
Personal Health Practices of Urban Adults in Alabama: Davis Avenue Community Study

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Synopsis

The need to establish baseline data on and monitor the personal health practices and beliefs of

adults in a community served by health care facilities is well documented. The purpose of the survey was to determine health care practices, personal health behaviors, and health services use of the adults living in the Davis Avenue Community (DAC), a six-census tract area located in Mobile, AL. The DAC's population is approximately 95 percent black.

Using methods developed by the National Center for Health Statistics, 402 adults between the ages of 20 and 69 years were interviewed by telephone by trained personnel to ascertain the health-related characteristics of residents in this health services area. Information collected in this survey provided the staff of the Franklin Memorial Primary Health Center, who provide primary health care in the area, with an empirical base on which to plan and market health promotion and education programs for the health services area.

THE IMPORTANCE OF BEING ABLE to describe characteristics of target groups in a community was identified in "Promoting Health/Preventing Disease: Objectives for the Nation" (1). To develop programs that will best meet the public's needs, planners must be able to describe the nature and extent of the health problems of the people of the community. A first step identified in practically all planning sources is the development of objectives based on valid data. As noted in "Promoting Health/Preventing Disease," the "most salient common feature across the 15 areas is the need for better data, both to profile current health status and to track progress toward the established objectives. . . . The paucity of data is particularly handicapping for state and local organizations and agencies seeking to set and track progress toward their own local priorities and objectives for prevention" (1).

The need, then, to establish baselines and to monitor the occurrence of health practices and beliefs among persons in selected communities is well established. In this paper we describe how one primary health care center in a southern, urban, inner-city area conducted a community assessment of the health practices of its residents.

Background

The Franklin Memorial Primary Health Center (FMPHC), as part of a statewide health education-risk reduction initiative, conducted an assessment of current health practices of adults in the Davis Avenue Community. The Davis Avenue Community (DAC), the primary service area of the center, is located within the city limits of Mobile, AL, and consists of six census tracts—Nos. 2, 3, 4.01, 4.02, 5, and 6. According to the 1980 census data, approximately 95 percent of the residents were black. The FMPHC was established in 1975 to increase the availability and accessibility of health care to DAC residents. This urban health center provides primary health care, screening, and referral services to community agencies and local medical facilities through three major components—physician services, health program outreach, and community volunteers. Since its inception the center has had a continuing interest in conducting risk factor assessments of DAC residents. This survey, one of the first such studies to examine in detail urban inner-city adults in a predominantly black community in the South, was conducted in response to a

need perceived by the FMPHC's staff to monitor health care practices of adults in the Davis Avenue Community.

Objectives

The objectives of the Personal Health Practices and Beliefs Survey (PHPBS) were to obtain the following information:

1. self-perceived health status
2. use of personal health services
3. frequency of contact with health care providers including routine ambulatory and inpatient care
4. personal health behaviors including smoking, drinking, seatbelt use, and exercise
5. experience with selected common health conditions
6. perceived level of control over health
7. interest in and willingness to pay for health promotion services
8. current health and employment statuses

The principal questions in this survey were drawn from the National Survey of Personal Health Practices and Consequences (NSPHPC) (2,3). Several questions were based on discussions in a recent report on financing for health education services in the United States (4). The National Center for Health Statistics (NCHS) collected data on the extent and distribution of personal health practices, stability of these practices over time, and their relationship to morbidity (5,6). Before the NSPHPC survey, a number of surveys of health practices and health status had been conducted on smoking, alcohol consumption, and exercise (2,5,7-14). These reports provided the empirical base for the National Survey of Personal Health Practices and Consequences and for the Personal Health Practices and Beliefs Survey (PHPBS) of the Franklin center.

Methods

Survey population—location. The target population in this survey was all adults between the ages of 20 and 69 years who resided in a six-census tract area known locally as the Davis Avenue Community. The 1980 U.S. census data indicated that approximately 16,800 people resided in the DAC, of whom 55 percent were females and 45 percent males. Approximately 75 percent of the residents, or 12,600, met the 20-69 years age criterion for selection as respondents, and 58 percent of these were female. A sample of 402 residents, approximately 3 percent

of the population, was selected as the study sample. A pilot study consisting of 78 adults between the ages of 20 and 69 was conducted to field test the random digit dialing process and the instrument. Six local volunteers (junior college students) and three members of the professional staff of the Health Education-Risk Reduction Program at the Franklin Memorial Primary Health Center were trained to conduct the interviews. No problems were encountered in the pilot study. In fact, because of the excellent quality of the data and the procedures, the pilot data were added to the overall sample.

