

Running the Numbers

*A Periodic Feature to Inform North Carolina Health Care Professionals
about Current Topics in Health Statistics*

*From the State Center for Health Statistics, North Carolina Department of Health and Human Services
<http://www.schs.state.nc.us/SCHS>*

Recent Data Related to a Medical Care Home for North Carolina Residents

Consistent access to primary care is a basic tenet of the medical home, frequently referred to in the commentaries in this issue of the *North Carolina Medical Journal*. Four indicators have been proposed to define and measure the quality of a medical home: 1) having a regular doctor or place of care; 2) ability to contact the provider by telephone; 3) ability to get medical care or advice in the evening or on weekends; and 4) having office visits that are well-organized and on time.¹ A regular primary care provider gets to know the patient and can recommend not only effective treatment but also lifestyle and environmental changes to prevent health problems.

Two of North Carolina's ongoing public health surveillance systems address one aspect that should characterize a good medical home. The Behavioral Risk Factor Surveillance System (BRFSS) is a random telephone survey of North Carolina residents ages 18 and older. The BRFSS is funded by the Centers for Disease Control and Prevention (CDC) and is conducted in all 50 states. In 2007, the most current year of available North Carolina BRFSS data, nearly 15,000 adults were interviewed. The Child Health Assessment and Monitoring Program (CHAMP) is a child health survey specific to North Carolina. CHAMP is a follow-up survey to the BRFSS, where parents or caregivers with a child age 17 or younger in the household are called back (if they agree) for a second interview about the health of the child. In 2007, approximately 2,700 CHAMP interviews were completed. For both BRFSS and CHAMP, the data are self-reported over the telephone, and therefore may not be as reliable as some other means of data collection.

The BRFSS and CHAMP questions that are related to a medical care home are:

Q1: Do you have one person you think of as your personal doctor or health care provider? (BRFSS)

Q2: Do you have one or more persons you think of as the personal doctor or nurse for your child? (CHAMP)

Q3: Does your child have a dentist or dental clinic where (he/she) goes regularly? (CHAMP)

Table 1 shows that 22% of adult BRFSS respondents in 2007 said that they did not have a personal doctor (Q1). The 95% confidence interval shows the range in which we would expect the true value for all North Carolina adults to fall 95% of the time. As a good approximation, if two 95% confidence intervals do not overlap, then the difference between the corresponding percentages is statistically significant at $p < 0.05$.

Males are significantly more likely than females to not have a personal doctor. Other groups who are significantly less likely to have a medical care home are African Americans, Spanish-speaking Hispanics, adults with less education, persons without health insurance, smokers, and persons without diabetes. Results for some of the other BRFSS chronic disease questions are similar to those for diabetes:

adults with chronic lung disease, asthma, and hypertension are much less likely than those without these conditions to report that they do not have a personal doctor. Though not shown in the table, the percentage reporting that they do not have a personal doctor decreases steadily with age, from 47% in the 18-24 age group to 4.5% in the 75+ age group.

Table 1.
2007 BRFSS Survey Results: Percent Who Reported No Personal Doctor (Q1) by Selected Characteristics (Adults Ages 18+)

	Percent with No Personal Doctor	95% Confidence Interval
Total	22.0	20.8-23.3
Gender		
Male	28.8	26.7-30.9
Female	15.7	14.4-17.0
Race		
White	16.8	15.6-18.1
African American	23.6	20.5-26.9
Ethnicity		
Non-Hispanic	18.7	17.5-19.9
Hispanic, English Speaking	22.4	15.6-30.9
Hispanic, Spanish Speaking	75.4	68.8-80.9
Education		
Less than High School	35.6	31.7-39.7
High School or GED	26.2	24.0-28.7
Some Post-High School	17.8	15.6-20.2
College Graduate	14.9	13.1-16.9
Have Health Insurance		
Yes	13.5	12.4-14.6
No	59.3	55.8-62.7
Current Smoker		
No	19.1	17.8-20.5
Yes	32.0	29.0-35.1
Diabetes		
Yes	6.0	4.6-7.8
No	23.9	22.5-25.3

Note: Detailed 2007 BRFSS data tables for this question available at: www.schs.state.nc.us/SCHS/brfss/2007/nc/all/persdoc2.html and www.schs.state.nc.us/SCHS/brfss/2007/nc/risk/persdoc2.html

Table 2 (page 286) shows the 2007 CHAMP results for a personal doctor (Q2) and a regular dentist (Q3). Fewer of the differences within the CHAMP data are statistically significant due to the substantially smaller sample sizes, compared to BRFSS. As before, African American children, Hispanic children, and children of parents with less education are more likely to have their parent/guardian report that they did not have a personal doctor or a regular dentist. Children with special health care needs were more likely than others to have a medical or dental home. There is an increase in the percentage of children without a personal doctor as age increases, while children under age five are much more likely than children in older age groups to have their parent report that they do not have a regular dentist (58% vs. 13% or less) (data not shown in table).

These data illustrate that certain demographic groups or people with certain characteristics in North Carolina are less likely to have a personal doctor or regular dentist. The extremely high percentage of adults with no health insurance who report

that they do not have a personal doctor (59.3%) shows that lack of health insurance is a serious barrier to having a medical care home and continuity of health care. Additional population-based data on phone access to providers, hours of availability of care, and the organization of office care could provide a more refined picture of the status of the medical home in North Carolina.

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Table 2.
2007 CHAMP Survey Results: Percent Reporting No Personal Doctor (Q2) or No Regular Dentist (Q3)
by Selected Characteristics (Children Ages 0-17)

	Percent with No Personal Doctor	95% Confidence Interval	Percent with No Personal Dentist	95% Confidence Interval
Total	17.3	15.6-19.1	22.2	20.3-24.3
Race				
White	14.5	12.7-16.5	18.5	16.4-20.7
African American	22.0	17.7-27.0	25.1	20.4-30.5
Ethnicity				
Hispanic	21.3	16.0-27.8	38.0	30.8-45.8
Non-Hispanic	16.8	15.0-18.7	20.4	18.4-22.5
Parent Education				
Less than High School	26.6	19.2-35.7	42.1	32.9-51.9
High School or GED	23.7	19.5-28.4	26.8	22.4-31.8
Some College	16.8	13.7-20.5	20.8	17.2-24.9
College Graduate	13.3	11.2-15.7	18.0	15.5-20.9
Child with Special Health Care Needs				
Yes	12.8	9.8-16.4	16.8	13.4-21.0
No	18.7	16.7-20.9	23.6	21.3-26.1

Note: Detailed 2007 CHAMP data tables for these questions available at:
www.schs.state.nc.us/SCHS/champ/2007/k07q12.html and
www.schs.state.nc.us/SCHS/champ/2007/k14q01.html

REFERENCE

- 1 Berenson RA, Hammons T, Gans GN, et al. A house is not a home: keeping patients at the center of practice redesign. *Health Aff.* 2008;27(5):1219-1230.

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