people know what they are supposed to be eating? Does it make a difference?
- Mobility issues
- SES

We need more studies that look at associations with environment, especially for diet and obesity. Of course we also need more interventions to examine if changing the environment results in a change in behavior. The information and the data are not there, and a lot more work must be done before anyone is in a position to effectively determine what the story really is telling us.

Benefiting African Americans through Environmental Change: The Role of Public Neighborhood Parks in Promoting Physical Activity

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The obesity crisis has received broad coverage in popular media. Recent efforts to reverse obesity have centered on identifying policies and environments that promote physical activity and healthy eating (for example, increasing physical education in schools, or increasing neighborhood walkability by providing sidewalks and bike paths.)

Healthy People 2010 explicitly identified community spaces and facilities as critical factors in increasing and promoting physical activity. Public neighborhood parks are important in this effort for several reasons; they are very accessible and are widely available, and they can be used freely (or at very low cost) in most cases. In one of the few studies that examined how much people use local neighborhood parks, colleagues noted that 70 percent of all adults live within walking distance of an urban park. So given that these spaces are widely available, they can be a part of the routine behavior for many residents, including members of the African American community.

The CDC published a systematic review of ten studies in their Guide to Community Preventive Services where they found that creating or enhancing access to places for physical activity was effective in getting people to exercise more. In fact, they noted that creating or improving access to places for physical activity, along with informational outreach can result in a 25 percent increase in the number of people who exercise at least three times a week, and they characterize those findings as strong evidence. They also note, appropriately that they have to target populations and that these interventions should be applicable to diverse settings and groups. However, there are some limitations that should be pointed out. None of these studies examines interventions based in neighborhood park settings, so there is little guidance on how to promote physical activity in these settings. Also, there is a narrow cross section of African American communities in these studies that are reported in the Community Guide document.

But what we do know from the literature is that parks and recreation areas can increase opportunities for physical activity. Girls living within a one-mile radius of a neighborhood park get 35 more minutes of moderate to vigorous physical activity compared to girls who live more than one mile away. And, compared to a number of different neighborhood resources, community neighborhood parks are associated with 24 additional minutes of non-schooled moderate to vigorous physical activity. There is consistent evidence: parks increase opportunities for physical activity. Fourteen of twenty studies show positive associations between access to parks and physical activity (Kaczynski & Henderson, 2007). Across 20 studies in the health literature, access to *recreation facilities, programs, and aesthetics* were associated with consistent higher physical activity (Humpel et al. 2002). Despite these findings, it is important to also examine what factors in parks (or about parks) contribute to physical activity across diverse communities. The studies I cited identify access, proximity, or availability as predictors. We have been working on issues to identify specific facilities and settings in parks. By knowing these, we might then begin examining the question of what is the optimal configuration of design elements, management activities, and programs to promote physical activity in parks.

What factors contribute to physical activity in parks in ethnically diverse communities? What specific facilities and features contribute to physical activity in parks?

I want to talk about two studies. The first study took place in Tampa and Chicago. For now, let us focus on Chicago because it has the best representation of African Americans. Systematic observations were conducted in 18 Chicago parks.

Park selection was based on the racial/ethnic composition of areas surrounding the park. (In some cases this was achievable in Tampa; however higher segregation in Chicago (99% black, e.g., in some areas) allowed us to classify areas by predominant racial/ethnic group.) The conceptual model posits that neighborhood characteristics (race/ethnicity and SES) and park characteristics, as well as demographic characteristics of individual park users affect physical activity in parks. We observed over 2500 park users across 18 parks and what we found was:

- About 51 percent were engaged in sedentary activity
- About 28 percent were moderately active
- About 21-22 percent were vigorously active.

Looking at what spaces actually contributed to physical activity, we looked at activity in specific observation areas and we found what might be expected: walking paths and trails contributed 84.7 percent of moderate or vigorous activity, followed by soccer fields, and basketball courts. Baseball, which included about 781 park users, was associated with the lowest level of moderate and vigorous physical activity. If you have been to Chicago parks, you will know that a lot of softball and baseball fields are a part of the park configuration there.

In multivariate analyses of the various correlates of physical activity in public parks in Chicago (sedentary activity contrasted against moderate physical activity, and sedentary activity contrasted with vigorous activity) we found that free play is very important in achieving moderate activity. We saw that census tract income where the parks are located was associated with decreased odds of achieving moderate activity. Also, parks in predominantly black neighborhoods in Chicago are associated with higher odds for achieving moderate levels of activity and also vigorous levels of activity.

In some other comparisons, we also assigned kilocalories constants to our three levels of physical activity, which allowed us to compare mean energy expenditure associated with park use. We found that we see slightly higher energy expenditure in parks that were located in African American or black communities compared to white communities and Hispanic communities in Chicago. This suggests blacks' use of parks can be an effective part of weight control strategies.

A second study I wanted to highlight focuses on children's use of parks. Where the Chicago study dealt with all users, this one (based in Durham, NC) separates children and how they use parks, and the implications for their levels of physical activity achieved. Twenty parks from Durham's inner core (mostly low-income African American areas) were selected. Similar to the other study, we were interested in neighborhood and park characteristics. The primary difference is that here we also were interested in parenting and supervision in relation to children's use of parks and physical activity.

We found that among children the level of sedentary activity is below 50 percent in comparison to moderate activity (which is higher among children). This is a different pattern than what we see among adults. We see 12-13 percent of children being engaged in vigorous activity, which is very encouraging.

In categorizing children by level of physical activity, we wanted to examine children from different age groups. We categorized them as aged 0-5 years, 6-12, and 13-18. The youngest children were most likely to be sedentary. The 6-12 year olds were the most active.

So, what factors (personal, social, and environmental) are associated with increased or decreased odds of moderate or vigorous physical activity?

Factors associated with INCREASED ODDS:

1. Being in the 6-12 year old age group
2. Informal organized play (i.e., games, tag, group play)
3. Gender (boys are significantly more likely to be active)
4. Accessibility of recreational equipment

Factors associated with DECREASED ODDS:

1. Teen age group
2. Site amenities (signs, benches, tables, etc.)
3. Adult supervision (associated with lowest odds of moderate or vigorous physical activity, especially noticeable with younger children)

We see that parks hold potential to increase physical activity in African American communities, but research is limited. We also have some data to suggest that parks may be important in weight control strategies. Given some of our data on energy expenditure; social and environmental correlates also are very important. Style of play, as well as what is in parks (which might be different for females), and free and unsupervised play are important for children's physical activities.

We need more detailed analysis of environmental features to support physical activity in African American communities. We need more measures that might be sensitive to the types of environments that we might encounter in those communities. While parks might generally available, crime (or perception of crime) is a deterrent. We must develop a better understanding of crime and safety in order to design and manage secure, healthy environments.

We need to detail how available parks and recreation actually are in quantity and quality, as well as levels of funding for development, maintenance, and enhancement. As we learn more about correlates, interventions incorporating varying configurations of programming, management and site modifications should be evaluated for effectiveness in increasing physical activity and reducing obesity in African American neighborhoods.

Obviously, collaborations across disciplines and sectors are needed. Obesity is a huge problem generally, and it is a problem for African Americans, particularly. No one discipline or sector can solve this problem alone.

I want to close with an acknowledgment of my sponsors. The studies were funded by the Robert Wood Johnson Foundation, Active Living Research. I want to make sure to acknowledge my co-investigators (Drs. Spengler, Maddock, and Gobster) on the Chicago study and for the study that is taking place in Durham (Professor Moore, Drs. Baran, Bocarro, Cosco, and Smith). Some of the data analysis was supported by the North Carolina Forestry Foundation at NC State University. Thank you.

Changes in the Marketing Environment for African Americans

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Marketing is everywhere. You may have seen it on the back of bathroom doors, on ceilings in waiting rooms and hospitals, and it really influences all spheres of human life. I think of it as an economic, social, and cultural technology. It is neutral as a process, so the meaning of marketing is created through its implementation.

Estimates of marketing expenditures range from almost $400 billion to over $1 trillion dollars. If it were its own industry (like real estate or finance) it would be #5 in the United States, and advertising is estimated to reach a conservative estimate this year of $250 billion.