Data for the PHPBS were collected by interviewers trained by the principal investigator and research assistant. The sample was selected using a random digit dialing system. The three principal telephone exchanges which served the DAC were identified by the Department of Forecasting-Statistics of the Mobile Telephone Company. Since the three major exchanges served 92 percent of the households, and at least 91 percent of the households in the DAC had a telephone, 84 percent of households were within the sampling frame.

Telephone numbers were selected using random digit dialing described in the literature (3,15-17). Each of the three exchanges served approximately an equal proportion of households; therefore, one-third of the respondents were to be chosen from each exchange. Interviewers referred to a table of random numbers to select a four-digit number in order of appearance. This four-digit number was paired with the three-digit telephone exchange to derive the seven-digit number for each possible telephone household. The interviewer followed a standardized interviewing procedure. The first person answering, 20 years of age or older, was interviewed. Data presented in this report are based on completed telephone interviews with one adult respondent in each sample household. Since data derived from a pilot study indicated that 97.5 percent of the completed calls were made on the first two attempts, only three attempts were made per number. The instrument used in this health interview survey consisted of 56 questions. It was an abbreviated version of the 1979 NSPHPC instrument, which consisted of 153 questions. (A copy of the instrument is available by request to the senior author.) A response rate of approximately 80 percent was achieved, the same rate as that reported for the NSPHPC survey (3).

The results section of this paper is divided into nine components: comparability of the sample to 1980 census, demographics, health status characteristics, control over health, physical condition,

health care practices, female health care practices, personal health practices, and health promotion programs. Implications for the center are discussed in the final section of the paper.

Results

Comparability of sample to 1980 census. The comparability of the 1980 census data for the six-census tract area and the 1982 DAC survey for selected characteristics was examined. The age distribution for the Davis Avenue Community did not differ dramatically from proportions reported in the 1980 U.S. census (table 1). Comparisons could not be made for persons 65–69 years because the census grouping is 65–74 years. For each category the difference between the two surveys was approximately 5 percent or less. Additional demographic information is presented in table 2. As noted, the differences between the 1980 census and the 1982 DAC groups were more pronounced for race and sex than those noted for age. No major differences between the two groups were noted for number of persons per household who were under 65 years of age or for the unemployment rate compared with Mobile's. The DAC survey reached approximately 10 percent more females and approximately 10 percent fewer blacks than the 1980 census. Female respondents to this survey outnumbered men by a ratio of two to one. Females more often than males responded to telephone interviewing both in Alabama (18) and nationally (3). In addition, a higher proportion of black respondents than white ones either refused to participate in the survey or could not be reached because of the lack of telephone service, or both. Because of the possible perceived sensitivity of the question, race or age was not asked of the refusals. Census data in tables 1 and 2 for the six DAC census tracts were derived from the Census Population and Housing, 1980 Summary Tape, File 1A, Microfiche Technical Documentation, prepared by Data Access and Use staff, Data User Services Division, Bureau of the Census, Washington, DC, 1981.

Demographics. Data presented in table 3 confirm that the 403 respondents were evenly distributed among educational levels. In comparing the DAC data in table 3 to the NSPHPC data, the Davis Avenue Community residents had less education than the national sample. For example, for the DAC survey, 32 percent reported having less than 12 years of education, while 19 percent of the NSPHPC sample were at this educational level. The

Table 1. Proportions of persons participating in the 1980 U.S. census and the 1982 Davis Avenue Community survey, by age group

Age	1980 census	1982 survey	Difference
20–24	19.3	21.7	+2.4
25–29	13.8	18.0	+4.2
30–34	10.2	15.5	+5.3
35–44	16.4	15.3	-1.1
45–54	18.9	13.1	-5.8
55–59	11.2	8.3	-2.9
60–69	10.2	8.0	-2.2
Total	100.0	100.0	...

Table 2. Selected characteristics and differences, Davis Avenue Community residents ages 20–69 years and 1980 U.S. census (percentages)

Variable	1980 census (N = 16,843)	1982 survey (N = 400)	Difference
Females	57.8	67.3	+9.5
Males	42.2	32.7	-9.5
Black	96.3	86.3	-10.0
Other	3.7	13.7	+10.0
Number of persons per household	3.3	3.3	0.0
Unemployment	14.6	15.6	+1.0

proportions of high school graduates noted in the DAC survey, 30 percent of the men and 39 percent of the women, were comparable to the NSPHPC's proportions of 32 percent and 41 percent, respectively.

The availability of health insurance, the employment status, and income were assessed. Fourteen percent of the residents had no health insurance; this is 50 percent higher than the proportion of persons, usually cited in the literature as 9–10 percent, without health insurance in the United States. Of those surveyed, 16 percent were unemployed, the same as the rate for Mobile in 1982. Total yearly family incomes for the sample were as follows:

Income	Percent
Less than \$5,000	31.0
\$5,000–\$10,000	22.4
\$10,000–\$15,000	12.2
\$15,000–\$25,000	11.9
\$25,000 or more	9.7
No answer, don't know	12.7

The proportion of the DAC reporting income unknown, 12.7 percent, was much higher than the 7 percent reported in the NSPHPC (19).

Table 3. Percentage distribution of persons 20–69 years by age group, sex, and educational level, 1982 Davis Avenue Community survey

Sex and age group	Less than 12 years	12 years	More than 12 years	All levels
Men, total	31	30	40	100
20–34 years	7	17	27	50
35–49 years	5	5	10	20
50–69 years	19	8	3	30
Women, total	33	39	28	100
20–34 years	8	24	19	51
35–49 years	6	9	4	19
50–69 years	19	6	4	30

Health status characteristics. Information presented in table 4 provides an insight into the health status reported by the residents of the DAC. As noted, about one in four men and one in three women rated their health status as fair or poor. The older men and women in the community perceived themselves as being in poor or fair health. The percentage rating their health in these categories in the DAC survey is double the 16–17 percent with this rating in the NSPHPC (3).

Responses to question 26 in table 4 describe the extent to which respondents believed that they were taking care of their health. As noted, one in three of the respondents reported that they were doing a fair or poor job of taking care of themselves. Comparison with the NSPHPC survey results shows the same proportion, one in three persons (3).

Question 28 of the DAC survey asked, “Since 1980 would you say that your health is now better or worse or about the same?” Worse was the response of 17 percent of the men and 15 percent of the women (table 4). Another concern of the survey was the interviewees’ perceptions of their health compared with that of others of their age. One in five felt that their health compared with that of peers was poor or fair; the choice was poor, fair, good, or excellent. These proportions are slightly higher than those in the national survey: 15 percent for men and 17 percent for women (3).

An examination of the responses to two questions (Nos. 30 and 31) on social support revealed that 10 percent did not have a close relative with whom they could discuss private matters. Twenty-five percent reported not having a close friend to talk to or call on for help. These percentages are dramatically higher than those for the NSPHPC survey, in which only 5.8 percent of the respondents had no close relative and 5.6 percent, no close friend.

Control over health. The data in table 4 suggest that the older man or woman tends to take care of his or her own health problems first, more so than the more educated, younger respondents. Approximately 1 man in 10 and 1 woman in 3 reported that when they have a health problem they usually make contact with a health care provider.

A modest proportion of the respondents, 15 percent of the men and 18 percent of the women, indicated that they had little or no control over their future health. This figure is higher than the 10.4 percent of the men and 7.8 percent of the women in the NSPHPC who reported that they had little or no control over their health.

A much larger proportion of women than men (46 versus 29 percent) in the Mobile survey reported that they have worried some or a great deal about their health in the last year. The 46 percent noted in table 4 for the women in the DAC survey is quite a bit higher than for women respondents in the NSPHPC. In that survey, 27 percent of the men and 33 percent of the women worried at least some about their health in the last year.

Both surveys assessed whether individuals perceived that they could not prevent high blood pressure. The proportions reported in the two surveys were comparable: 14 percent for the men and 8 percent for the women in the Davis Avenue Community and 12.5 and 8.7, respectively, for the men and women in the national survey. An overall assessment, then, of the health control characteristics of the DAC respondents would be that adults, particularly the women, believe that they have little or no control over their future health and worry about it some or much more than women surveyed in the NSPHPC.

Physical condition. Approximately one in three men and one in two women consider themselves overweight (table 5). These proportions were about the same as the 34.4 percent of the men and 50.3 percent of the women in the national survey who considered themselves overweight. Two in five men and one in two women reported not getting enough exercise (table 5). These proportions are smaller than those for the national survey, in which 53.4 percent of the men and 62.7 percent of the women reported that they exercise less than they needed.