The definition of marketing is the activity or set of institutions and processes for creating, communicating, delivering and exchanging offerings that have value for customers, clients, partners and society at large. Social marketing is the use of marketing principles to create socially positive outcomes. If you look at marketing versus social marketing you get a sense of how differences might arise in social marketing. Benefits are a lot more abstract, a lot more long-term. There is a lot more scrutiny in terms of social marketing relative to commercial marketing. Rothschild (1999) has proposed the behavior management continuum because marketing is not the only way to really manage behavior in society. There is education which can inform people of what options are there. There is policy which can tell people this is what you have to do, and marketing kind of fits in between in terms of providing people options and trying to persuade them which options are best. For example, education might encourage a person to eat five fruits and vegetables a day, and policy or law might provide that if a person has food stamps, he can only buy fruits and vegetables. Whereas, marketing would lower the price on fruits and vegetables, make them more accessible by putting carts on the street, and make them more attractive relative to what is out there. This is an example of how different kinds of strategies are used to manage social behavior.

The core process of marketing is target marketing, which is really about finding ways to segment a population and to group consumers according to need. Group assignments could be based on demographic factors like race or ethnicity, age or gender. Usage is also a common category: *Who buys the most fast food? Who drinks the most soda?* Or, it could be based on a combination of these variables. Marketers then evaluate their goals. *Are we trying to increase usage? Are we trying to make light users use more? Or are we trying to get people to buy more?* They determine who they are going to target, and that is their target market. Then they take marketing actions to reach those target markets using the four P's (product, price, promotion and place).

Historical Context

Let us examine a framework developed by Branchik and Davis (2007) to talk about the historical context of marketing to African Americans. They looked at five phases:

- **Oppressed (pre-1865-1915)** -- Civil War, Emancipation, Reconstruction as historical drivers. No formalized targeting of blacks. Derogatory depictions of blacks in marketing (Aunt Jemima, Uncle Ben)
- **Urbanized (1915-1945)** – World War I, the Great Depression, World War II, black migration as historical drivers. Emergence of the black media, through which blacks became more formal consumer targets.
- **Awakened (1945-1965) –** Civil Rights Movement, focus on democracy, free access to goods. Black middle class consumer is born.
- **Empowered (1965-1980) –** Rapid growth of black middle class, more mainstream consumption opportunities plus decline of black business economy
- **Diversified (1980- present) --** Increased marketing influence of ethnic marketing, black psychographic.

The implication of this historical context is that the struggle for racial equality encompassed consumption equality, and that target marketing was desired and demanded as a signal of citizenship.

There has been limited research on the broader social outcomes of target marketing.

Marketers conduct a great deal of research on African Americans, and with good reason. There are 39 million consumers with buying power of $892 billion and it is expected to exceed $1 trillion in 2012. African Americans also spend $150 or more per week on groceries (more than all other groups.) To convey the depth of the market attention paid to African Americans, we need only to look at a few conclusions drawn about African Americans by market researchers in *Highlights of African American Consumer Behavior, Packaged Facts Report 2008:*

- Impulse buying is more common among African American women
- African Americans pay attention to in-store promotions
- African American parents like to indulge their kids
- African Americans view advertising as a positive force
- African Americans spend more on eating at home
- Healthy eating is a struggle for many
- African Americans believe in going to the doctor
- African Americans do dot hesitate to take medications when not feeling well
- Advertising sways choice of medications
- Cell phones are an important part of African American lifestyle

In terms of assessing target marketing, the typical approach focuses on advertising. But, marketing is a system, so it is not just advertising, it is not just distribution. We mentioned four different Ps: product, price, promotion, and place, and controllable marketing variables are important points of intervention. So, all components really must be assessed in order to understand and appreciate the impact of targeted marketing.

Food Marketing Study

Does targeted food marketing contribute to observed disparities in obesity in high-risk population segments? Does target marketing of more unhealthy foods happen?

To answer these questions, we undertook a systematic review of empirical research related to target food marketing to describe the food marketing environment (Grier and Kumanyika 2008). We wanted to know of what food products are African Americans made aware, to which products do they have access, and what they cost. So, we considered the food marketing environment which involves product strategy, types of food, packaging, portion sizes, etc. There were other factors to consider, but about which we didn't find any empirical literature (but which can be found in industry press) like strategies to customize a product to reach a particular target audience.

We searched for empirical literature in eight major databases across disciplines. We looked for any label that mentioned black race or ethnicity, black, African American, or African. We looked for any type of food or beverage product, and any mention of product, price, promotion or place dated in the last twelve years. We also coded the quality of each of the articles. The search identified twenty articles over the twelve year period: eight were content analysis of ad messages, one was an assessment of in-store promotions, 11 were studies of food outlet locations, and three were comparisons of food prices. There was only one marketing or consumer behavior article; and five were rated high quality and fifteen medium quality.

Overall, the articles revealed quite a bit about the marketing environment:

- **Product and Promotion** – looking only at studies with explicit comparisons, promotion to African Americans relative to whites is more focused on low cost, low nutrition, energy dense foods; candy, soda, fast food and convenience. The in-store promotions were more frequent and less likely to be for healthy items, and positive nutritional messages and healthier foods were less prevalent relative to white targeted promotions. And we only looked at studies that had an explicit comparison.

- **Distribution and Price** -- Black consumers have less access to supermarkets and higher access to fast food outlets than white consumers and stores and restaurants were less likely to offer healthier options.

Also, they were not full service, or to have clean, convenient and secure facilities in areas with more African American residents. Produce quality was lower in black communities. African Americans were also more likely to experience higher fast food prices. These distribution issues were coupled with price in that food prices vary significantly by the type of retail outlet across areas.

In summary, the data were limited but consistent in that the marketing environment is less likely to support healthy eating. Rather, it may predispose people to excess caloric consumption and poor dietary quality. It also may limit or counteract the effectiveness of prevention efforts, and the effects may be heightened through a consideration of consumer response. (*To truly understand what marketers do, you must consider consumer response -- what they buy, how often they buy, how much they buy, etc.)

In terms of limitations and opportunities, the research was primarily cross sectional. The literature often confounded SES and race; primarily the focus was advertising and distribution.

More research is needed on other promotions, in-store promotions, local advertising, billboard advertising, and other "Ps." We need ways to measure cumulative effects. We also didn't capture the "grey" literature. For example, the Food Trust in Philadelphia has done lots of studies and that wouldn't have been captured by our systematic review. But the implications of this are that the marketing environments are the result of controllable strategies that businesses develop. We need to incite more proactive corporate interventions, such as the targeting of healthful foods. So, much more research on marketing environments is critical. Looking at all of the components together is how businesses develop their strategies; replicating their patterns is one way we can understand the marketing context in which specific consumer segments make choices and act.

Implications and Emerging Trends

There are two emerging trends that might be relevant: **behavioral targeting** (which is targeting often done online based on what you have already purchased); and **Hispanic focus.** (Because the Hispanic market is growing so rapidly, many believe it to be a bigger target than the African American market.) In terms of product shifting and what products are targeted to African Americans relative to Hispanics or other groups, this development could be a critical development given the size of the African American market:

- 39 million consumers with buying power of $892 billion; expected to exceed $1.1 trillion in 2012
- Those living in the South account for 54% of African American buying power.
- 2.4 million African Americans in $75K+ households; these affluent households account for only 17% of all African American households but control 45% of total buying power in the African American market.

African American consumers create a wide range of possibilities for marketers in various industries:

- Food and Beverage: 3.9 million black consumers spend $150 or more per week on groceries.
- Health and Fitness: 7.6 million African Americans said they exercise regularly at home, which opens up possibilities for marketers of exercise equipment.

As researchers, it is imperative for us to consider that the myriad ways we can think about what motivates African Americans to consume, can have a profound effect on the way we design studies and interpret them.