Health care practices. The data presented in table 4 on the recency of physical examination by a physician showed a difference between the two survey groups. For the Davis Avenue Community, 59 percent of the men and 64 percent of the women reported that they had had a physical examination in

Table 4. Responses to survey questions concerning health status, control over health, and health care practices of persons 20–69 years, by sex and age group (percentages)

Survey question	Men			Women				
	Total	20–34 years	35–49 years	50–69 years	Total	20–34 years	35–49 years	50–69 years
<i>Health status</i>								
1. Poor or fair health status	28	7	8	13	36	11	8	17
26. Poor or fair self-care	34	18	8	8	30	15	7	9
28. Health worse than in 1980	17	6	3	8	15	6	3	6
33. Poor or fair health compared with others	21	8	5	9	23	11	5	8
<i>Control over health</i>								
14a. Control over health—no self-care	12	4	2	7	36	13	6	16
32. Little or no control	15	4	5	7	18	8	4	6
29. Some or much worry	29	13	8	8	46	20	9	16
34. Cannot prevent high blood pressure	14	6	2	5	8	3	2	4
<i>Health practice</i>								
5. Physical examination in past year	59	30	10	19	64	35	11	17
15a. More than 2 visits to physician in past 3 months ..	8	5	2	2	15	6	3	6
15b. More than 2 calls to physician in past 3 months ...	5	3	1	1	4	2	0	2
16. Admitted to a hospital in past year	17	8	3	5	25	15	6	4
19. Current smoker	42	18	10	14	35	20	5	10
20. Never smoked	37	25	6	6	50	26	11	13
20. Current drinker	70	40	15	15	52	33	11	8
25. Never or infrequently used seatbelts	70	39	12	18	77	39	16	22

the last 12 months; the proportions reported in the national survey were 36.8 percent for men and 49.3 percent for women.

Few respondents, about 1 in 10, indicated that they had had two or more visits to a physician in the last 3 months. Twice as many women (15 percent) as men (8 percent) reported at least two visits.

How frequently individuals called a physician about a particular health problem was also assessed. A small proportion, 5 percent of men and 4 percent of women, had spoken to a physician at least twice in the last 3 months.

As noted in table 4, 17 percent of the men reported having been admitted to the hospital at least once in the past year, as did 25 percent of the women, a higher proportion than the NSPHPC figures of 9.8 percent for men and 16.4 percent for women. Approximately 7 percent reported that they had seen a "local healer" (a person without medical training) for a health problem in the last year (question 14b). The respondent defined the term "local healer."

DAC residents used a number of different health care facilities. In response to "When you have a health problem where do you usually go first?" (question 14c), 70.1 percent reported physician's office, 9.2 percent reported emergency room, 8.2 percent reported a health department clinic, and 7.5 percent reported a hospital outpatient department. Only 2.2 percent named the Franklin center as a primary source of care, and 3 percent indicated that

they had no source of health care. These data suggested a service use pattern different from the stereotype often mentioned for urban, predominantly black residents. Only a small proportion used the emergency room as the first choice of care for a health problem. This information suggested that persons in this community have a regular source of health care and, when needed, they had access to a local service of their choice.

Health care practices of women. As noted in table 6, 38 percent of the women reported not having had a Pap smear in the last year. This percentage compared favorably with the national survey statistic of 41 percent. The proportion of women who had not had a breast examination by a physician in the last year was also similar to that reported in the national survey—33 percent for DAC and 37.5 percent for the NSPHPC.

Personal health practices. Approximately 42 percent of the men and 35 percent of the women currently smoked (table 4). These figures are slightly higher but comparable to those reported by the NSPHPC and other sources such as the Surgeon General's 1981 report, which indicated that approximately 39 percent of males and 33 percent of females are current smokers. As noted in table 4, in the DAC, 37 percent of the men and 50 percent of the women indicated that they had never smoked. In examining data on attempts to quit (not shown in the tables),

Table 5. Proportion of persons 20–69 years who considered themselves overweight and not getting enough exercise by age group, sex, and educational level

Educational level	Men				Women			
	All	20–34 years	35–49 years	50–69 years	All	20–34 years	35–49 years	50–69 years
<i>Overweight</i>								
All levels	35	12	11	12	47	21	11	15
Less than 12 years	13	2	3	8	17	4	4	9
12 years	12	5	3	4	18	9	6	3
More than 12 years	11	6	5	0	12	7	2	3
<i>Not enough exercise</i>								
All levels	41	22	8	12	54	31	10	12
Less than 12 years	10	2	1	8	15	4	4	7
12 years	16	8	4	4	23	15	4	3
More than 12 years	15	12	3	0	15	11	2	2

almost 50 percent of current smokers indicated that they had made a serious attempt in the past year to stop (question 22). Two-thirds of those who had attempted to stop tried to do so at least twice in the last year, and one-third reported three or more attempts in the last year.