Session V: Crafting Solutions: Settings and Tools for Change

Constructing a Risk Education Program as a Prelude to Behavior Change

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With regard to morbidity and mortality in the general population, cancer accounts for nearly one quarter of the deaths in the United States, exceeded only by heart disease. Not only are these diseases the leading causes of death in the U.S. population, they also have health risks in common. With regard to morbidity and mortality of African Americans, significant disparities exist between African Americans and whites for both cardiovascular disease and cancer. The West Philadelphia Consortium to address health disparities was created because of these differences in the incidence, the prevalence, the mortality, and the burden of disease and other adverse health conditions that exist between African American populations and other groups in the United States. The West Philadelphia Consortium is an academic community partnership, established to conduct community based participatory research to improve the health outcomes of African Americans. The consortium is composed of faith-based, community and academic organizations with health missions; grass roots social justice, and community empowerment advocates; and has experience with research activities, program development and evaluation. The mission of the Consortium is:

- To develop infrastructure for community and academic researchers to undertake joint intervention research to address disparities in cancer and cardiovascular disease in African Americans.
- To identify and prioritize concerns for cancer and cardiovascular disease.
- To develop, implement, and evaluate interventions to address community health priorities and concerns.
- To develop resources to facilitate academic and community partnerships in West Philadelphia
- To develop and implement strategies for disseminating the results of the interventions to academic and community stakeholders

Let us now discuss the education program we designed to evaluate the effects of an integrated risk program (cancer and cardiovascular diseases) on behavioral and psychological outcomes in African American men and women. The target population was residents of West and Southwest Philadelphia, where more than 70 percent of the residents are African American and are high school graduates. One of the first collaborative efforts of this organization was to do a social and epidemiological assessment of the target area. The objectives were to identify community priorities for primary and secondary prevention of cancer, and cardiovascular diseases by using multiple assessment tools (key informant interviews, focus groups, and a community health telephone survey using random digit dialing.)

What we found is that cancer was the primary concern of the community, followed by violence, STDs, diabetes, and obesity. When we looked at fruit and vegetable intake, we found that they consumed less than the recommended intake of fruits and vegetables (at least one a day, or three times a week or less.) We also know through the community survey that 7 percent of African American male and female residents had a personal history of heart disease, and 6.9 percent had a personal history of stroke. In key informant interviews, they also expressed concern about cancer, cardiovascular disease, and obesity.

Respondents suggested that we educate the community about the disease, and that our efforts should focus on a healthy lifestyle through diet and physical activity. They were very emphatic that there should be direct education and prevention efforts toward children so they don't grow up and acquire these diseases. They also suggested that we use innovative approaches to reach community members. So we see that the communities really do know what they want.

The greater rates of morbidity and mortality from cardiovascular disease and cancer among African Americans can be attributed to the higher prevalence of risk factors for these conditions in this population. So, we present here the construction of an integrated risk program that was pilot-tested, the aims of which were:

- To evaluate the effects of integrated risk counseling on risk comprehension
- To evaluate the effects of integrated risk counseling on motivation for behavioral change
- To identify the mechanisms through which integrated risk counseling leads to changes in motivation

This process of program development went through several steps:

1. Identified community priorities through multiple strategies
2. Disseminated results to the community stakeholders
3. Presented information to Executive Committee to develop intervention concepts
4. Created Subcommittee to create the intervention
5. Returned to Executive Committee for review and approval
6. Intervention finalized and pilot tested

The components of the integrated risk counseling program are very familiar constructs: perceived severity, perceived risk, self efficacy, and cue to action. Strategies are then identified for dealing with each subject matter area. Here, the subjects were cancer and cardiovascular disease; identifying the overlapping risk factors; values clarification for motivational interviewing and provision of information about behavioral change; and helping the participants to develop individual action plans. We constructed an interactive learning environment for participants to process these concepts or constructs through their own experiences and in a variety of learning activities that increased comprehension of the information.

The program components were delivered it in a group setting by a health educator. We incorporated multiple modes of presenting information. The content was two and a half hours in length. We developed the intervention to be brief, but intensive, so that we could take it into the community. The research design was a quasi-experimental design. Follow-up assessment was completed immediately after the program. The participants were African American men and women who were residents of West and Southwest Philadelphia with no personal history of cancer, who were recruited through mass media strategies.

So who attended these sessions? One of the surprises was the fact that we had a good contingent of males who self referred to the session, as opposed to the sprinkling we typically find. The majority of participants, however, were female. Most were not married; more than half had some college education. A large majority were not employed and made less than $35,000, but the majority had health insurance. We found some changes in risk perception. People were beginning to see that if they had more of the risk factors, then they themselves were at risk. There also were changes in self-efficacy. People felt they had the ability (or the ability to learn how) to make changes in their health behaviors. We did not find that there were any changes in behavioral motivation, which is likely a product of the quasi-experimental design. There was no time for actual behavior change.

It is important to identify community priorities and concerns before developing health promotion programs and incorporate this information into program development. Integrated risk counseling did not increase motivation to eat a healthier diet and be more physically active. However, integrated risk counseling has a positive impact on self-efficacy and perceived risk. Greater attention to individual barriers and facilitators may be needed to address motivations for behavior change. Future research will evaluate the effects of expanded risk counseling and health behaviors in a randomized trial.

Perceptions & Factors Influencing Healthful Food Consumption in African Americans

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Behaviors must be understood within the context of cultural values in which they occur, reinforcing values which promote positive health behaviors while discouraging negative ones.

I am a registered dietician, I am the Executive Director of a non-profit nutrition practice group, and I spend a lot of time in my community. My partner and I have written four of the African American cookbooks for the American Diabetes Association, *The New Soul Food Cookbook for People with Diabetes*, *Slim Down Sister*, *The Healthy Soul Food Cookbook*, and *Family Style Soul Food Cookbook*. And, we just signed a contract to write the first African American cookbook for the American Cancer Society. Over fifteen years ago, we created the Soul Food Pyramid without any funding support. We had no research money, nor any grant writing skills. Our partners simply came together and pooled our money to create a culturally sensitive nutrition education tool for African Americans. We felt that My Pyramid was an ineffective tool with regard to African Americans, and ultimately served no purpose. To convey information about food, images and discussions of identifiable foods must be present in the material. Our position is that African Americans (like any other group) need to see themselves reflected in the material in order for it to be effective. So, to that end, our books focus on soul food. We always were concerned about soul food getting a bad rap, and there is nothing bad about soul food. It is a part of our tradition. It is our heritage. It is the way we are.

The way we eat is part of our makeup, as is the way that we prepare food, the way we shop for it, how much of it we eat. That is the reason we created the Soul Food Pyramid. The main thing we wanted to address in the new pyramid was the food label. We wanted to show people how to put the food label together with serving sizes, because many of us don't 'get it'. Many of us don't understand serving sizes and portions; "portion distortion" has inflicted a lot of damage over the years. We also have a kid's food pyramid. We try to make our information really simple because so many of us don't understand how to count calories.

Our newest project is the development of an inner city nutrition resource center. We recently moved from a location we'd occupied for 17 years. With both public and private funds, we were able to completely transform a space of 3400 sq. ft. In addition to our offices, the center will feature four state-of-the-art test kitchens, where will be able to cook, eat and learn. Our new facility will provide corporate wellness and community wellness programs, and will enable us to teach people how to cook soul food in a heart-healthy way.

Women's vs. Men's Perceptions of Food

When we look at women and food from the grass roots perspective, we see women as the nutritionists of the family: they buy the food, they cook the food, and they are a big source of information. They control the kitchen. Because black women exert such control over family dynamics with respect to food and health, black nutritionists must reach out to black women to be effective.

Men, in contrast, typically play a more passive role with food. Most men rely on women to cook and prepare their food. Black men want a woman who can cook soul food just like their mother or grandmother, and they want it to taste good. A lot of times when I cook and prepare things, even in my home, I don't advertise what I do to the food. I simply serve it, and my family eats it. But often, they are pleasantly surprised because they, like so many of us, believe that if soul food is modified, it is going to taste bad. That is not the case.

Meaning of Food as It Relates to Health

Our younger audiences are not concerned about tomorrow. We are now starting to see the effects of diabetes and Type II diabetes in 10-12 year-old children.

It is really important for us to get them to understand that bad eating habits create bad health as they get further along in their adult lives. We must correct bad habits and misconceptions about healthier eating, like:

- It costs more to eat healthy
- Feelings of never getting full on a dietitian's prescribed plan (Having learned to always eat everything)
- Feeling of invincibility (eat now, worry later, you only live once)
- Belief that one "can't get full" eating salads

Values Attached to Food

We socialize with food all the time, and for a variety of reasons. Sometimes, we find it necessary to enjoy as much food as we can eat as a way to demonstrate improved SES. We celebrate and mourn with food that is high in fat, salt and sugar. Whenever there is a gathering, we believe food should be involved. Food is a cultural symbol and eating is a symbolic act through which we communicate, perpetuate, and develop knowledge, beliefs, feelings and practices towards life. It's essential for health educators to provide educational interventions that are realistic in order to modify dietary practices.

Serving Sizes -- We want bigger houses, we want bigger cars, we want bigger money, and we eat on bigger plates. Studies show the bigger the plate, the more people serve, typically about 25 to 28 percent more (Wansink). African Americans find it acceptable to get the "itis" after we eat, and lie down. There is something wrong with that. We want more, we eat more, and we don't understand what our portions really are. When we talk about portion control, I often tell women to use the palms of their hands to guide them, but I caution them to use their own palms as a reference for themselves. His portions are not your portions. It is always important to understand that. Often, when I show my clients what a real serving is, they get angry. The Baby Boom generation grew up on smaller plates and smaller cups. We must return to the way that we used to do it. We do not necessarily have to give up everything, but we must pare down. When we look at popcorn 20 years ago it was 270 calories; today it is 630 calories, a difference of 360. Most of us think that 'low fat' is 40 percent less calories when it is only averaging now at 11 percent. People eat an average of 28 percent more calories when they eat low fat snacks than regular ones. Obese people can eat up to 45 percent more than non-obese people. For policymakers and companies, the message has been that low fat foods are likely to solve the obesity solution. But, people are very likely to overeat even on a low fat diet because they think fat free is okay, so they just double down or triple down. We have to understand portions.

The questions I ask my clients all the time are:

Do you clean your plate a lot?
Are you a controlled eater?
Does alcohol affect your food choices?
Are you a big snacker after the sun goes down?
Do you drink water?
Do you cook?
Are you a veteran dieter where you are always trying something different and it hasn't worked? Do you entertain for business frequently where you are seeing yourself gain a lot of weight?
Are you commuting or do you travel a lot?

The answers are really important to us because they guide how we conduct assessments. I often emphasize the importance of journal writing. We must look at our bad habits, and transform them into good habits throughout the life cycle. Dr. Brian Wansink says that we don't buy illness, it just comes. T.D. Jakes says that in order for us to progress to wellness, we have to possess it. A lot of us do not possess it. We do not own it. We don't have to give up everything that we love to eat, but we have to stop eating like it's Christmas every day. We celebrate with food. We mourn with food. We find excuses to eat all of the time. It is really important for us to master some of those things. We have to master the ins and outs of eating, discover the art of strategic snacking, trim the fat from our trips, and overcome overeating. We must avoid hotel food, and become savvy eaters. We must use smaller plates and cups. We must learn to monitor our caloric intake, understand the hand jive method (snacks that fit into the palm of your hand.)

We have expectations, we have responsibilities, we have feedback, and we all have to put it to work. The hard part is changing the behavior. A dietician's view is that we have to learn how to meet people where they are.

We have to practice introspection before we practice “extrospection”. We must help to define the issues, find solutions and explore options. We must find the positives and reinforce them, and master finding the negatives and remove them. Soul food is a part of our tradition, our makeup and our lifestyle. It is not going away, it just needs a facelift.

Perspectives from the Community: Life Stressors for African American Women and Girls

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As a single black parent I often contemplated how food was brought into my life from the very beginning. Mothers are truly our first educators. From the moment I was born I saw my mother in the kitchen. She worked a full-time job for the government for over 28 years, but her first and foremost job was to make sure her children ate breakfast, lunch and dinner. She bought groceries in large quantities to ensure that she had enough food to last until more income presented itself. She made basic meals that she would cook every Monday, and every Friday; Friday was fish night. Regardless of whatever else may have happened, Friday was fish night or grits. For the life of me I couldn't understand why we ate fish and grits, when I thought the tradition was fish and spaghetti. She said, "I don't like pasta with fish. It is fried food; I want grits."

I always thought a lot of our eating practices were healthy. Although we consumed a lot of fried food, we often had baked fish or beef. I grew up thinking that my mom's health habits were okay until the reality check hit about in 2003-2004 when my mom was stricken with severe diabetes. She had smoked for many years, but when she stopped smoking in 1995, weight just stuck to her like glue. She had very little arms, very little legs, but her mid section made her look like a pineapple. She was just round.

I was always told that I was a healthy young lady. People would tell me not to be affected by what others may say about my size, and offer encouragement: 'you eat well'…'you are athletic'…and so on. But sometimes, I still would look at those other young ladies and wonder, "Why can't I be their size? Why can't I go to the store and pick up clothing and slide right into it and be able to walk out the store?" I always would have to go find the right pair of jeans or the right shirt that covered up contours; clothes that would allow me to look in the mirror and say to myself, "You look okay, and you can now walk out of the door." I always had to get those types of outfits.

The doctors came to us and suggested that my mother have a gastric bypass because no matter how many diets we tried to put her on, despite our suggestions to cut back on the serving sizes, stop frying this, stop frying that, to cut back, sugarless this, sugarless that, she gained more and more weight. She got bigger and bigger. She went from 180 pounds to 325 pounds in two years. When my mother tumbled down the stairs, she described it as if she literally could not catch herself. Her weight shifted forward she couldn't control it. So at that point my sister and I looked at each other and agreed that mom had to have the gastric bypass.

To watch her go through the bypass was very hard because she had diabetes, high blood pressure, and all of the other factors that were weighing stressfully on her body. After a while, certain doctors felt that she wasn't a good candidate. We prayed that she would make it through the surgery. Finally, she had it done. To date, she has lost 138 pounds due to the gastric bypass. We look at my mother now and wonder, "Are you really our mother?"

I never would have thought that food would make such a negative impact on life, or that overeating would cause life to end early. I have lost a lot of friends because they were too big; their hearts gave out and they died of cardiac arrest. One friend who recently died was a 33 year-old police officer who suffered a heart attack in his sleep. His death shocked the daylights out of us because he often would say, "I am going to diet, I am going to diet, I am going to exercise, and I am going to do it." Well, now it is too late.

From my point of view, we have always been brought up on food. We have always been able to get together, to eat, to have a good time, to associate; but now it is starting to sink in that food is not so much the medication that we all thought it was. Now that I have a daughter who is getting ready to go to high school, I have to police everything she does, from food to clothes, music, friends, education, what her next goal is going to be, etc. She will be going to a really rough high school, and I know what kids are going to be like. I remember what it was like when I was growing up; kids are much meaner now. So I am just trying to encourage her, guide her, and teach her.

Definitely with the help of Dr. Carter and the Jewels Program, there are different ways to deal with many different stresses. Do not let them bring you down because they are not happy, because they are going to look on you negatively because of your size. A lot of them are not going to be able to accept you for who you are, and it will seem like you always have to prove yourself, but you don't. You only have to make two people happy: God and yourself.

Bre'anna. I had problems with my eating. I used to sneak into the kitchen after midnight, grab some food and run back upstairs. I used to snack so much that I became overweight. I was bigger than my mom, bigger than my grandmother. My grandmother was 230 or 240, and I was bigger than her: I was 265 pounds. Every time I went to my grandmother's house, she would just look at me and wonder, "How can you be bigger than me? I am 60 and you are 14." My response was, "I don't know, I think I keep eating too much." All of a sudden it kicked in. I said to myself, "Oh wait, you have to go to high school next year and they are going to be kicking your butt all over the school." Dr. Carter and my mother told me to stop snacking, to eat healthy, run outside, go play, don't sit in front of the TV. I was a couch potato glued to that TV for 13 years. I was glued to the television like it was my life. I read a lot but I didn't go outside very much. When they told me that it would come down to me having diabetes I said, "No. Not for me. I don't want to die before I am 60."