The percentages of drinkers reported in table 4—70 percent of the men and 52 percent of the women—were lower than the 81 percent of the men and 67 percent of the women who were current drinkers in the NSPHPC survey.

A very high proportion of the respondents indicated that they never or infrequently used their seatbelts. Seatbelt use by 77 percent of the women was approximately equal to the national average of 80 percent who used them infrequently. The men in this survey, however, reported never or infrequently using seatbelts 70 percent of the time—approximately 10 percent more than that reported in the national survey. An overall assessment of the comparability of personal health practices of the DAC and the NSPHPC groups suggested modest differences of 10 percent or less.

Health promotion programs. Two questions not included in the NCHS survey related to interest in participating in local community health promotion programs such as exercise, smoking cessation, diet, stress management, and weight control. Also of interest to a community health center such as Franklin Memorial that might offer such programs was whether respondents would be willing to pay for services. Data in table 7 confirm the interest in participating and willingness to pay for community health programs among 332 Davis Avenue residents. (These two questions were not asked of the first 78 persons in the pilot survey.)

Only about one-third of the men and one-fifth of the women were not interested in participating in such a program. The large proportion, however, who expressed an interest in community health promotion programs represent a significant pool of persons eligible to participate if programs were available. Only 18 percent of the men and 21 percent of the women who were interested indicated that they would not pay a fee to help defray the expenses of providing such services. Admittedly, the dollar amounts in table 7 are small, but this response suggests that residents are willing to defray part of the program cost (20).

Implications for the Health Center

These data provided the staff of the Franklin Memorial Primary Health Center with an accurate and current description of selected personal health practices and beliefs of adult residents in their service area. For many of the characteristics examined, persons in the Davis Avenue Community did not differ from those in the 1980 census data or the 1979 NSPHPC.

One of the first concerns noted in this study was the significant proportion, about one-third of the respondents, who indicated that they did not believe they were doing a good job of taking care of their health. An equal proportion perceived their health as being worse than in 1980, and about 20 percent felt that they were doing only a poor or fair job compared with their peers.

On the positive side, almost two-thirds of the respondents routinely attempted to take care of their health problems themselves before seeking medical attention. Since most residents of this community are eligible for free or low cost health

Table 6. Proportion of women reporting health care practices, by age group and educational level

Educational level	Total	20-34	35-49	50-69
		years	years	years
No Pap smear in last year				
All levels	38	12	10	16
Less than 12 years	17	3	3	11
12 years	13	5	5	3
More than 12 years	8	4	2	3
No breast examination by physician in last year				
All levels	33	12	8	13
Less than 12 years	13	3	2	8
12 years	12	6	4	2
More than 12 years	7	3	2	3

Table 7. Proportion of persons 30-69 years interested in participating and willing to pay for community health promotion programs by age group and sex

Response to question	Total	Men			Women			
		20-34 years	35-49 years	50-69 years	Total	20-34 years	35-49 years	50-69 years
Would participate in program:								
Yes	68	36	15	16	79	46	13	20
No	32	15	5	12	21	7	4	9
Would not pay fee	18	6	4	7	21	11	2	8
Would pay fee of—								
\$ 5	38	19	6	13	43	24	9	10
\$10	18	12	4	1	20	16	1	3
\$15	26	18	9	0	16	10	3	3

care, it is doubtful that this attitude toward self-care is due to a lack of economic resources. Franklin Memorial Primary Health Center could build on the existing individual inclination toward self-care by developing educational programs for common health problems and complaints specific to the self-care needs of the community's adults.

A significant proportion of the residents feel that they can exercise control over their health. It is particularly noteworthy that an extremely high proportion of women expressed some or a great deal of worry about their health. Franklin Memorial's staff should explore in greater depth the reasons for this expressed concern. The center's staff could begin to consider what programs or community organization activities they should implement to meet the special health needs of women in the Davis Avenue Community.

Approximately one-third of the men and one-half of the women reported being overweight; they represent a large pool of eligible participants for community-based programs on diet and weight control. Franklin Memorial could offer such a program. Translating the proportions of those who reported

that they were overweight into actual numbers yields an eligible pool of 1,861 men and 3,423 women.

An equally large pool are potential participants in a community-based exercise program. Extrapolating from the 41 percent of male respondents who said they did not get enough exercise, a total of 2,170 persons might be interested in participating in such programs. Similarly, since 54 percent of the women indicated that they did not get enough exercise, approximately 4,000 women between the ages of 20 and 69 are also potential participants in an exercise program.