So they put me on a diet, started putting vegetables on my plate that I didn't like to eat -- but I got used to them because they started putting tastier things in the food that made me want to eat them. My favorite vegetable right now is broccoli. I eat broccoli steamed, broiled, I would eat it if it had cheese on it, and that is my favorite one because it helps me out. It gets me up and gets me going. I am out of the house at 7:00 a.m. and go play. Now that my mother is working a lot, I run outside and do what I have to do and come back inside, help her make dinner, and then she goes to work. I sit in the house with my brother and my sister, and say, "Here is the drill: I go this way, you go that way, and you go that way." We leave each other alone. We don't bug each other like we used to do. Whenever my brother and I got into it, I would eat. Anytime he said anything to me, I would eat. My mother came home one night and saw me sitting in the living room eating cheesecake and she asked, "Why are you eating this at 1:00 a.m.?" I said I got hungry. She said, "No you didn't. You ate it because it was there." I said, "No, I was hungry." She said, "You just ate three hours ago! How are you still hungry?" My aunt told me that if I was still hungry, I should drink water. She bought me a 2.2 liter bottle and I fill it up every day and I drink the whole thing before and after breakfast, lunch and dinner, and I don't get hungry. Now all of a sudden that I am losing weight, like everything just stopped.

In the 7th grade, I went to a new school and I had trouble with some girls. All they saw was my weight and they didn't see me. They were always talking about my size and I used to come home and tell my grandmother that I hated my life. I hated that I was big. I used to sit in my room and eat and eat. Finally, my mother told me to stop eating, stop snacking, go outside and play. My level of activity would involve a trip to the library to read, or to use the computer, or go to my friend's house.

Now, things are much different. I can actually do things that other girls can do. I can do cartwheels. I can do back flips. I can actually run down the street without stopping every 5 seconds just to take a breath. I can run and be happy without anybody telling me, "Oh, we have to wait on you because we know you can't run that fast." Nope, I am just as physically fit as you are. Just because I have a little weight on me doesn't mean I am not like you. I can still run, I can jump.

I took ballet two years ago and I can still do a pirouette in the air with my size. When my mom took me to that dance class, I felt like I was so heavy. No one talked about my weight. Nobody said, "Oh, look at her. She is so big." No one said or did anything negative. All they looked at was how to get me physically fit and active. When I started taking ballet, I started dropping weight very, very quickly. They kept me in the class and I loved it. I took jazz and tap, and when we had the final show at Proviso East in the auditorium my mother saw me on stage. I was doing so many things and all she could say was, "That's my baby! That is my baby!" I got a standing ovation from the crowd for what I was doing because I was doing it for me, not for everybody else. I didn't do it because they thought I should lose weight so I could look like them.

I didn't do it so I could fit into smaller jeans. I am losing weight for me so I can be happy. It is for me.

I am trying to do this for me because I used to be a small, petite girl that ran around the house. Now, I am a big girl and they just looked at me. My aunt used to pick on me because I was big and she was skinny. She used to call me chunk-a-load and big mamma. I used to look at her and think: "Why can't I just kill you and get it over with?" My mom said, "Don't let her get to you. You don't look like her." I said, "Okay. I can deal with that. I can do half of the stuff she can't anyway." So it looked like it was finally getting through.

Dr. Carter has been like a second mother to me telling me things that my mom has told me to do for the past three years and I have been doing it ever since. It is so amazing that I can do these things. I have done so many things in my life and I thank them for all of their help and support. My mother has got me into the Jewels program. Dr. Carter has helped me with my weight issues and my eating habits, and she has taught me not to eat when I am angry or upset. We have so much in common because she has struggled with the same things. We have taken this challenge together. My mother, grandmother, Dr. Carter and I have been doing this together. It is because of their love and support that I am here today, and not in the streets.

Facilitating Change in Diverse, Individual Contexts

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Researchers are always looking for the big finding. When we study the African American population, however, the findings are often small and embedded in complex systems. It is only when we connect them together that we began to get a clearer picture of processes and mechanisms associated with health outcomes. Perhaps then we might come to understand patterns of obesity among groups such as African American men.

Data taken from an article by Ogden and colleagues that was published in JAMA in 2006 show the prevalence of overweight, obesity and extreme obesity in African American males. It is important to understand the patterns associated with a group before making comparison to another. In 1999-2000, roughly 61 percent of all African American males over the age of 20 could be considered overweight or obese. However when we look at the prevalence of obesity among this group in 2003-2004, we see almost a 9 point increase. This is a disturbing trend indeed. When we compare them to other men highlighted in the article, we see this change in obesity prevalence is greater than those among non-Hispanic whites and Mexican-American men. You see a similar finding when you look at the obesity category. You see that the increase for this group is higher than the increases for the other two groups. When we look at males age 20-39, we see a roughly 15 point increase in the prevalence levels of obesity for African American men ages 20-39. Something is going on with young adult African American men that requires our attention.

My task was to talk about ways in which we can facilitate change. We as academics spend a great deal of time interpreting or making sense of observations, but we do very little to change disturbing trends and patterns. We spend a lot of time thinking about change, and we talk a lot about interventions. But the challenge is to move from theory to action and practice. I believe that researchers are individuals who can partner with communities to address problems within them. But it takes a collective effort. One of the important things to remember when we think about obesity among African American men is that there may be fewer social consequences for excessive weight and excessive weight gain among this group. Excessive weight has been shown to have negative consequences for women. However, the literature examining the social consequences of excessive weight for men is sparse. One of the few articles on this topic was published in 2006. The authors found that African American men had fewer social stigmas than did white males. However, the sample they looked at essentially were college-aged men, so it is not a representative sample.

When we look at popular culture images, rap artists for example, we see a variety of sizes. LL Cool J, a 40-year-old rapper/actor, appears on the cover of this month's *Men's Fitness.* His would seem to be the image of fitness to which people would aspire. But when you look in the rap community, there also are popular individuals whose images are completely different. When we think about this, questions come to mind; *How large is too large?* Each of these individuals has a following, but do we see them with respect to their size. In the '80s, Heavy D (another rap artist), popularized being "large and in charge." Being heavy was seen as something positive. We see that these ideas still resonate, and we have to begin to think about that as part of our context. The other part of the context we need to think about is that health may not be an immediate concern because people are thinking about other things. It may not be at the top of their priority list. A man's health typically becomes a concern when it impairs his ability to carry out normal tasks. That is, health becomes relevant only when it becomes an impediment.

The other thing that we really talked about a lot in the late '80s and early '90s is the concept of nihilism (having a grim outlook with respect to life.) You can see this in Majors and Billison's work published in 1992, and Elijah Anderson's work. *Why prolong the agony? You want me to live eight years longer? Why would I want to do that? If I am struggling now, long life is not necessarily a good thing for me. I am going to die anyway, so I am going to do what I want to do.* So when we begin to think about what is in the minds of individuals as we begin to go out and advocate for health, we have to understand the context in which they operate.

Another element relates to the psychology of oppression (when societal inequality becomes embedded in individual consciousness.) You can see this in the work of Franz Fanon. The primary site of oppression is actually within the individual. Consider this: if a goldfish that has grown and matured within a fishbowl is put into the ocean, it will swim and move and behave as if it is still in the fishbowl. Its boundaries have become internalized.

The invisibility syndrome. There is a wonderful quote from Ralph Ellison: *"I am an invisible man. I am invisible, understand, simply because people refuse to see me."* One of the things that I found is that individuals often talked about African American males being absent. They aren't absent; we know exactly where they are. They are just invisible. The disturbing trends we mentioned earlier were mentioned in an article published in 2006 in JAMA. *Where is the research?* The lack of attention has to do with the fact that we have a population that is invisible to consciousness with respect to positive outcomes. There was a book written in 1969 by Sidney Wilhelm, *Who Needs the Negro?* The thesis of this book is that you have a population that had a function in society (labor) but now has little utility or value. So one of the things that is happening in the context for African American men is the notion of *Who am I? Who do you see when you look at me?* So when we think about African American males, we must consider the invisibility syndrome.

Stress. Another factor involved with the context of African American males is stress. The concept of stress has resisted definition since it was first introduced in the 1930s by Hans Selye, and what I want to highlight is that stress means a lot of things to a lot of people, which is a researcher's nightmare because you can't measure it. *If it means all of these things how do we really know what stress is?* So, for the purpose of this discussion, stress is a condition whereby environmental factors tax or exceed the adaptive capability of individuals to a point where psychological and physiological responses may place them at risk for disease. When we examine stress and disease, we tend to focus on the direct relationship between stress and an outcome, which comes out of a process called *general adaptation syndrome*, introduced in the 1930s. The human body's response to an event is called the alarm phase (fight or flight) when cortisol levels begin to increase, hormones are excreted, and the body gets into a state of alarm, a state of readiness. If that threat or situation continues, the body moves into the resistance phase, and begins to prepare for a longer-term response. So, if the fire alarm goes off, our senses are heightened and we all run out of the room; once we get out of the room and we feel safe, everything goes down. But longer-term stressors (financial stress for example) can tax us, and eventually, the body runs out of ways to cope and it reaches a point of exhaustion. It is at this point that you experience disease. It is a pretty simple idea.

Most stress research, particularly in the laboratory, focuses on acute stress, so researchers tend to examine how individuals respond to stress. The prevailing argument in the literature is long-term exposure to a stressful environment could be associated with tissue damage and disease. However, a close examination of the scientific literature reveals that science has yet to demonstrate a concrete definitive connection between stress and disease. A study published in 2006 in the Nutrition, Metabolism and Cardiovascular Diseases Journal examined the impact of long term stress on metabolic syndrome factors in 16 non-obese, healthy young male sailors that were involved in a competitive race around the world. Stress was not quantified in any particular way. The authors assumed that the demands of the race, sleep disturbances, cramped quarters, and sea weather were the major stress, which speaks to how we conceptualize and measure stress. We are not thinking about what it really is. The results indicated that the stress of the race caused an increase in abdominal obesity, and a slight increase in blood pressure, even when controlling with diet and exercise. The finding, however, is not definitive: how do we know it was the cramped quarters, sleep disturbances, etc? We have no way of knowing. This is typical of what is published when we begin to think about the relationship between stress and outcomes. We need to be more definitive.

I conceptualize stress by thinking about an indirect relationship. Stress may aggravate chronic disease. For example, stress can be a factor associated with the progression of kidney disease to kidney failure. Stress also can have implications for disease through correlations with other psychosocial factors and co-morbid behaviors, which give us an indication of how complicated stress can be.

When we consider the simplicity of the initial model, we recognize there is a great deal of work to be done to conceptualize, operationalize, and measure stress.

Co-morbid behaviors are actions and activities that place individuals at risk for adverse health outcomes: sedentary lifestyle, poor dietary habits, alcohol use, and smoking. Sometimes we think people engage in these behaviors for relaxation, or to relieve stress, but they all place individuals at risk for adverse health outcomes. We have to begin to consider the context in which individuals operate.

It is also important to consider the tremendous variation among African American men. Making inferences about African American men based on population data is an ecological fallacy that can lead one to develop interventions that have little impact. The research community must consider the heterogeneity within a particular population, especially a diverse population such as African Americans.

Interdependence. Age is an important factor to consider when thinking about African American men. Stressors change over time. That is, the things stressing people at 30 may not stress them at 60. We learn how to cope over time, so we have to begin to think about how to have age-graded stress measures.

How do we measure SES and unemployment with respect to stress? One of the things about unemployment figures is that they only capture those individuals who are actively seeking work. What about those who have dropped out of the job market? What about the individual with empty pockets who seems to be dressed reasonably well, but has no money? Or those that have jobs, but who may be a paycheck or two away from being impoverished? We have to begin to consider these factors to be part of the conceptualization and operationalization of socioeconomic status.

Gender differences. We often talk about gender differences, but we have to be more precise. The difference between males and females is a sex difference. When we begin to talk about gender we have to be more precise because 'gender' means that people are operating in gendered ways. What does masculinity mean for an African American male? What does it mean for an African American boy to aspire to be a man? We don't know. With the interaction between age and gender, we begin to see how these things connect; only then can we get a clearer, more comprehensive picture of contexts in which individuals are embedded.

An African American man can feel like he is trying to push the world uphill, and overeating is one of many ways in which he may cope with stress. It is important to remember that food can be understood from a social, economic, and historical context. Food was the only resource that many African Americans had. Being able to feed a family could be more important than the nutritional value of the meal. We have to begin to understand that during sharecropping times, frying was the fastest way to cook food. For some, it was the only way to cook because they did not have stoves. History and economics also gives us an opportunity to reconsider what we classify as "soul food" (sometimes considered southern food). Traveling to some of the poorer white regions of the country (e. g., mountains of Appalachia) will reveal that African Americans are not the only group with poor eating habits. African Americans are not the only ones who fry things and cook food with butter and fat. This may explain why Waffle House is like McDonalds in the South. There seems to be one of every corner.

Sedentary behavior. To a population that has grown up with parents and grandparents who worked 2-3 jobs to make ends meet, rest was seen as a luxury. It was seen as something that people who had means could do. The ability to take time and take a nap is seen as positive. So, levels of inactivity must be put into a cultural context. When we think about health outcomes, it is imperative that we consider the social, economic, historical, and community contexts in which individuals and groups are embedded. It is also important to note how important factors independently and collectively work to influence outcomes such as excessive weight and weight gain. Once we do this, we are on the path to gaining a clearer understanding of obesity among groups like African American men.

Session VI: Social, Political, and Economic Context for Obesity Policy

Current Trends in Obesity-Related Policies and Their Implications

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When salmon have matured they swim upstream to reach their spawning grounds and reproduce. Like a salmon's journey, the upstream journey in obesity prevention is a challenging one: swimming upstream against rugged rapids, leaping over rocky waterfalls, traversing fish ladders, avoiding fish nets and hooks, and staying clear of hungry bears. Swimming upstream is pretty analogous to what you have to do to make changes that will prevent obesity. Upstream strategies are an approach to addressing health problems by approaching the social determinants to environmental and policy intervention, and in particular they hold great promise to improve health among disadvantaged groups. Potentially if we are successful with them, they can provide the greatest benefit to the largest number of people. Social class differentials are due, in part, to objective differentials, but in particular to differences in access to public and private resources. The different access to healthier foods and healthier affordable foods may be playing a key role in some excess overweight and obesity among minorities. Many authoritative groups have put out the word that in order to bring about social change we need policy advocacy and organizational change. We also need to work at multiple levels of influence. So the idea here is not to say that we need only to work on policies and environments, but that we have to work along with the individual and interpersonal levels at the community and institutional levels.

Many people believe that we have built a world that supports unhealthy habits (transportation infrastructure, neighborhood design, portion size inflation, opportunities to eat everywhere, and more sedentary entertainment). The long-term solutions of built environment and policy changes are essential because, even if we focus on changing individuals, they will have a much more difficult time keeping those changes in check without changes in the environments around them. But, I think in the end we realize that it is not an either/or situation. It is both individual and environmental. In fact, we have a lot to learn yet about how people living in a so-called toxic environment still manage not to be overweight.

In terms of nutrition, the trends in our society (cost, time pressures) have pushed us in the direction of reliance on fast foods. Convenience foods, the higher prices of fruits and vegetables, and what we get at restaurants have all encouraged us to put on weight rather than control it. Portion sizes have increased dramatically, and the cost per portion has dropped dramatically.

When we think about food and physical activity, environments and policies, it is useful to make a distinction between food and physical activity issues, as far as environments go. In healthcare policy, one of the quickest ways to get new healthcare coverage on a large scale is to fund Medicare and Medicaid because they are the largest health insurers in the country. There are several pathways to making a difference in the food supply: food assistance programs that feed millions of people (or dictate the foods that are available to them), and organizations like schools and workplaces and so also provide that pathway.

Although we often talk about environments and policies like they are two different things, it is very hard to separate them. *How do they go together?* Our policies really shape our environment.

If you think about school lunch programs, mandatory physical education (or no physical education because of No Child Left Behind) you can see how policies really shape the environment. There are many policies, like price supports for food commodities, food assistance policies and so on. But there is a lot about environment that goes on in the absence of specific policies, and there is a market driven economy and there are markets that drive our behaviors irrespective of consumer demand. They stimulate demand. One hundred years ago, fizzy carbonated sweet drinks just were not part of the American diet; they didn't exist. Well, the guy who started Coca-Cola came up with a formula and found that people liked it. Still, one had to create a demand for it. So, markets actually change our environment in huge ways without having a policy, per se. Also, policies can be health promoting or not so health promoting -- many of us remember when ketchup was proposed for consideration as a vegetable in school lunches.

There are a lot of key challenges, like healthy foods, price, and taxation issues. Taxation issues around food actually vary from state to state, and vary even more from municipality to municipality. It is often argued that food shouldn't be taxed. Commercial decision makers exercise a great deal of control over what is actually available and how it is priced.