Approximately 38 percent of the persons in the community were smokers. A larger proportion, 58 percent, are currently drinkers, and an even larger proportion, about three-fourths, either never use or infrequently use seatbelts. The 38 percent of respondents who identified themselves as smokers indicates that about 4,800 persons are potential participants in smoking cessation efforts that the center might offer. As noted in the personal health practices section, about half of those who were current smokers reported that they had made a serious at-

Table 8. Estimates of participants for selected health promotion-risk factor reduction programs

<i>Risk factor</i>	<i>Proportion</i>	<i>Total eligible</i>	<i>Willing to participate</i>	<i>Probable participants</i>	<i>Willing to pay</i>
Overweight	43.6	5,493	4,175	835	660
Current smoker	37.9	4,775	3,629	723	571
Moderate or severe drinker	18.2	2,293	1,743	350	277
Little or no exercise	50.1	6,312	4,797	959	756
Stress management	40.6	5,116	3,888	778	615
Blood pressure control	83.8	10,534	8,006	1,600	1,264

tempt to stop in the past year. Of those who had attempted to stop, two-thirds had made at least two attempts in the last 12 months.

An underlying assumption in the preceding discussion is that people in this community are interested in and willing to join such programs. Estimates of eligible and probable participants and the proportion willing to pay for health promotion services are presented in table 8. The data in table 7 confirm that 68 percent of the men and 79 percent of the women were extremely positive about such health promotion programs. Accordingly, in table 8 each estimate of the eligible pool could be modified to reflect the estimated proportion who had expressed an interest in participating. If one assumes, for example, that of the more than 3,000 smokers, only 20 percent who had expressed a willingness did participate, a significant number of persons in the DAC could be served by the Franklin Memorial staff. The 20 percent level was chosen because the experience of the authors and discussions with colleagues who deliver community-based health promotion programs suggested that 20 to 25 percent of the people who sign up, show up.

Related to program development is the issue of who will pay. Two-thirds of those interested would be willing to defray part of the cost. The probable participant estimates in table 8 were derived by using 20 percent as a multiplier of the estimated number in the DAC.

Since only 2.2 percent of the residents interviewed identified the Franklin center as the first choice for health care in their community, the center's staff need to market their services and programs much more actively. Like the staffs of many other community-based centers in the country, they need to ask themselves whether the center is serving the broadest range of needs in its target community.

Using data derived from this report as an empirical base for program development, the Franklin Memorial staff should be able to market their services more effectively, serve a wider range of indi-

vidual needs, and increase the interest in and awareness of the existence of the center among Davis Avenue Community residents. Increasingly, health centers are looking to community-based health promotion programs to give them the competitive edge in marketing their services and facility. The information in this report gives the Franklin center a solid basis for planning and marketing existing FMPHC programs and expanding services to include self-care education and health education and health promotion activities.

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Racial Differences in the Relation of Birth Weight and Gestational Age to Neonatal Mortality

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Requests for tearsheets should be addressed to Greg R. Alexander, Department of Preventive Medicine and Community Health, School of Medicine, University of South Carolina, Columbia, SC 29208. Detailed charts of birth-weight- and gestational-age-specific neonatal mortality rates for each racial group are available from the authors.

Synopsis

Utilizing South Carolina live birth-infant death cohort files for the period 1975-80, this study exam-

ines the bivariate distribution of birth weight-gestational age (BW-GA), intrauterine growth curves, and BW-GA specific neonatal mortality rates (NMRs) by race. Comparison of BW-GA distributions revealed an appreciable shift between racial subgroups. Nonwhites, on the average, were born 1 week earlier and 270 grams lighter in weight than whites. In addition to racial differences in rates of intrauterine growth, nonwhites experienced lower BW-GA NMRs than whites in BW-GA categories < 3,000 grams and < 38 weeks. However, the improved mortality experience of nonwhites at more immature BW-GA categories was not consistently present when different cause-specific NMRs were considered.

These persistent racial variations highlight continuing issues regarding both the use of a single norm for defining low birth weight or prematurity and the role of nonsocioeconomic factors related to racial BW-GA distribution and mortality disparities. As birth weight and gestational age represent empirical indicators of the maturity and survivability of an infant at birth, these data and previous supporting research raise further concerns regarding the ability of these indicators to accurately reflect equivalent fetal development and subsequent risk of mortality among racial groups.