Consumers pay a premium for healthier choices. Healthier versions of popular food items cost roughly 1.5 times as much as the regular versions. Fast food restaurants get a bad rap but is it any healthier eating in a sit-down restaurant? Using data from our NEMS Restaurant measurement study (2007), we found that one fifth of the sit down restaurants and a little over one third of the fast food restaurants didn't even have one healthy entrée available. Then when you get to the proportion of entrees that are healthy, none of those restaurants reach close to 10 percent. So, sit down restaurants aren't necessarily the counterpoint to fast food restaurants.

As far as kids' menus, less than half of restaurants that have kids' menus have anything that could be identified as a healthy choice for kids; however, a lot of them serve juice, and more and more of them are serving low fat milk. Sales and profit are paramount. Senior restaurant executives at top chains generally believe that the demand for healthy food is limited, and that advertising healthy food is "putting lipstick on a pig." Pressures are mounting in restaurants and we are starting to hear some different rhetoric, but whether we will see that followed by action is something we need to keep looking at.

Every month I turn around and there are two or three new reviews of food environments and policies. Recently, I conducted a review of reviews on physical activity, environment and interventions. I looked at 19 different review articles which examined correlates and interventions (which range from narrative to semi-quantitative). Each review and each article looks at different definitions of food nutrition environments and policies. Some of them look at nutrient outcomes and some of them look at weight outcomes, and they look at a whole range of different populations. A few general conclusions come out of these studies:

- There is a surplus of cross-sectional correlation designs.
- There is a lot of what I call studies "without people". We learn a lot from spatial analysis, census data, going out and checking menus and so forth.
- We need to put those results together with people as well; for that we mostly rely on surveys and interviews and in some cases observations.

What we know is that people with lower incomes in minority populations have poorer food nutrition environments as do rural communities. Restaurant point of purchase information seems to work in the short-term, and price reductions in certain healthier foods also seem to work in the short-term and on an aggregate basis. That is, you will sell more of the low fat food if you reduce the price, but will people who wouldn't have eaten that food eat it? That seems to be less clear.

How do we change the disparities in nutrition environments? Can they be changed, and if we change them, are they likely to make a difference? There are emerging findings, but a lot less information, about environments and quality of diet and weight, and whether policies actually get implemented when they come out. Let's look at a few of the hot issues that are currently being tried and ask the questions, will they work? Are there downsides? Are they just?

We shouldn't only be concerned with whether they work but whether they are fair and whether there is a social justice component in reducing disparities in availability.

In poor minority communities, particularly in urban areas, people have less access to supermarkets. Supermarkets have more fresh produce, and lower prices. *Will it work to add supermarkets?* It is beginning to happen in some communities, there is a chain that is growing particularly in California in some of the communities that don't have access to supermarkets. *Will it work?* We don't know yet. It may work for certain people. Are *there downsides? How will it impact the local merchants? Will it put small, locally-owned stores out of business?* That may not be a concern; it may be that the small stores in the neighborhood are not owned by people living in the neighborhood. *And what will it do to pricing? Will the food be more expensive or less expensive? Will people just buy more food in general if there are more stores in their neighborhood*? Again, we don't really know. An important consideration is the current state of the economy. There are whispers of information from the industry that some of those new stores aren't doing very well. *Why?* The price of gasoline and inflation, including the price of food, is going up. There is also the population ratio. In one community in Northern California, in a community of 50,000 people without a supermarket, a supermarket is moving in. It is a small supermarket because it is a fairly densely populated area. The industry recommendation is one supermarket for 10,000 people. If you put one in a community with 50,000 people, what are the odds that any benefit is actually going to be derived with that ratio? If the supermarkets hire local workers, if unemployment is an issue, it may be good for the local economy. Clearly, there are many questions and few answers.

What about allowing no new fast food restaurants? Recently, the Los Angeles City Council ordered a one-year moratorium on new fast food restaurants in South Los Angeles which has a very high density of fast food restaurants. *Will it work?* Probably not. This initiative is unlikely to be successful because they are not removing any fast food restaurants that already exist. They are framing the legislation to encouraging sit down restaurants to move in. *Is that likely to help?* No. *Are there downsides?* Sure, if McDonalds wants to put more McDonalds in that neighborhood it is a downside for them. *Are there downsides for the local folks?* Probably not, they are still going to have enormously high access to fast food. So, increasing the number of sit down restaurants probably won't work. *Is it fair?* Well yes, it is fair if the community supports it. It is not necessarily fair if government decides for the good of the community that it will prohibit the building of new fast food restaurants.

Menu calorie labeling. A handful of cities and state legislatures are considering (or already have passed) legislation regarding calorie labeling on menus. *Will it work?* It will probably work for some people. *Are there downsides?* The amount of corporate opposition would lead you to think so. They say people will be addicted, they will go home and they will pig out. Some of the arguments are amusing when you think about it. In fact, menu calorie labeling (like package labeling) will lead people to see how many calories are actually in the food that they eat, and in fact it may ultimately lead to changes in menus. If the portion size is more strictly controlled, maybe some of the food preparation will change. *Is it just?* In my opinion, yes, it is just. People have a right to know what they are eating. From a public health standpoint, it will be industry's responsibility to bear, but it makes sense and is fair.

Parks and playgrounds. *If you build them will they come? If you clean them up, will people come back?* Parks and playgrounds will probably work for physical activity. There is a cost, and there is a need to maintain and monitor them for safety. Parks need amenities, design, and upkeep. *Is it just?* Sure, especially if there is a deficit in minority and poor neighborhoods. *But will it reduce weight?* That has yet to be examined. Ultimately, if physical activity increases enough, it could happen. *Will walkable neighborhoods work?* They will likely increase physical activity among residents. It is pretty hard to put them in existing areas and infrastructure maintenance and cost is an issue. In Atlanta, most of the new walkable neighborhoods are expensive, and even those that have affordable housing really beg the definition of affordability. *Is it just?* Yes, if the community supports it. Buildings designed for activity probably increases physical activity. *Are there downsides?* Yes.

What We Can Learn from Other Countries

Denmark has very high taxes on food. They reduced the tax on fruits and vegetables and whole grains, like 3 percent, and increased the tax on butter, cheese, beef, pork and fatty meats, and added a sugar tax. One of the key things was that the government income didn't change in the process. The restructured tax increased the intake of fruits and vegetables and fiber among the poor, and decreased their intake of saturated fat and sugar. It had little, if any, impact on the more affluent population because they are not very sensitive to that kind of price change. If we in the U.S. were to follow this example, there would be a tremendous potential to actually reduce disparity and improve health.

Recommendations for Research

There are a lot of things that we don't know very much about, like how long it takes for environmental and policy changes to really make a difference. *Will they help some people more than others? Who changes? How much change is needed to make a significant difference?*

We need more study designs that:

- Contrast key determinants, covariates, outcomes
- Test alternative explanations

We need to use natural experiments to study prospects for change, such as:

- Mandatory calorie labeling on menus
- Introduction of new light rail systems
- New supermarkets in urban minority neighborhoods

Let us end with a quote from Marie Curie, a white woman who had some pretty wise words, a really smart lady. She said, *"You cannot help to build a better world without improving the individual. To that end, each of us must work for his or her own improvement and at the same time share a general responsibility for all humanity, particularly those to whom we can be most useful."* And I think there are quite a few people that we can learn from.

NOTE. Many of the statements in this talk are based on references from the published literature. A list of references is available from the speaker/author upon request (kglanz@sph.emory.edu).

Current Trends in Obesity-Related Policies and Their Implications *(Part 2)*

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Nothing, in my opinion, can be more sincere than to do things not to be paid or out of demand but out of a deep concern for our country. In many respects what we are talking about is the future of our country and the obesity related diseases that beset it.

This concern lay bare in the form of a question. How are we to go about addressing obesity, diabetes, hypertension, or other co-morbidities in the realm of public policy and what is the role of Congress in that effort?

To address such questions one must understand the context in which Congressional public policy emanates. Congressional policy—when it comes to obesity—is often sandwiched somewhere between hope and absurdity.

Now why do I believe this? Consider the fact that many of you have spent years researching, studying, documenting, reporting, and authoring papers on the importance of the federal government investing in obesity prevention. Yet year after year, Congress finds itself not investing (but rather divesting) in those efforts or offering short-sighted solutions to obesity related problems.

Some may argue that Congress is just not reading the right papers or perhaps they are not getting the right reports. I would argue that Congress has gotten the right papers, and has gotten the right reports, but it has made a choice. *And the question for those in the audience is how can your work and research impact/interfere with the choice between hope and absurdity when it comes to Congressional policy making?*

We cannot begin to answer this question or start the discussion without talking about the poor state of our healthcare system as a backdrop. I think one of the most striking reports about our healthcare system was published in 2005 by the United Nations Development Program. It was a report that catalogued the myriad inequalities in our system and boldly stated the following, *"Although the United States has been highly rated in a number of healthcare indicators and has shining examples in the ability to deliver healthcare throughout various sectors of the country, it ignores massive problems in sub-populations. Absolute healthcare indicators do not reflect the suffering exhibited by these populations. Thus, the United States' public private healthcare system should not be used as a model for other countries as it exacerbates inequality in access to care, and in health status between the haves and the have nots."*

In many respects, this is old news. We know today that the costs related to obesity are burdening our healthcare system, and we know how expensive and inefficient healthcare delivery is for minority populations. Many of you are also aware that we (the federal government) spend about $700 billion administering our healthcare system, and arrange about $1.7 trillion dollars in healthcare delivery payments; these numbers will only increase as we age as a country. To put this amount of money into context, we spend collectively ($2.4 trillion) on our healthcare system which is more than the GDP of 172 countries.

But, our discussion is not well-served by a litany of esoteric and mind-numbing statistics. To make the discussion a bit more personal, let's examine a cultural phenomenon in the African American community known as "big mama." Why bring "big mama" into the public policy discussion? Well, as an African American male, raised in a female-headed household, I have certain sensitivity as to what direction public policy takes and its impact on "big mama."

But what I view as a personal interest must be a directive for researchers because half of the African American households in this country are headed by women, many of whom are or will eventually become "big mama."

So, the notion of keeping "big mama" alive and healthy is not only important for her personal health, but it also is important for the community-based prevention and intervention programs, which in many respects will involve her. Now, I do not mean to feminize the issue of obesity. Rather, I want to highlight the role of women in African American society and how they are at the heart of its social fabric.

Another problem that we must address is the lack of a comprehensive strategy for addressing the obesity epidemic. Nowhere was this problem more clearly described than in a 2007 US Government Accounting Office study, which states: *"Currently the federal government has no effective framework across government entities that exist in organizing or coordinating its effort towards addressing obesity."* Simple and plain: we have none.

Many questions come to mind: Why don't we have one? How do we get one? In what direction should obesity policy be aimed?

Although we have some 350 obesity-related programs, I want to highlight the fact that only three of them are mandatorily funded. (The federal government is obligated to provide services to all persons who fall under the purview of a 'mandatorily funded' program.) The remaining 347 programs are discretionary, which means they can be reduced or eliminated at any time. More upsetting, is the fact that 65 percent of our obesity-related programs are funded via earmark (programs that depend on the ability of an individual member of Congress to secure targeted-funding annually).

So when you hear people speak about the direction of earmarks and whether or not that is government waste or appropriate government spending, I would argue today that even with the meagerness of our obesity agenda, nearly half of it would be eliminated tomorrow if we got rid of earmarks. This is neither an argument for or against earmarks; this is simply stating a fact.

Somewhere between Hope and Absurdity

Next, I think it is important for us to look at the structure of public policy deliberations in Congress. Whenever you offer policy advice to a member of Congress, there are three things that guide your thought process:

1. Distribution of Pain -- If we are to move policy X or policy Y in one direction or another, how well is the pain distributed to impact or affect the system?

2. Distribution of Rewards -- If we are to move policy X or policy Y in one direction or another, how well or how evenly distributed are those rewards throughout the system?

3. Distribution of Justice -- Once the policy is implemented, how well will people be able to impact the direction of the policy along the way, to keep it just in its intention, implementation, and outcome?

Consider food and produce labeling. One of the hardest industries to regulate is the food industry, particularly the meat and produce industries. Today we have a bill that has been pending before Congress for almost 17 months. Its purpose is to revamp our ability to regulate food products given the sharp rise of contamination among food products. Some would say that should be a no-brainer. Unless I am mistaken, at least every four and a half weeks since the beginning of 2007 there has been a new food contamination outbreak, so that should be a very simple position to adopt.

But what we find is gridlock in Congress over an industry that says it has no need for more regulation. It should be noted that the meat industry has never been regulated in the same fashion as drugs and cosmetics. The industry has preferred to push for self-regulation. So here we are today questioning the distributive pain, distributive rewards, and distributive justice with regard to self-regulating products that we know may to lead to further outbreaks of contamination.

Second, let's turn our attention to the idea of taxing not only junk food, but particularly, foods with corn syrup, and trans fats. If we were to tax these products because of their relatedness to obesity, perhaps we could mitigate their consumption. But, anytime you address taxation issues, you delve deeply into distributive pain, distributive reward, and distributive justice.

We need only to look at how tax increases have impacted tobacco consumption. In many respects, tobacco consumption has decreased because of increased taxes. But other problems have emerged and taken shape. For example, let's say taxes on cigarettes are raised in New York and New Jersey. In response to that increase a pseudo underground market arises where people from New York and New Jersey go down to South Carolina and North Carolina (which have lower cigarettes taxes), purchase large quantities of cigarettes and take them back to New York and New Jersey and redistribute them up there.

Not to argue against taxes, but how do you guard against creating some type of underground market that will dilute the effectiveness of your taxation policy? And then there is the issue of high fructose corn syrup. Do we and how should we tax high fructose corn syrup? The use of high fructose corn syrup in the last 40 years has increased by over 5000 percent. So how do you tax it? Do you tax individual companies like Monsanto and ConAgra, i.e. make it more expensive for them to purchase the product and refine it in order to be able to put it into food products? Do we increase the tax on the food product that actually has the high fructose corn syrup in it? Or do we tax the concentration, meaning how much high fructose corn syrup is dangerous versus not dangerous?

Farm Incentives

How can we better target financial incentives to farmers? There is a dynamic here when targeting incentives to farmers. In the case of the 2008 farm bill that was recently signed into law (I should say the bill that was vetoed, overridden and then placed into law). When we think about farms, often we think about "Chuck" and "Roger" out there pushing the plow. But the reality is 37 percent of all farmable land in the US is actually farmed by agribusiness, not by your family farmer. And depending on how you want to measure it, that number actually can increase, depending on how you categorize certain farming/livestock techniques and farm income.

Right now, we give federal subsidies or direct payment to farmers (and those who are connected with farming) who make as much as $750,000 annually. So if we are going to incentivize at the farmer level, we have to then reconstruct who we think the farmer is and how he/she/it is delivering products to market, particularly if we are going to push public policy to incentivize them to deliver more fruits and vegetables to minority communities.

Informed Sources

If one were to look at policies that are put into place, one might wonder from where Congress draws its information for public policy formulation. For this discussion, I return to the context I offered earlier: somewhere between hope and absurdity. There is no white paper, no report, no journal article, no study that would have produced the Medicare Modernization Act bill that we passed in 2003, which has a large gap in prescription drug coverage even as seniors are paying premiums into the Medicare system. But in many respects, it is not about the quality of any paper, but how what is stated in the paper reverberates in different public policy corridors. I ask today, as you publish your articles or as you publish your studies, where are the echo chambers for those studies?

Take for example the July 2007 article by James Fowler (Christakis and Fowler, 2007) which looked at obesity patterns over 32 years among 12,000 individual adults who were part of the original Framingham Heart Study project. The reason that study is often cited in public policy debates is because members of Congress, their staffs and think tanks are citing it. If you go talk to Senator Tom Harkin (who chairs the Senate Agriculture Subcommittee), or Congressman Colin Peterson (who chairs the House Agriculture Committee), you would hear them quote it, and you would hear other members on their committees quote it thus it has an echo chamber.

The reason this study is treated this way is because the people that received funding for that study were brought before Congress to testify about the study. When they went to testify about the study, it became part of the official Congressional Record. Now, when people like me (congressional staffers) want to write legislation, we take information from the Congressional Record to base it on. Hence, my point is that your efforts should be less about what journal you publish in and more about where is your echo chamber.
This is how you are going to impact the choice that is made between hope and absurdity.

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